

Name of Applicant	Diamond State Port Corporation (DSPC)
Is the Applicant applying as a lead applicant with Private Entity Partners or Joint Applicants	No
Project Name	Edgemoor Container Terminal – Container Yard
Project Description	Expand the Port of Wilmington by constructing a modern, purpose-built container yard featuring all-electric operations and a modern, efficient truck gate to provide new cargo capacity, enhance cargo resiliency, reduce emissions, improve safety, and provide capacity at the existing Port for offshore wind, military, and agricultural cargoes.
Is this a planning project?	No
Is this a project at a coastal, Great Lakes, or inland river port?	Coastal port
Is this project located in a noncontiguous State or U.S. territory?	No
GIS Coordinates (In Latitude and Longitude format)	Latitude 39°45'02.3"N and longitude 75°30'06.5"W (39.750637, -75.501797)
Is the project in an urban or rural area?	Urban (Urbanized Area Code: 69076; Name: Philadelphia, PA--NJ--DE--MD)
Project Zip Code	19801
Is the project located in a Historically Disadvantaged Community (HDC) or a Community Development Zone (CDZ)? (A CDZ is a Choice Neighborhood, Empowerment Zone, Opportunity Zone, or Promise Zone.)	Yes • <u>Historically Disadvantaged Community</u> (Census Tract 107.02, New Castle County, Delaware) • <u>Opportunity Zone ID</u>: 10003010702
Has the same project previously submitted for PIDP funding?	Yes, DSPC applied for FY 2022 PIDP funding for the overall Edgemoor Container Terminal and was not awarded a grant.
Is the applicant applying for other discretionary grant programs in 2023 for the same work or related scopes of work?	Yes, DSPC is likely applying for Infrastructure for Rebuilding America (INFRA) and Mega Grants in FY 2023 for this same work.
Has the applicant previously received TIGER, BUILD, RAISE, FASTLANE, INFRA, or PIDP funding?	Yes, DSPC received a 2013 TIGER Grant for a different project.
PIDP Grant Amount Requested	\$50,000,000
Total Project Cost	\$132,309,434
Total Federal Funding	\$50,000,000
Total Non-Federal Funding	\$82,309,434
Will RRIF or TIFIA funds be used as part of the project financing?	No

FY2023 USDOT PIDP Grant Application

Edgemoor Container Terminal

April 28, 2023



Submitted by:

Diamond State Port Corporation

TABLE OF CONTENTS

ACRONYMS AND ABBREVIATIONS	V
PROJECT SUMMARY	1
1 PROJECT DESCRIPTION	2
1.1 PORT OF WILMINGTON	2
1.2 APPLICANT AND PROJECT PARTIES	4
1.3 TRANSPORTATION CHALLENGES	4
1.4 PROJECT DESCRIPTION AND RELATED PROJECTS	5
1.5 LEVERAGING OTHER PROJECTS, INITIATIVES, AND INVESTMENT	10
2 PROJECT LOCATION	10
2.1 GEOGRAPHICAL INFORMATION	11
2.2 CONNECTIONS TO EXISTING TRANSPORTATION INFRASTRUCTURE	11
2.3 AREA DESCRIPTION.....	12
3 GRANT FUNDS, SOURCES, AND USES OF PROJECT FUNDS	13
3.1 COSTS FOR FY 2023 PIDP PROJECT	13
3.2 SOURCES AND AMOUNT OF FUNDS	14
3.3 NON-FEDERAL FUNDING	14
3.4 FEDERAL FUNDS.....	14
3.5 MANAGING GRANT FUNDING	15
4 MERIT CRITERIA.....	15
4.1 SECTION A: ACHIEVING SAFETY, EFFICIENCY, OR RELIABILITY IMPROVEMENTS	15
4.2 SECTION B: SUPPORTING ECONOMIC VITALITY AT THE REGIONAL OR NATIONAL LEVEL	16
4.3 SECTION C: LEVERAGING FEDERAL FUNDING TO ATTRACT NON-FEDERAL SOURCES OF INFRASTRUCTURE INVESTMENT	17
4.4 SECTION D: PORT RESILIENCE	18
5 SELECTION CONSIDERATIONS.....	19
5.1 SECTION E: CLIMATE CHANGE AND SUSTAINABILITY.....	19
5.2 SECTION F: EQUITY AND JUSTICE ⁴⁰	21
5.3 SECTION G: WORKFORCE DEVELOPMENT, JOB QUALITY, AND WEALTH CREATION.....	23
6 PROJECT READINESS	24
6.1 TECHNICAL CAPACITY, SCHEDULE, AND RISK	24
6.2 ENVIRONMENTAL RISK	26
7 DOMESTIC PREFERENCE.....	29
8 DETERMINATIONS	29

LIST OF TABLES

Table 1-1 – Port of Wilmington Cargoes, 2019–2022	3
Table 1-2 – Port of Wilmington Containerized Twenty-Foot Equivalent Unit Forecast by Trade Lane.....in CBI	
Table 3-1 – Sources and Amounts of Project Cost	14
Table 4-1 – Benefit-Cost Analysis Summary	16
Table 6-1 – Risk Analysis	25
Table 8-1 – Determinations Summary	30

LIST OF FIGURES

Figure 1-1 – Port of Wilmington Overview	2
Figure 1-2 – Port of Wilmington’s Strategic Gateway Location	3
Figure 1-3 – Edgemoor Container Terminal Rendering – Full Buildout	6
Figure 1-4 – Edgemoor Container Terminal Phase 1 Layout	6
Figure 1-5 – Proposed Limits of Dredging	8
Figure 2-1 – Project Location	11
Figure 2-2 – Edgemoor’s Proximity to Transportation Systems ¹⁰	12
Figure 4-1 –Sea Level Rise Impacts: Existing Port (L) and Edgemoor (R)	19
Figure 5-1 – Traffic Proximity, Volume, & Asthma Rates in Surrounding Communities	20
Figure 5-1– Port’s Employee Distribution by Zip Code as of January 2020	23

LIST OF APPENDICES

Appendix A – Cost Estimate
Appendix B – Benefit-Cost Analysis
Appendix C – Schedule
Appendix D – Letters of Support
Appendix E – Non-Federal Funding Commitment Letters
Appendix F – Federal Wage Rate Certification
Appendix G – Permits and Approvals
Appendix H – DSPC Enabling Statute
Appendix I – Design Documents
Appendix J – Location Map File
Appendix K – SF424 Files

ACRONYMS AND ABBREVIATIONS

°F	degree(s) Fahrenheit
BCA	Benefit-Cost Analysis
BCR	Benefit-Cost Ratio
CDF	Confined Disposal Facility
Chiquita	Chiquita Fresh North America
CMP	Compensatory Mitigation Plan
CY	Cubic Yard(s)
DelDOT	Delaware Department of Transportation
DNREC	Delaware Department of Natural Resources and Environmental Control
Dole	Dole Fresh Fruit Company
DRBC	Delaware River Basin Commission
DSPC	Diamond State Port Corporation
EA	Environmental Assessment
Ft	Feet
FY	Fiscal Year
GTUSA	GT USA Wilmington
I-495	Interstate 495
ILA	International Longshoremen’s Association
INFRA	Infrastructure for Rebuilding America
MARAD	U.S. Maritime Administration
MLLW	Mean Lower Low Water
NAVD88	North American Vertical Datum of 1988
NEC	Northeast Corridor
NEPA	<i>National Environmental Policy Act</i>
PIDP	Port Infrastructure Development Program
Port	Port of Wilmington
RCRA	<i>Resource Conservation and Recovery Act</i>
RTG	Rubber-Tired Gantry
State	State of Delaware
SWMU	Solid Waste Management Unit
TEU	Twenty-Foot Equivalent Unit
TIGER	Transportation Investment Generating Economic Recovery
USACE	U.S. Army Corps of Engineers
USC	<i>United States Code</i>
USDOT	U.S. Department of Transportation

PROJECT SUMMARY

The Diamond State Port Corporation, a body corporate and politic established within the Delaware Department of State, requests a **\$50,000,000 grant from the** FY 2023 PIDP to expand the Port of Wilmington and leverage significant ongoing State of Delaware investment for its new purpose-built **Edgemoor Container Terminal that** that will modernize Delaware's international waterborne trade capabilities by building a new, **\$132,309,434** electrified container storage yard and modern truck gate.

The project will spur state, regional, and national economic growth and will provide good-paying union jobs in a historically disadvantaged community, transforming the region. The project will reduce emissions and congestion by allowing for larger and more efficient container ships, electrifying ship-to-shore container cranes, enabling future shore power, continuing the Port's electrification of container yard operations, reducing congestion, and idling within the Port, and reducing the cost to transport cargo.

Without federal funding, the DSPC will not be able to leverage its nearly \$20M investment to date, along with \$83.2M in local funds committed to the project as the grant match. Missing this Federal funding opportunity will mean continued current, inefficient landside port operations, stalled economic growth, and hindered racial equity and port resiliency, while adjacent underserved communities will miss out on emissions reduction benefits.

Achieving Safety, Efficiency, and Reliability

- ✓ Promotes cargo velocity with modern and efficient trucks gates that minimize stopping and congestion and with a new cargo yard designed to maximize terminal and truck efficiencies.
- ✓ Enhances safety for terminal workers and users through innovative technology and infrastructure.
- ✓ Improves reliability and redundancy of the U.S. port system by providing alternate port locations.

Supporting Economic Vitality at the Regional and National Levels

- ✓ Has a competitive and defensible benefit-cost ratio (BCR) of 2.7.
- ✓ Reduces the cost of moving export and import cargoes.

Leveraging Federal Funding to Attract Non-federal Sources of Infrastructure Investment

- ✓ Has an extremely competitive non-federal match of 62.2%.
- ✓ Expands on recent successes to electrify operations at the existing Port.
- ✓ Leverages the recent federally funded Delaware River Navigational Channel deepening.
- ✓ Enables the State to complete and maximize its most important infrastructure investment.
- ✓ DSPC is committed, as a state partner, to long-term asset maintenance and performance.
- ✓ Is broadly supported by agencies, labor, and environmental, industry, and community groups.

Port Resilience

- ✓ Provides capacity in the event of natural disasters, Port closures, and supply chain challenges.
- ✓ The new, higher-elevation facility was selected and designed to be resilient to climate change impacts

Climate Change and Sustainability

- ✓ Reduces VMT, truck congestion, and cargo handling-related emissions in and near the Port.
- ✓ Features electrified operations and enables future shore power of container vessels.
- ✓ Creates additional capacity at the existing terminal for offshore wind and military cargoes.

Equity and Justice and Workforce Development, Job Quality, and Wealth Creation

- ✓ Is a major infrastructure project in a Historically Disadvantaged Community & Opportunity Zone.
- ✓ Creates new good-paying union jobs during construction and long-term operations.
- ✓ Conducted comprehensive community outreach during environmental permitting / approval stage.

Readiness

- ✓ Received all local, state, and Federal permits and approvals.
- ✓ Is fully able to meet FY 2023 PIDP obligations and expenditure deadlines.
- ✓ Demonstrated capability to perform the work and manage federally funded projects.
- ✓ Will not require a Build America, Buy America Act waiver.

1 PROJECT DESCRIPTION

1.1 Port of Wilmington

Overview

The Port of Wilmington (Port) is a full-service, deep-water port and marine terminal with 308 acres and the first major port on the Delaware River, only 63 miles (4 hours) from the Atlantic Ocean.

The Port, which started operations in 1923, is the top North American port for imports of fresh fruit into the United States and has one of the largest dockside cold storage facilities. The Port handles more than 400 vessels per year with more than 5 million tons of import/export cargo annually. The Port is the one of busiest terminals on the Delaware River and has been a major mid-Atlantic import/export gateway for a wide variety of maritime cargo.

The Port has seven deep-water general cargo berths, a petroleum tanker berth, a floating berth for the discharge of juice tankers on the Christina River, and a roll-on/roll-off automobile berth on the Delaware River. Cargo handling equipment includes four multi-purpose gantry cranes capable of handling high-speed container operations and breakbulk and bulk cargo, and one mobile crane with 100-ton lift capability. Figure 1-1 provides an overview of the Port.

Port of Wilmington Mission Statement

To contribute to Delaware's economic vitality by sustaining and promoting the Port of Wilmington as a competitive and viable full service, multi-modal operation by providing for the efficient, economical, and safe handling of cargo.

Port of Wilmington Key Statistics

- 1st Deepwater port on the Delaware River
- Overnight access to 2/3 of North America's Population
- Close proximity & direct access to interstate highways
- Refrigerated container services & facilities
- 2 class 1 railroads
- Onsite US Department of Agriculture and Customs & Border Protection
- Public Private Partnership



- Commodities include:
 - Containerized cargo
 - Fresh fruit
 - Wind turbines
 - Rockets
 - Military
 - Juice concentrate
 - Break bulk (steel & forest)
 - Dry bulk
 - Liquid Bulk
 - Project cargo
 - Livestock
 - Vehicles
 - Lumper and plywood

FIGURE 1-1 – PORT OF WILMINGTON OVERVIEW

Port's Hinterland

As the largest fruit distribution hub in the nation, the hinterland for Wilmington Harbor extends to every geographic region of the United States. Wilmington, the largest city in Delaware, is about 25 miles southwest of Philadelphia and within a short drive to large metropolitan areas, including New York, Baltimore, Pittsburgh, and Washington, DC. Figure 1-2 displays the Port's strategic location.



FIGURE 1-2 – PORT OF WILMINGTON’S STRATEGIC GATEWAY LOCATION¹

The Port ranks as the nation's leading gateway for imports of fresh fruit, bananas, and juice concentrate. North America's leading perishable terminal also handles containerized cargo, primarily for Dole Fresh Fruit Company (Dole) and Chiquita Fresh North America (Chiquita). Refrigerated shippers take advantage of the Port's 850,000-square-ft onsite cold storage complex. Wilmington has also been a successful automobile and roll-on/roll-off hub for more than 30 years. In addition, a variety of breakbulk and bulk cargoes move through the Port, including steel, forest products, dry bulk materials, and petroleum products. In recent years, Wilmington has also become the largest east coast export hub for livestock and a popular gateway for project cargo and wind energy shipments.

Cargo Profile

Table 1-1 displays cargoes moving through Wilmington. Dry bulk commodities include coal, chemical products, crude materials, dry bulk building materials, fertilizers, and food and farm products, which are the main commodities moving through the Port. The Port has seen a new influx of cargo, including offshore wind blades in 2022. The Port has significant cold storage and temperature-controlled capacity and business, with six warehouses aggregating approximately 850,000 square ft, making the Port one of the nation's largest dockside cold storage facilities.

Table 1-1 – Port of Wilmington Cargoes, 2019–2022

Commodity	2019	2020	2021	2022
Non-Containerized Cargo (tons)	2,939,637	2,362,847	2,728,131	3,020,622
Containerized Cargo (TEUs)	398,099	397,669	384,246	369,416

The Port has also handled military cargo and is supporting rockets bound for Ukraine.

Port's Economic Impact

The Port is essential to Delaware's economy, creating local, regional, and statewide economic benefits, supporting 4,321 jobs annually, and generating \$337 million in business revenue, \$316 million in personal revenue, and \$31 million in state and regional taxes.²

¹ Diamond State Port Corporation.

² AECOM, RK Johns & Associates, Remline, Duffield Associates, and Paul F Richardson Associates. 2016. *Diamond State Port Corporation Strategic Master Plan 2016*. Prepared for Diamond State Port Corporation. July 29.

1.2 Applicant and Project Parties

Diamond State Port Corporation – Applicant and Recipient

DSPC, the Applicant for and would-be Recipient of this FY 2023 PIDP grant, is a body corporate and politic established under Chapter 87, Title 29 of the *Delaware Code* within the Delaware Department of State. The full enabling legislation can be found on *The Delaware Code Online*³, and **Appendix H** provides key excerpts of the language authorizing DSPC to finance and develop the project. DSPC functions as a landlord port and leases land to private terminal operators to handle cargo.

1.3 Transportation Challenges

Ship Size Trends

With the completion of the Panama Canal Lock Expansion in 2016, shipping volumes from Asia to the U.S. Eastern Seaboard are increasing. The increase comes, in part, through the use of new ships that are larger (and more economically and environmentally efficient) than those currently in service and are increasingly calling east coast ports while displacing smaller vessels. These larger vessels are known as New Panamax ships, which have a draft (depth underwater) of 45 ft or more. The Port's existing berths that handle containerized cargo are maintained to a depth of 38 ft, meaning Delaware does not have a facility capable of accepting New Panamax vessels. Therefore, New Panamax ships bound for the Port would need to be light loaded (loaded at a reduced capacity) or lightened before arrival. Both options decrease the efficiency and efficacy of operations, putting the Port at a competitive disadvantage. As vessel sizes increase, ports require deeper channels, larger cranes, stronger and deeper wharves, and more efficient terminal operations.

Cargo Capacity and Velocity

In addition to physically accommodating New Panamax vessels, the **Edgemoor Container Terminal** will add containerized cargo capacity to the supply chain. The existing Port has an annual containerized cargo capacity of approximately 400,000 TEUs, or 675,000 TEUs if fully built out, modernized, and optimized.

SEE CONFIDENTIAL BUSINESS INFORMATION ITEM 1

Roadway Congestion

Cargo volume growth and population growth will increase traffic on the roads unless measures are taken that would allow additional cargo to be shipped via water. According to the 2022 INRIX Global Traffic Scorecard, the Philadelphia region ranked sixth in North America for traffic congestion, with 114 hours lost due to congestion.⁴ As the region's population and demand for cargo grow, congestion on the region's roadways, including heavy-truck traffic, will increase substantially.

Green Operations

The Port's current facilities have been developed over the last century, adapting to cargo demands, shipping trends (such as the invention and implementation of the standard shipping container), physical conditions and constraints, and technology. The Port recently constructed and commissioned civil and electrical infrastructure to enable new zero-emissions, rubber-tired gantry (RTG) cranes to move containers in the terminal that also added cargo capacity through densification. Further electrification and greening of terminal operations are only possible on a purpose-built container terminal.

³ <https://delcode.delaware.gov/title29/c087/sc02/index.html>

⁴ INRIX. 2022. *INRIX 2022 Global Traffic Scorecard*.

Resiliency

The existing Port is susceptible to impacts related to sea level rise due to its relatively low elevation. The new Edgemoor Container Terminal is at a higher elevation and, therefore, will be more resilient to sea level rise, flooding, storm events, and other climate change effects. Section 4.4 provides additional details. Beyond protecting against sea level rise, the **Edgemoor Container Terminal – Container Yard Project** provides supply-chain resilience in the event of port and supply-chain disruptions on the east coast, such as how COVID shut down ports throughout the US and severely impacted supply chains in 2020, or how Superstorm Sandy shut down New Jersey ports in 2012. Additional ports of call are required to ensure future fluidity of the supply chain, and this project is designed to do just that.

1.4 Project Description and Related Projects

Project History and Need

DSPC and its tenant/operator have invested tens of millions of dollars to electrify operations, expand capacity, enhance safety, increase cargo velocity, and reduce the cost of moving cargo into and through the Port. To meet the increasing demands of international waterborne trade, as larger and deeper vessels call on the Port, and to continue DSPC's mission to contribute to the economic vitality of Delaware and the region, Delaware needs to modernize its port facilities with a purpose-built container terminal. The **Edgemoor Container Terminal – Container Yard Project** does this through construction of a modern two-berth, deep-water container terminal with all-electric container yard operations and a modern and efficient truck gate. Figure 1-3 presents a rendering of the proposed project and Figure 1-4 provides an engineering plan drawing for Phase 1.

Driven by the need to accommodate larger and deeper-draft vessels, the Edgemoor Container Terminal will maintain and strengthen Delaware's international waterborne trade capabilities, an essential part of Delaware's economy, by meeting the rising and evolving demand for modern containerized ports, while electrifying ports operations in accordance with the State of Delaware Coastal Management Program Policy and Procedures.

An FY 2023 PIDP Grant will have a catalytic effect on Delaware and the region by accelerating the Edgemoor Container Terminal development.

SEE CONFIDENTIAL BUSINESS INFORMATION ITEM 1

The project directly increases the Port's container capacity to service the increased demand forecasted by both DSPC's market consultant as well as the US Army Corps in the 204f (see the BCA), as well as its ability to handle containerized cargo in a timely, cost-effective, and environmentally friendly manner.

Project Overview

The project entails redeveloping the approximately 115-acre brownfield Edgemoor site into a multi-user, two-berth containerized cargo port in Newcastle County, Delaware, called **Edgemoor Container Terminal**, approximately 3 miles up the Delaware River from the existing Port. The site was previously a DuPont titanium dioxide production facility and was demolished by DuPont before DSPC's purchase in 2017.

DSPC is applying for an FY 2023 PIDP grant for a portion of the overall project called the – **Edgemoor Container Terminal – Container Yard Project**, details of which are summarized below.

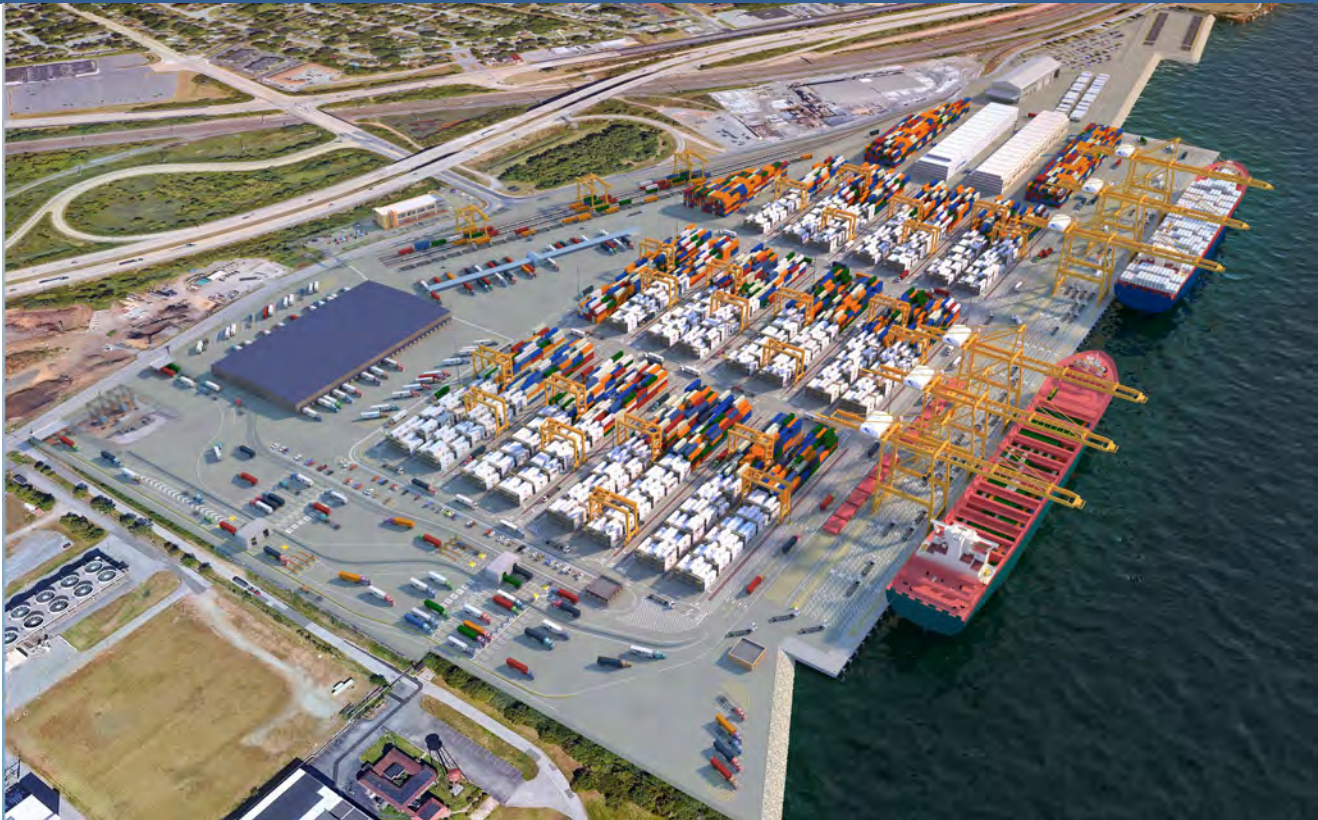


FIGURE 1-3 – EDGEMOOR CONTAINER TERMINAL RENDERING – FULL BUILDOUT ⁵

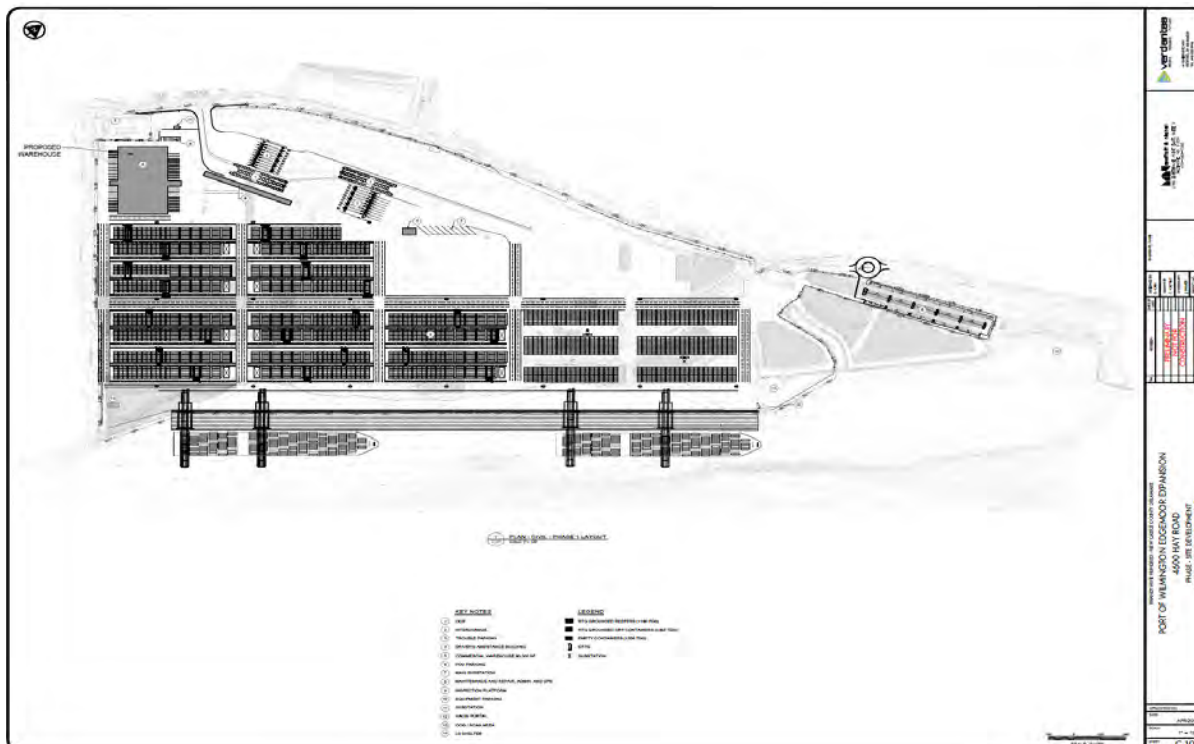


FIGURE 1-4 – EDGEMOOR CONTAINER TERMINAL PHASE 1 LAYOUT ⁶

⁵ Source: Jacobs Engineering Group, Inc. 2018

⁶ Source: Verdantas. 2023

Project Delivery and Staging

The **Edgemoor Container Terminal – Container Yard Project** will be delivered in a phased approach with the goal of implementing container service as soon as possible. Phase 1 includes infrastructure, dredging, road improvements, and container-handling equipment to develop a terminal that can accommodate 750,000 TEUs per year. Container operations and volumes will be migrated from the existing Port to the purpose-built Terminal. Future container volume growth would also be captured at Edgemoor and is expected to include refrigerated and dry loaded containers.

Phase 1 is further broken down into sub-phases, including several pieces of infrastructure that DSPC and other parties are undertaking separate from and in advance of this FY 2023 PIDP grant application. This work includes associated and enabling projects, including a significant dredging project constructing a pile-supported wharf structure, and undertaking early site works, grading, and a light-duty, temporary storage yard. This will result in marine infrastructure fully capable of accommodating modern container vessels. However, without FY 2023 PIDP Grant funding, DSPC will not have the landside infrastructure to fully leverage State and private investment in the wharf and dredging, be able to accommodate the projected container demand, or provide the full environmental, societal, and economic benefits this project is capable of offering.

1. **Enabling and Complementary Project (*outside the scope of this PIDP Grant Project*):** Phase 1 of the Edgemoor Container Terminal – Container Yard Project includes all marine infrastructure and partial construction of the upland facilities to achieve a capacity of 750,000 TEUs per year.

The following are not included in the FY 2023 PIDP Grant Application. These projects include both water and landside connections (state- or federally owned assets) and specialized container-handling equipment. DSPC is actively coordinating with stakeholders, including state and federal regulators, to finalize design, and for equipment specifications.

Dredging the Berth and Access Channel: The berth and access channel will be dredged to a depth of 45 ft below mean lower low water (MLLW), matching the maintained depth of the federal navigation channel of the Delaware River. The area to be dredged is approximately 4,000 ft in length with a width extending from the boundary of the federal navigation channel to approximately 300 ft offshore. DSPC has received the required permits and approvals to begin this work, and USACE has approved DSPC's request to assume maintenance **dredging at a depth of 45 ft below MLLW** once the project is complete.

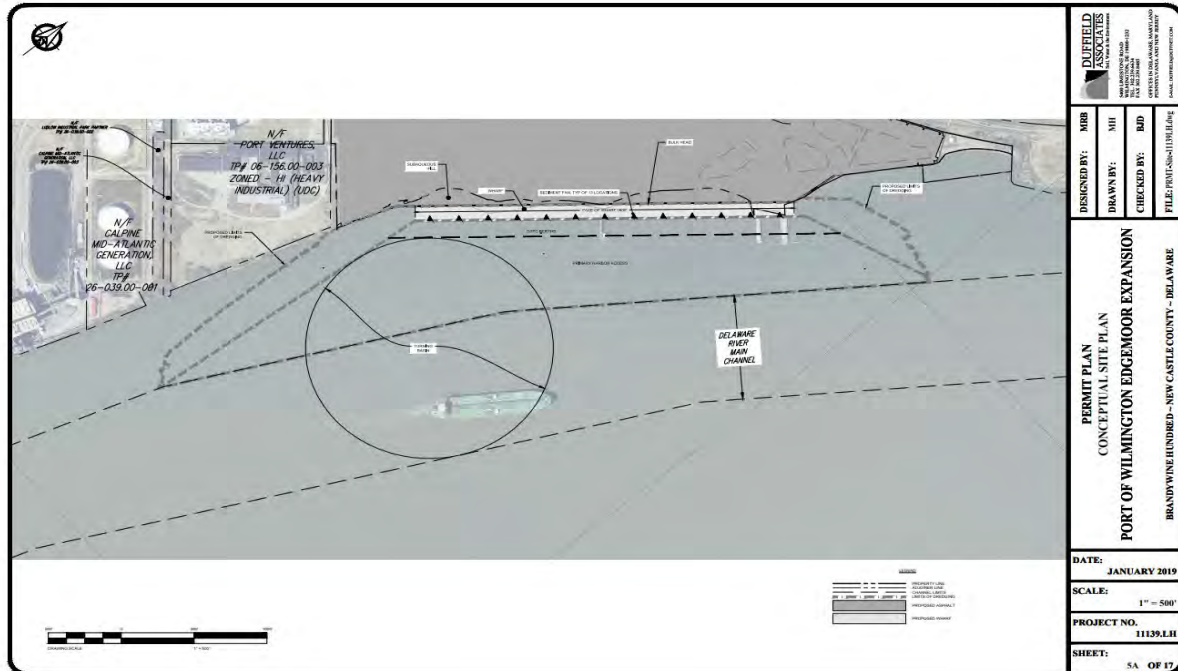


FIGURE 1-5 – PROPOSED LIMITS OF DREDGING⁷

Disposal of Dredged Material: During the initial dredging episode, a portion of the dredged material would be pumped to the Edgemoor site and contained on uplands and de-watered in a single-use confined disposal facility (CDF) constructed for the project until dried sufficiently for re-use. That material would represent approximately 10% of the total volume of material to be dredged and would be limited to sediments removed from Stratum B, which are primarily sandy in texture. DSPC has been approved to re-use these materials in a beneficial manner on upland portions of the site and as fill material landward of the proposed bulkhead. Additionally, DSPC has been approved to dispose of the remainder of the dredged material from initial construction at several active USACE-owned CDFs, known as Wilmington Harbor North, Wilmington Harbor South, Reedy Point North, and Reedy Point South; each is located in Delaware downstream of the dredging site. The material generated by initial construction and all subsequent maintenance dredging would be removed from the dredging area by hydraulic dredge and transported via hydraulic pipeline to one or all USACE’s CDFs, as capacity allows.

- o **Constructing a New Bulkhead Along 3,200 Ft of Shoreline to Stabilize the Shoreline and a New Pile-supported, 2,600-ft-long Wharf:** The project includes the construction of an approximately 2,600-ft long, pile-supported wharf and steel sheet pile retaining wall (bulkhead) along the landward side of the wharf structure. This work coincides with the federal dredging work under Package 2.

The bulkhead would be constructed within the river, below the elevation of mean high water. Imported granular fill would then be placed between the bulkhead and the elevation of mean high water landward of the bulkhead. A portion of the sandy textured dredged material would be placed onsite and dewatered in a single-use CDF constructed for the project. After dewatering, some of that material would also be used as onsite fill for the bulkhead portion of the project. The proposed wharf would be a 325,000-square-ft, high-deck structure waterward of the new bulkhead. It will include a poured concrete structure supported on 4,500 twenty-inch-diameter, concrete-filled steel pipe piles. The project will install infrastructure such as duct banks and raceways in the wharf to allow for installation of shore

⁷ USACE Philadelphia District. 2021. Fact Sheet Article View: Wilmington Harbor. *US Army Corps of Engineers Philadelphia District & Marine Design Center Website*. July 1. <https://www.nap.usace.army.mil/Missions/Factsheets/Fact-Sheet-Article-View/Article/490817/wilmington-harbor/>.

power (cold ironing) capabilities and equipment in the future.

- o Preparatory Earthworks (for example, grading and site improvements): Without an FY 2023 PIDP Grant, DSPC plans to build a simple, minimal paved area to store containers.
 - o Transportation Improvements: Improvements will be made to ensure traffic does not negatively impact the surrounding community. Delaware Department of Transportation (DelDOT) undertook a traffic operational analysis to evaluate potential impacts of the terminal. Because the site is adjacent to major transportation infrastructure, including Interstate 495 (I-495), few improvements are required and are not necessary before initial operations. DelDOT will reconstruct Lighthouse Road and the Edgemoor Culvert.
 - o Phase 1 Container-handling Equipment: DSPC and its tenant will relocate the existing all-electric container-handling yard equipment from the existing Port. At the time of drafting this application, electric container-handling equipment is not manufactured in the United States (not Build America, Buy America-compliant) and, thus, is not included in DSPC's FY 2023 PIDP grant application. DSPC and its tenant will also acquire, install, and commission fully electrified ship-to-shore cranes and miscellaneous small equipment, such as pick-up trucks and forklifts.
2. **FY 2023 PIDP Grant Project**: Phase 1 of the container terminal's upland facilities will include all infrastructure required to load, unload, store, process, and handle containers on approximately 40% of the site. Because of the large, refrigerated container volume, the electrical infrastructure and support facilities to maintain these container operations efficiently must be considered. The yard operations at Edgemoor will be similar to the container operations at a portion of the existing Port, which was recently modernized to increase capacity, use electric RTG cranes, provide electrified plugs for refrigerated containers, and reduce traffic congestion. The scope of work includes the following:
- o Container Yard
 - Site clearing and preparation
 - Heavy duty pavement for container stacking and equipment or vehicle traffic
 - Plugs, racks, foundations, and supporting infrastructure for electric refrigerated container plugs
 - Infrastructure to enable electric RTG yard cranes (cranes will be relocated from the existing Port upon completion of Edgemoor)
 - Stormwater conveyance and discharge
 - Potable water and fire protection systems
 - Low- and medium-voltage electrical and communication distribution (for example, duct banks, substations, and switchgear) to support the terminal's infrastructure and electrified equipment
 - Energy-efficient terminal lighting
 - Security fencing and system
 - o New modern and efficient truck gate complex with separated in-gate and out-gate lanes:
 - Site clearing and preparation
 - Heavy duty pavement for vehicle traffic
 - Weigh-in-motion scales to eliminate trucks stopping on scales
 - Cameras, scanners, sensors, and readers to allow remote gate operations
 - Pedestals for gate transactions and communication with labor
 - Optical character recognition shed for scanning of containers entering and exiting the terminal, located in front of respective gate
 - Driver's assistance building: For truck drivers to assess and resolve issues, including longshore restrooms provided for laborers and operators adjacent to the wharf
 - U.S. Customs and Border Protection scanners
 - o Terminal buildings and ancillary features, including:

- 100,000-square-ft warehouse to promote cargo stripping/stuffing
- Inspection platform: A linear ft raised concrete platform with access on both sides to allow for easy access and inspection of containers
- Ancillary buildings, including electrical substations, pump houses, and other facilities
- A designated area for U.S. Customs and Border Protection to operate and inspect cargo so that these operations can proceed without affecting terminal operation

3. **Future Projects (*outside the scope of this FY 2023 PIDP Grant Project*):** DSPC has planned Edgemoor to be capable of expanding to accommodate more than 1 million TEUs annually as container volumes grow. Future development will occur as demand justifies and will include:

- Maintenance building and wash bay for maintaining and repair terminal equipment
- Modern intermodal rail yard with the following:
 - Additional container storage yard with refrigerated container racks
 - Additional fully electrified RTG yard cranes
 - Additional truck gate lanes
 - Additional miscellaneous small equipment
- Culvert enclosure to create additional cargo storage area

1.5 Leveraging Other Projects, Initiatives, and Investment

The **Edgemoor Container Terminal – Container Yard Project** will leverage major local, state, federal, and private sector infrastructure projects, and initiatives, including the following.

Delaware River Main Channel Deepening Project⁸

USACE undertook an approximately \$300 million project to deepen the Delaware River federal navigation channel from 40 ft to 45 ft along a 103-mile stretch. The deeper channel provides for more efficient transportation of cargo to and from the Delaware River ports, with estimated net annualized benefits of more than \$13 million to the U.S. economy. The deeper channel enables larger ships to serve Edgemoor.

Port of Wilmington Modernization

This **Edgemoor Container Terminal – Container Yard Project** is part of a larger plan to expand, modernize, and electrify Delaware's port facilities. DSPC and its tenant have invested more than \$70 million to upgrade the existing Port to densify and add container capacity, electrify operations (including installing 14 new electrified racks to support refrigerated containers and civil and electrical infrastructure to support zero-emissions RTG cranes), and acquire and commission five new, custom-built electric RTG cranes. DSPC also extended the wharf crane rails, which support the large ship-to-shore cranes, from Berths 1, 2, and 3, all the way to Berth 6. New on-dock warehousing has been expanded to 1 million square ft and is capable of supporting two- and three-high pallets.

2 PROJECT LOCATION

The site is in New Castle County, Delaware, in the Philadelphia-Wilmington area. The property is made up of two tax parcels totaling approximately 115 acres: number 06-153.00-006 on the eastern side of Hay Road/Lighthouse Road and number 06-153.00-003 in the southwestern corner of the intersection of Hay Road and Edgemoor Road. It is the former location of the Chemours titanium dioxide production

⁸ U.S. Army Corps of Engineers (USACE) Philadelphia District. n.d. Delaware River Main Channel Deepening. *US Army Corps of Engineers Philadelphia District & Marine Design Center Website*. <https://www.nap.usace.army.mil/Missions/Civil-Works/Delaware-River-Main-Channel-Deepening/>.

facility. The site is 3 miles and 20 minutes steaming time north of the Port with excellent deep-water, road, and rail access within overnight access to major U.S. markets.

2.1 Geographical Information

The existing Port is the first major port on the Delaware River, just 63.4 miles (4 hours) from the Atlantic Ocean. The Edgemoor Container Terminal will be a coastal seaport along the Delaware River, located approximately 3 miles upriver from the existing Port, at latitude 39°45'02.3"N and longitude 75°30'06.5"W (39.750637, -75.501797). Figure 2-1 presents a location plan.



FIGURE 2-1 – PROJECT LOCATION⁹

2.2 Connections to Existing Transportation Infrastructure

The Project site is on the right descending bank of the Delaware River, about 2 miles north of the confluence with the Christina River, and is bordered on the northwestern side by Hay Road, providing direct access to northbound I-495. The southbound lanes of I-495 are accessed via Delaware State Highway 3, about 800 ft away. I-495 provides access to Interstate 95, the major north/south corridor on the east coast; Interstate 295, providing access to New Jersey and the New Jersey Turnpike; and Delaware State Highway 1, providing access to the southern portion of Delaware.

As depicted on Figure 2-2, regional rail service to the **Edgemoor Container Terminal** site is provided by local rail spurs from Norfolk Southern, which connect to Amtrak's Northeast Corridor (NEC). Both CSXT and Norfolk Southern provide freight rail service from the north using the NEC from Philadelphia, Pennsylvania. Norfolk Southern can provide rail services from the south. The Port is also serviced using local rail spurs off of Amtrak's NEC. The Shellpot Secondary rail line provides Norfolk

⁹ Diamond State Port Corporation (DSPC). 2020. *Wilmington Harbor Edgemoor Expansion Environmental Assessment Technical Document*. March. Revised June. <https://documents.dnrec.delaware.gov/Admin/Documents/dnrec-hearings/2020-P-MULTI-0024/Environmental-Assessment/EDGEMOOR.EATD.revised.pdf>.

Southern rail access to the local tracks and access to the Port. NEC imposes height restrictions on rail service from a maximum height above top of rail of 15 ft and 8 inches to 19 ft, depending on the routes used. Single-stack containers cars, typical box cars, and tank and hopper cars meet these height restrictions. Norfolk Southern provides multi-level automotive rail service from the south because sufficient overhead clearance is available.

Through these impressive and numerous transportation connections, the Port and the **Edgemoor Container Terminal** provide overnight access to 200 million North American consumers.

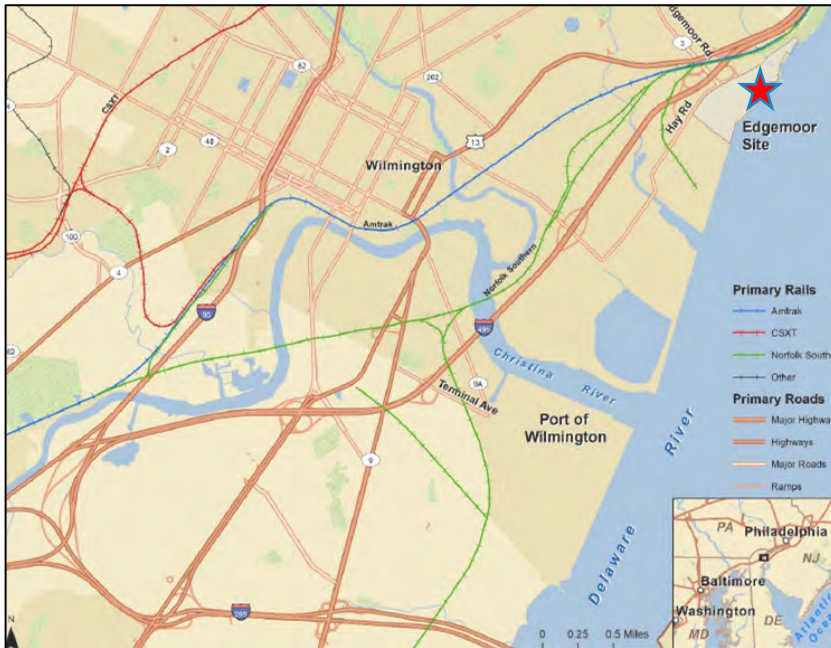


FIGURE 2-2 – EDMOOR’S PROXIMITY TO TRANSPORTATION SYSTEMS ⁹

2.3 Area Description

The project is located in New Castle County, Delaware, an Urbanized Area, named by the 2010 Census as **Philadelphia, PA--NJ--DE--MD** and given the **Urbanized Area Code 69076**.¹⁰ According to the 2010 Census, this Urbanized Area has a population of 481,625. The project is located in Census Tract 107.02, New Castle County, Delaware, a **Historically Disadvantaged Community**¹¹ **that meets the Census Tracts Definition of Areas of Persistent Poverty** and is within a federally designated **Opportunity Zone (ID 10003010702)**, as shown on Figure 2-3.¹² The area has an unemployment rate of 4.7%, higher than the national average of 4.1%.¹³ Figure 2-4 provides regional demographic information. The **Edgemoor Container Terminal** will support economic growth, enhance racial equity, and catalyze future redevelopment and economic prosperity.

¹⁰ U.S. Census Bureau (USCB). 2010. *2010 Census - Urbanized Area Reference Map: Philadelphia, PA--NJ--DE--MD*.

https://www2.census.gov/geo/maps/dc10map/UAUC_RefMap/ua/ua69076_philadelphia_pa--nj--de--md/DC10UA69076_000.pdf.

¹¹ USDOT. n.d. *Transportation Disadvantaged Census Tracts (Historically Disadvantaged Communities)*. Accessed April 25, 2023.

<https://usdot.maps.arcgis.com/apps/dashboards/d6f90dfcc8b44525b04c7ce748a3674a>.

¹² Opportunity Now. n.d. *Opportunity Zones*. Accessed April 25, 2023. <https://opportunityzones.hud.gov/>.

¹³ U.S. Bureau of Labor Statistics. 2023. *Wilmington division Economic Summary*. April 06. https://www.bls.gov/regions/mid-atlantic/summary/blssummary_wilmington_div.pdf.

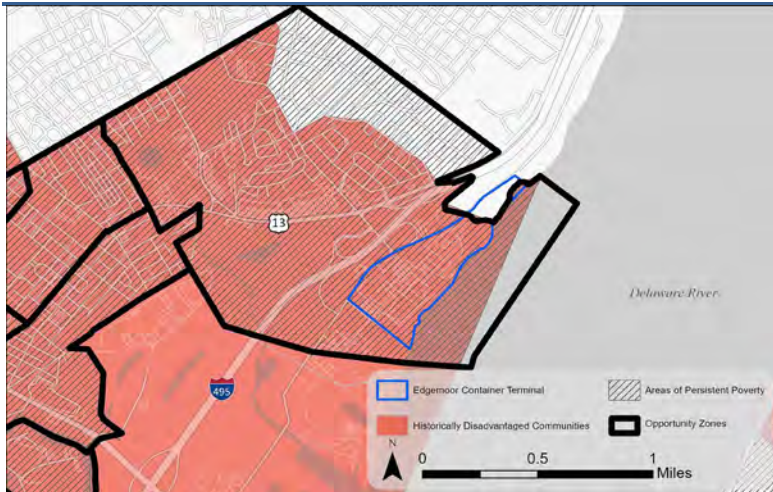


FIGURE 2-3 – HISTORICALLY DISADVANTAGED COMMUNITIES, OPPORTUNITY ZONES, AND AREAS OF PERSISTENT POVERTY

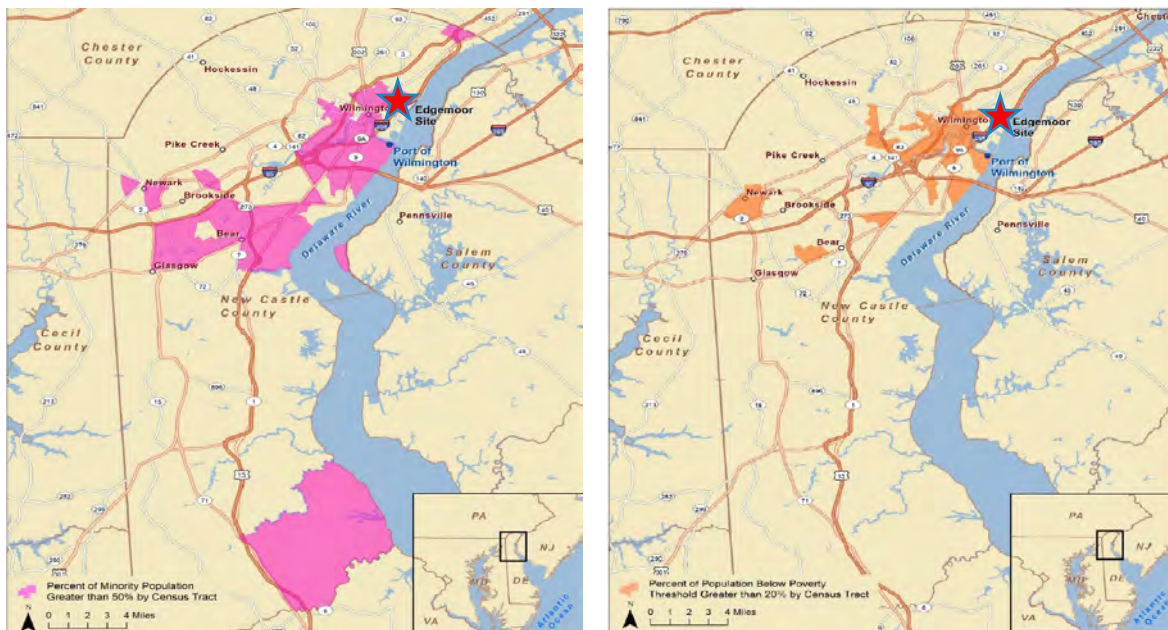


FIGURE 2-4 – REGIONAL DEMOGRAPHICS ⁹

Left: Area of Minority Populations Greater than 50% of Total Population by Census Tract in New Castle County, DE;

Right: Areas Where Greater Than 20% of Population is below Poverty Threshold by Greater than 20% by Census Tract in New Castle County, DE

3 GRANT FUNDS, SOURCES, AND USES OF PROJECT FUNDS

3.1 Costs for FY 2023 PIDP Project

The **Edgemoor Container Terminal – Container Yard Project** has a construction cost of \$132,309,434 and meets the requirements for an FY 2023 PIDP Grant. **Appendix A** includes a detailed cost estimate is well defined and developed and based on recent engineering projects. These project costs do not include any previously incurred expenses, any pre-obligation expenses that will be incurred before award of the PIDP grant, or the separate, ongoing, DSPC and privately funded marine works.

3.2 Sources and Amount of Funds

The DSPC requests **\$50,000,000 in FY 2023 PIDP Grants** to complement \$82,309,434 of funds to be secured by DSPC. Therefore, the project’s funding would be broken down as follows: 37.8% by PIDP and 62.2% by non-federal funds secured by DSPC, with no additional federal funds (Table 3-1). There are no restrictions or conditions on the timing, sequencing, or availability of DSPC funding.

Table 3-1 – Sources and Amounts of Project Cost

Funding Source	Sources and Amounts of Project Costs	
	Dollar Amount	Percentage of Project Cost
PIDP Funds	\$50,000,000.00	37.8%
Other Federal Funds	\$0.00	0.0%
Non-Federal Funds (State of Delaware Match)	\$82,309,434.00	62.2%
Total Cost	\$132,309,434.00	100%

3.3 Non-federal Funding

If an FY 2023 PIDP Grant is awarded, DSPC commits to ensuring its cost share is available and committed to the Project. **Appendix E** contains a commitment letter from Jeffrey W. Bullock, the Secretary of the Delaware Department of State and Chair of DSPC’s Board of Directors, and Rick. Geisenberger, the Secretary of the Delaware Department of Finance and Vice Chair of DSPC.

The Project would be DSPC’s highest priority project, and DSPC is committed to using in-house and external consultant resources to successfully deliver the Project. Because the development of the Edgemoor Container Terminal will be DSPC’s priority, there is no concern about conflict with or prioritization of any other current capital improvement project in terms of its delivery and management. As evidenced by the commitment letter signed by the Secretary of Finance (Vice Chair of DSPC) and Secretary of State (Chair of DSPC) and reference to the recently enacted capital budget, this project is also an extremely high priority for the State of Delaware in general. Simply put, construction of projects, such as the proposed development of the Edgemoor Container Terminal, is not new for DSPC; DSPC has already demonstrated our capability in navigating the complicated permitting landscape, so we are fully confident in our ability to carry out this important project.

3.4 Federal Funds

No federal funds are currently committed to this **Edgemoor Container Terminal – Container Yard** Project for which DSPC is applying for an FY 2023 PIDP Grant. This Project does not include dredging and will not include container-handling equipment, such as cranes. As summarized in Section 6, DSPC sought approval from the USACE to modify extents of the federal navigation channel pursuant to Section 204(f). On March 31, 2023, USACE concluded the request for federal assumption of maintenance of the Wilmington Harbor Edgemoor Expansion Project meets the requirements of Section 204(f) and approved the request for federal assumption of maintenance following construction by DSPC. DSPC will commit to undertaking and funding the dredging and mitigation, and to supplying a portion of the funding relating to disposal of the dredged material. USACE will permit the modification of the project at DSPC’s expense and would undertake maintenance dredging at USACE’s expense. Because USACE does not spend federal dollars on the maintenance dredging until DSPC constructs the facility and operates it for five years, this project is not dependent on USACE investment.

Should DSPC apply for other future discretionary funding, it will ensure total federal funding stays within the allowable maximum limit.

3.5 Managing Grant Funding

DSPC prepared this PIDP Grant Application to be in full compliance with USDOT’s Notice of Funding Opportunity. DSPC has recent experience with USDOT Discretionary Grants and successfully executes large capital projects. DSPC confirms the State has sufficient funds for operations and maintenance of items funded under the PIDP Discretionary Grant that DSPC will own or control. These funds will be available for this project only and will be available until the project is completed.

DSPC is experienced with managing federal grant funding and the procurement processes that accompany such an award. Section 6.1 provides additional information on DSPC’s 2013 USDOT Transportation Investment Generating Economic Recovery (TIGER) Grant for Port improvements that was successfully completed.

4 MERIT CRITERIA

4.1 Section A: Achieving Safety, Efficiency, or Reliability Improvements

Achieving Safety

DSPC and its operator are committed to providing a safe environment for their employees, contractors, and visitors. The **Edgemoor Container Terminal** will improve safety in a multitude of ways, including the following:

- Technologies to reduce accidents between cranes and trucks, cranes and workers, containers and cranes or the ground, trucks, and trucks and general terminal operating equipment
- Drayage truck, terminal tractor, and worker safety
- Reduced VMTs due to terminal and operating efficiency, thereby lowering accident potential

DSPC has planned the Edgemoor Container Terminal Container Yard and Truck gate to be modern, efficiently arranged, and designed for current and future container handling operations. For example, the new gate will utilize weigh-in-motion scales where trucks are weighed without stopping, compared to the current scales on which a truck must stop. This reduction in stopping reduces the potential for truck-to-truck, and truck-to-person accidents and injuries. The gate process and technology will further reduce these contact points and injury potential.

The new container yard will be fully operated with eRTG, making it safer and more efficient than the current mixed eRTG and reach stacker operation. The yard will be designed for modern trucks, with lanes and curves sized appropriately. The eRTGs will have technology to prevent collision and injuries to the truckers and workers, whereas the current reach stackers do not.

As shown in the BCA in **Appendix B**, these plans, provisions, designs, and commitments are expected to result in **4.5 fewer injuries per year and 22.5 fewer property-damage-only crashes per year**. Refer to the BCA and BCA Summary Report for more information.

DSPC’s tenant/operator continues to enhance the safety culture at the Port. In 2021, they initiated a weekly senior level safety meeting to review incidents and enact prevention policies, and recently brought in an insurance company as a third party to assist in identifying and addressing potential safety shortcomings upon. In 2022, a Safety Department Director was added, and in 2023 to date, a full-time Consultant was hired to be on terminal daily and has reviewed warehouse safety and procedures. A new Safety Supervisor is scheduled to start in mid-May and a Safety Compliance Analyst position is open.

In celebration of Global Safety Day on April 28, 2023, DSPC and its tenant/operator are inaugurating a new safety training room equipped with computers and with a suite of online safety video and testing modules that will be made available to all administrative and union employees for new-hire and annual mandatory refresher compliance training. These initiatives have produced a 33% drop in the number of incidents and an 80% reduction in the corresponding total claim amount.

Achieving Efficiency: Cargo Movement and Increased Truck Velocity

As described throughout this application, the **Edgemoor Container Terminal** will create much needed new and efficient containerized cargo capacity that will maintain existing container trade volumes including the Port’s specialty refrigerated cargo and satisfy market demand growth at Edgemoor for containers and at the existing Port for non-containerized cargo. This Project will use modern, manned equipment to be efficient, safe, and resilient while providing good-paying jobs.

The project also encourages efficient movement of cargo off the Port through its new efficient, advanced, and technology-driven truck gate. The gate will minimize truck congestion, stopping, and turn times in the terminal, thereby improving off-terminal traffic on local roads and interstates.

As presented in the **BCA** and **Appendix B**, this new container yard and truck gate will increase cargo velocity by 15 minutes per truck move through the gate, and another 10 minutes through the terminal. At full capacity, that equates to **260,417 hours saved per year**.

Achieving Reliability: Transportation System Reliability and Supply-chain Security

The larger vessels calling east coast ports can have a positive impact on environmental emissions but tend to discharge many more containers at once and spend longer times at berth, creating berth capacity shortages and congestion. The Port of Wilmington currently has a capacity of approximately 400,000 TEUs per year. With significant investment and reduction in non-containerized capacity, it is estimated that the current Port could handle up to 675,000 TEUs per year. The **Edgemoor Container Terminal – Container Yard and Gate** provides this much-needed additional capacity near major population centers by creating 750,000 TEUs per year of containerized cargo capacity, with space to economically build an additional 350,000 TEUs of annual capacity, or a **fully built out capacity of 1,100,000 TEUs per year**, while simultaneously creating capacity at the current port for non-containerized cargo such as wind blades and project or break bulk cargo.

The **Edgemoor Container Terminal** will provide reliability and security for the east coast supply-chain and transportation system by providing a new, higher-elevation, more resilient marine terminal that will be designed to adapt to and protect against climate change (see Sections 4.3 and 4.4).

4.2 Section B: Supporting Economic Vitality at the Regional or National Level

The BCA shows **Edgemoor Container Terminal Project** has a competitive BCR, as summarized in Table 4-1 and detailed in **Appendix B**, due to quantifiable and monetizable benefits.

Table 4-1 – Benefit-Cost Analysis Summary

Current Status/Baseline and Problem to be Addressed	Containerized cargo demand is nearing the Port’s capacity, container vessels are increasing in size, and current terminal operations use mostly diesel-powered equipment.
Change to Baseline/ Alternatives	The new purpose-built Edgemoor Container Terminal’s yard and truck gate will use electric container-handling equipment, enhance terminal safety, promote cargo reliability and resiliency, reduce VMTs and driving, lower the cost of moving cargo, and provide much-needed additional containerized cargo capacity while creating good-paying union jobs in a Historically Disadvantaged Community.
Type of Impacts	1. Reduced Operating Costs, Port Efficiency, Port Reliability a. New terminal equipment reduces the operating cost of each container lift 2. Time Saved a. Efficient layout and operations reduce truck turn time b. Modern and advanced gate reduces stopping and processing time, thereby reducing trucker time in terminal and accidents 3. Emissions Avoided a. More efficient terminal access and on-terminal operations reduces drayage truck VMTs

	b. Efficient terminal layout and spacing reduces terminal VMTs c. Switching container handling equipment types and technology reduces terminal tractor / truck VMTs due to more efficient operations, stacking, and appointments d. Enables electric ship-to-shore cranes compared with current diesel cranes e. Reduces emissions on a per container basis by enabling larger ships f. Switches from diesel powered reefer gensets to electric plugs g. Switches from diesel powered to electric container handling equipment h. Upgrades to new Tier 4 on-terminal trucks vs. current non-Tier 4 trucks 4. Accidents Avoided a. Modern, safe gate and container yard layout and operations reduce accidents, injuries and property damage b. VMT Avoided enhances safety and accidents per mile avoided 5. Other a. Removal of diesel engines lowers equipment maintenance costs each year	
Population Affected by Impacts	The Delaware population, the region, and the broader United States, including the abutting Historically Disadvantaged Community.	
Economic Benefit	Benefit	Present Value at 7% Discount Rate
	Port Operating Cost Savings	\$148.8 million
	Time Saved	\$65.7 million
	Emissions Avoided	\$41.8 million
	CO2	\$11.6 million
	Accidents Avoided	\$12.1 million
	Other	\$10.3 million
Summary of Results	Result	Present Value at 7% Discount Rate
	Total Discounted Benefit	\$290.3 million
	Total Discounted Costs	\$109.4 million
	Benefit-to-cost Ratio	2.7
	Internal Rate of Return	+19.7%
Reference	Appendix B	

Non-monetized Benefits

In addition to the benefits quantified in the BCA, the project offers many non-quantifiable or monetizable benefits, including those described in **Section 3**.

Expected Users or Beneficiaries

This Project will have a catalytic positive impact on the region by providing new good-paying union jobs, reducing emissions on a per container basis, speeding cargo flow, reducing congestion, eliminating supply-chain bottlenecks, and reducing the all-in cost to move goods. Therefore, the expected users and beneficiaries are the local community (a Historically Disadvantaged Community within a federally designated Opportunity Zone) that has a higher-than-average unemployment rate), the Mid-Atlantic region, and the broader east coast and Mid-Atlantic due to the transportation connectivity, new intermodal rail capacity, and port resiliency.

4.3 Section C: Leveraging Federal Funding to Attract Non-Federal Sources of Infrastructure Investment

The **Edgemoor Container Terminal – Container Yard Project** includes a significant 62.2% non-federal match. Further, when considering the ongoing enabling and complementary projects, such as DSPC’s dredging and wharf construction, DelDOT’s access roadway work, and private partner investment, the federal investment is a small piece of this critical project. DSPC is committed to long-term asset performance, maintenance, and operations. Significant private investment in the region will follow to support warehousing, logistics, and supply-chain-related jobs.

4.4 Section D: Port Resilience

Edgemoor will be designed and constructed to be resilient to climate change, flooding, and sea level rise, and will provide resilience in the event of disruptions to the supply chain and other ports. DSPC has strategically selected a higher elevation location to ensure Port resilience as sea levels rise.

Climate

The new terminal is designed to accommodate trends in climate change. The Office of the Delaware State Climatologist published a report written by the State of Delaware Department of Natural Resources and Environmental Control (DNREC) titled, *Climate Change Analysis for Delaware and the Delaware Estuary*. As part of DSPC's design process, its engineer undertook an analysis on the historical climate and related environmental data for Delaware and the Delaware Estuary for 1895 through 2011 to determine statistically significant trends in diverse climate variables for the region. The report concluded that temperatures across Delaware have been increasing at a rate of approximately 0.2-degree Fahrenheit (°F) per decade since 1895. The long-term trend in increasing temperatures is suggested to be caused by increasing minimum temperatures. There are becoming fewer frigid days with temperatures less than 20°F during the winter and the number of days with minimum temperatures above 75°F are becoming more frequent in recent decades. Trends in precipitation indicate large annual and seasonal precipitation variability, with a statistically significant increasing trend in the amount of precipitation of 0.27 inch per decade occurring during autumn. The new terminal is designed to provide resilience under these rapidly changing climate conditions.

Flood

The terminal will be designed to mitigate the impact of a 100-year flood event as defined by FEMA. According to the Flood Insurance Rate Map (FIRM) Numbers 10003C0069LK, 10003C0088L, 10003C0157L, and 10003C0176K¹⁴, the proposed site currently falls primarily within a VE zone, with the downriver end in an AE zone. The delineation of these two zones generally follows the shoreline with the VE zone extending the entire length of the site and shipping berth, with the exception of the downriver end of the site in the area of Solid Waste Management Unit (SWMU) 5 that is in the AE zone. These two zones are defined as follows:

- AE Zone (Site Base Flood Elevation – 9 ft North American Vertical Datum of 1988 [NAVD88]): A hazard zone area within the 100-year flood limits defined with base flood elevations that reflect the combined influence of still-water flood elevations and wave effects less than 3 ft.
- VE Zone (Site Base Flood Elevation – EL 12 ft, 13 ft, 14 ft NAVD88): A coastal high hazard area subject to high velocity water including waves; defined by the 1% annual chance (base) flood limits (also known as the 100-year flood) and wave effects 3 ft or greater. The hazard zone is mapped with base flood elevations reflecting the combined influence of still-water flood elevations, primary frontal dunes, and wave effects 3 ft or greater.

Sea Level Rise

DSPC has proactively factored potential sea level rise into the project design by selecting a location at a higher elevation. ***The existing Port is at a low elevation, making it highly susceptible to impacts from sea level rise, as shown in Figure 4-1. DSPC selected Edgemoor for the State's new port due to its higher elevation, making it significantly less susceptible to sea level rise effects, as shown in Figure 4-1.***

DSPC's design engineer undertook a detailed sea level rise analysis and projections. The results have been incorporated into the design criteria, drawings, and other documents, yielding an advanced project design that maximizes resiliency. For example, the elevation of the wharf deck has been based on the highest forecast 100-year flood plus VE elevation of 14 ft NAVD88, plus the largest USACE forecast

¹⁴ Published by the Federal Emergency Management Agency and made effective on January 22, 2020

of sea level rise for Delaware (approximately 3 ft), yielding a foreseeable flood height of 17 ft NAVD88 within the next 50 years. The design included 1 ft of freeboard to arrive at the design elevation of 18 ft NAVD88 as an additional hedge against uncertainty about future conditions.

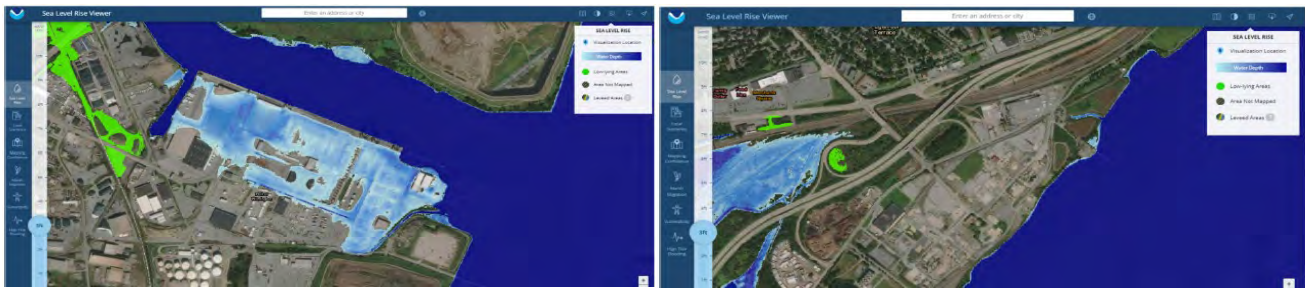


FIGURE 4-1 –SEA LEVEL RISE IMPACTS: EXISTING PORT (L) AND EDMOOR (R) ¹⁵

Operations

Poor and climactic events at a single port can disrupt the entire supply chain. In the event of severe floods and/or storms, such as Superstorm Sandy in NY/NJ, vessels need alternate places to call to prevent the stoppage of goods, and the Edgemoor Container Terminal will answer the call for resiliency in the U.S. port system by providing an alternate location with deep-draft berths.

5 SELECTION CONSIDERATIONS

5.1 Section E: Climate Change and Sustainability

Environmental and Emissions Mitigation Measures

The **Edgemoor Container Terminal – Container Yard Project** offers substantial environmental and emissions mitigation measures. Many are quantified in the BCA (refer to **Section 3.2**), and all are summarized in **Section 3.4**.

Electrification and Greenhouse Gas Emission Reduction

The **Edgemoor Container Terminal – Container Yard Project** reduces greenhouse gas emissions associated with importing and exporting containers with the following measures:

- Using electrically powered, zero-emissions port cranes (yard and berth)
- Installing electric plugs for refrigerated containers
- Providing enabling infrastructure for future shore power
- Speeding cargo velocity and reducing on-terminal congestion
- Implementing the latest energy-saving technology, such as power regeneration

DSPC remains committed to closely aligning its goals and accomplishments with the stewardship of Delaware’s ecological resources and the wellbeing of neighboring communities, as evidenced by its additional mitigation commitments that include rehabilitating wetlands, improving the nearby Fox Point State Park, and restoring a fish passage on the Brandywine River. This project recognizes the synergy between environmental compliance, initiatives exceeding compliance, community engagement, effective cost management, and operations efficiencies at the Port.

Environmental Justice

The project reduces exposure to emissions along with traffic and congestion impacts on communities near the Port, including Historically Disadvantaged Communities that currently face high-traffic proximity and volume and associated health impacts as shown in the EPA EJScreen web tool.

¹⁵ 100-Year, High-Rate Curve. Source: Verdantas, 2023.

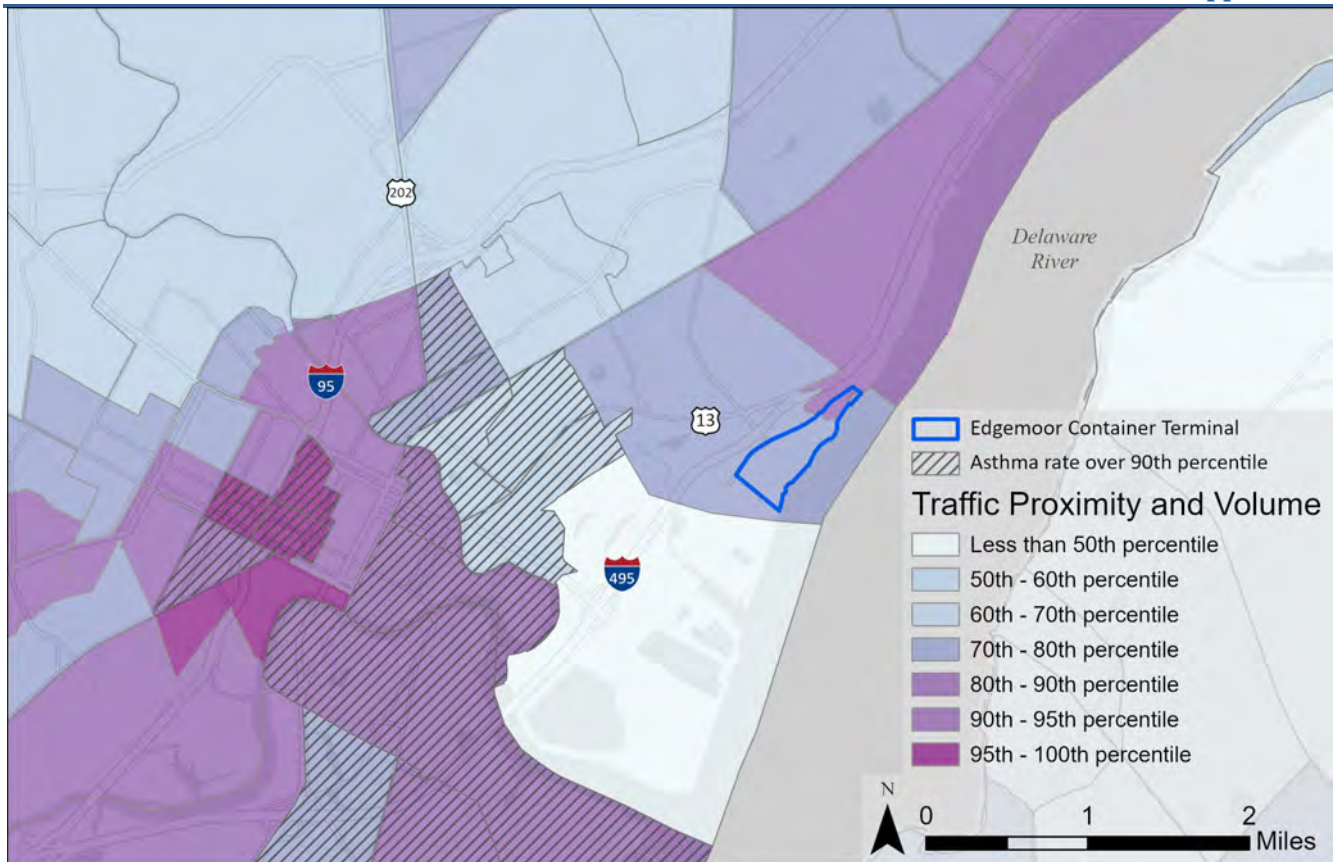


FIGURE 5-1 – TRAFFIC PROXIMITY, VOLUME, & ASTHMA RATES IN SURROUNDING COMMUNITIES ¹⁶

By reducing congestion in communities where traffic volume and congestion are currently disproportionately impacting quality of life, the project will equitably distribute benefits to communities most in need. The agencies spearheading the project are committed to providing equitable delivery of their programs and services. The project also strengthens environmental justice by directing benefits toward a disadvantaged workforce in communities that face high unemployment rates.

Marine Emissions Reductions

The project enables more efficient New Panamax container vessels, as the current Port facilities are not able to accept the larger ships. The ships are more efficient on a per container basis (the attached BCA spreadsheet and summary report in Appendix B include specifics), thereby reducing emissions.

Sustainable Development

The facility will be built in a sustainable, environmentally friendly manner, including a significant environmental mitigation commitment. DSPC prepared, and received approval for, a Compensatory Mitigation Plan (CMP) in accordance with 33 *Code of Federal Regulations* 332 and the posted USACE Philadelphia District Regulatory Program’s *Mitigation and Monitoring Guidelines*, as well as additional input from several compensatory mitigation discussions with USACE and the resource agencies. The CMP provides for the following: (1) the preservation of existing estuarine habitat near the project site; (2) the restoration of habitat that is currently inaccessible to anadromous fish; and (3) support of population and restoration studies to be performed by resource agencies in the watershed near the site.

¹⁶

Source: EPA EJ Screen, Accessed April 27, 2023 and adapted by Jacobs Engineering Group, Inc.

Supporting Green Energy

The majority of containerized cargo currently handled at the Port will shift to the new **Edgemoor Container Terminal**, freeing up capacity at the Port, which is a Foreign Trade Zone and has been a port of choice for the wind energy industry since 2001. The Port's experienced and skilled workforce, combined with ample berth and storage space, provide 24/7 safe handling and maximum flexibility for this delicate high-end cargo. In addition, the Port's modern cranes with maximum lift capacity of 100 tons for heavy lift are essential for efficient and timely loading and unloading. In April 2022, the Port received 78 wind turbine blades; each blade was over 48 meters long and weighed just under 13.5 tons. These blades were unloaded and transferred over a remarkable 2-day period. This speed and success led to another 71 blades being handled in May 2022. DSPC continues to field many inquiries regarding offshore cargo and expects continued green energy cargo to pass through the port.

The **Edgemoor Container Terminal – Container Yard Project** will accommodate almost all of the current Port's container volumes, freeing up valuable terminal capacity to support general and project cargo, such as new and green technologies that include offshore wind components.

DelDOT and the Department of Public Safety and Homeland Security facilitate prompt and efficient state truck permitting and police escort services for quick and cost-effective movement of this project cargo through the state and onward to its final destination.

State of Good Repair

Edgemoor Container Terminal's site is a prior Chemours plant that is currently vacant. This project will bring this existing, idle brownfield asset into a state of good repair and create environmental and economic benefits for the region. This project also improves the state of good repair of local, regional, and interstate roadways and highways by removing truck traffic from the congested roadway network.

5.2 Section F: Equity and Justice⁴⁰

Meaningful Community Engagement

DSPC has spearheaded significant and meaningful community engagement throughout the project planning process, starting with its Strategic Master Plan process in 2016 and continuing through acquisition of all permits and plans to continue engaging affected communities.

January 2016 Open House

DSPC held an Open House in January 2016 regarding the Port of Wilmington's Strategic Master Plan, which was developed to guide the Port in sustaining and expanding upon its role as a significant contributor to Delaware's economic vitality. The Open House, attended by more than 100 people, provided an update on how the Plan was being developed and progress to date; and solicited feedback in identifying issues, alternatives, and potentially significant impacts for consideration in future analyses. Information was provided on four areas of study: Operations & Capacity, Marketing & Economic Impacts, Environmental Concerns, and Expansion Opportunities. Public comments included the following concerns, which were taken into account in project development:

- **Expansion Opportunities:** Accommodation of deep draft vessels, Improve and better utilize existing Port, and Support for expansion beyond existing Port print, including access to the Delaware River
- **Local Employment Opportunities:** Need for high paying local jobs that don't require college education, Desire to maintain union representation, Suggestion for maritime technology program, and Suggestion for cost benefit analysis
- **Environmental Issues:** Concern about the restrictive DE Coastal Zone Act and how it may restrict expansion opportunities, Emphasis on including NEPA reviews
- **Funding:** Preference for evaluating Public/Private Partnerships, Stressed need for intergovernmental

coordination

- **Transportation:** Public transportation and linkages need to be factored in Strategic Plan

Stakeholder and Public Meetings, Legislative and Agency Public Hearings and Comment Periods

Multiple stakeholder and public meetings have been held to discuss concept plans for the proposed Edgemoor facility. Topics discussed included dredging, economics, noise, light and aesthetics, traffic, environmental conditions, and natural resource impacts. Various legislative and agency actions also included opportunities for public comment/input at meetings and hearings. Examples include:

- **Community Organizations**, including Joint meeting with Council of Civic Organizations of Brandywine Hundred (CCOBH) & Eastern Brandywine 100; Eastern Brandywine 100; Edgemoor Civic Association; and Brandywine Hundred Fire Company
- **Conservation organizations**, including Partnership for Delaware Estuary, Delaware Nature Society, Delaware Audubon, Delaware Chapter Sierra Club, and Delaware Riverkeeper
- **State and local officials** that represent the current Port, Edgemoor and surrounding areas
- **Open Meeting March 11, 2020, at Mount Pleasant Elementary School:** More than 200 people attended and met with subject matter experts. Specific public comments and the issues raised have been taken into account in project planning, and included changes to port operations, traffic flows, environmental mitigation, and ensuring that jobs will go to the local workforce and communities.
- **Funding of Mitigation in Support of Community:** On June 30, 2021, Governor Carney signed the FY 2022 Bond and Capital Improvements Act that included an appropriation supporting DSPC's mitigation efforts at Fox Point State Park as part of the Edgemoor Container Terminal Project.
- **New Castle County Board of Adjustment Public Hearing:** DSPC requested and held a public hearing on June 4, 2020, to discuss number of variances for development of the Edgemoor facility related to buffer yard, landscaping, setbacks, and light height requirements. The community participated in the hearing.
- **DNREC Public Hearing and Comment Period:** As part of DNREC's approval process for multiple permits, public notices, solicitations, and hearings were issued or held - notice on August 23, 2020; hearing on September 29, 2020 (with closed captioning available to attendees); and written public comment period through December 1, 2020 - to provide the public, neighbors, users, and the community an opportunity to learn about, provide feedback on, and offer comments on the project. Over 50 people attended the hearing, and more than 100 comments were received (many of which were positive). DNREC's approvals were issued on the bases of this community engagement. Many local organizations, business owners, non-profits, and community members expressing strong support for the project.
- **Delaware River Basin Commission ("DRBC") Hearing:** DRBC held a public hearing On November 10, 2021, to solicit public comments, and extended the written comment period to November 15, during which any member of the public was able to offer comments. 44 of the 46 comments received were in support of the project.
- **US Army Corps of Engineers (USACE):** Extensive outreach was conducted as part of the USACE permit process and in accordance with the NEPA, USACE Philadelphia District prepared an Environmental Assessment (EA) for the proposed Edgemoor Container Terminal that engaged 20 state and federal agencies, programs, and recognized tribes and nations through a December 20, 2018, letter describing the project, outlining potential issue areas, and seeking comments on the proposed project. Under Section 217(a), USACE also issued National Environmental Policy Act

scoping letters on December 17, 2018; solicited comments from the public in July through October 2020; went back to the public to solicit comments a second time in November through December 2021, and continued to update the public with an additional public notice in November 2022.

5.3 Section G: Workforce Development, Job Quality, and Wealth Creation

As part of the DSPC's state permitting process to develop the **Edgemoor Container Terminal**, it undertook a detailed Environmental Assessment ¹⁷ that includes an analysis of existing employment and the 2,260 new good-paying jobs forecasted to result from the Edgemoor Container Terminal. The following excerpt summarizes how the Edgemoor Container Terminal will support job creation:

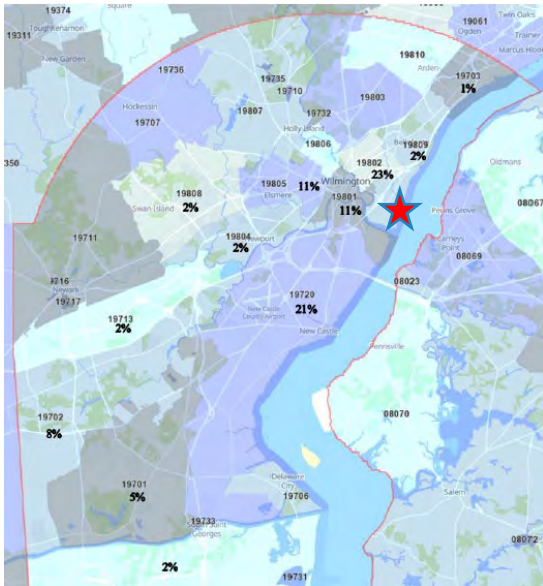


FIGURE 5-22– PORT’S EMPLOYEE DISTRIBUTION BY ZIP CODE AS OF JANUARY 2020

facility in Claymont permanently shuttered operations in 2013, which eliminated approximately 350 jobs. Importantly, the loss of these jobs in the auto and steel industry went beyond the quantitative loss in that these particular employers represented a unique source of stability and opportunity for advancement, particularly for those without a college degree.

The creation of jobs associated with the expansion of the Port of Wilmington at Edgemoor, though not categorized as part of the manufacturing employment sector, will provide opportunities to the local and regional labor pool that was impacted by the closing of these facilities.

*The **2,260 new jobs** forecasted to result from the containerized cargo expansion represent an opportunity for approximately 3% of the population of the City of Wilmington, 5% of the minority population in Wilmington, and 12% of the population living below the poverty level in Wilmington.*

New terminal operations jobs will be under the International Longshoreman Association (ILA) union, one of the most diverse unions, which pays good wages, offers good benefits, and has training programs.

The Port's employees live in the surrounding area. Figure 5-1 provides representative demographics of the Port employees of the current operation in the Port by zip code. These employees represent the

¹⁷ Diamond State Port Corporation (DSPC). 2020. *Diamond State Port Corporation Proposal*. <https://dnrec.alpha.delaware.gov/port-proposal/>.

current Port employees and the anticipated demographics of the Edgemoor Container Terminal staff for all zip codes with a minimum of 1% of the total employment.

This project will reduce economic disparities in Historically Disadvantaged Communities, Areas of Persistent Poverty, and federally designated Opportunity Zones.

Civil Rights & Title VI Compliance

DSPC is committed to civil rights and compliance with Title VI. DSPC is a capable of and experienced in compliance with civil rights obligations and nondiscrimination laws, including Title VI of the Civil Rights Act of 1964 and implementing regulations (49 CFR part 21), the Americans with Disabilities Act of 1990 (ADA), Section 504 of the Rehabilitation Act, and all other civil rights requirements and accompanying regulations. DSPC will develop a Title VI program plan and implement a Community Participation Plan.

6 PROJECT READINESS

With the FY 2023 PIDP Grant, DSPC can proceed with delivering the project and can do so in advance of U.S. Maritime Administration's (MARAD's) September 30, 2026, obligation date.

6.1 Technical Capacity, Schedule, and Risk

DSPC's Technical Experience and Capacity to Undertake Project

Established in 1923, the Port has managed major projects over these past 100 years. Some projects include constructing wharves, warehouses, and other Port infrastructure costing more than \$200 million in year-of-disbursement value (not adjusted for inflation). Adjusting for inflation, this amount is significantly higher in today's dollars.

DSPC is experienced with managing federal grant funds and the procurement processes that would accompany a PIDP award. DSPC has a track record of successfully completing significant infrastructure projects on time and within budget, while maintaining a high level of operational performance in the terminal, including a 2013 USDOT TIGER Grant for Port improvements.

All large projects have been managed by Port officials, in combination with external construction contractors. In the most recent, DSPC managed a project—partially funded by the federal government (DTMA91G140007) where DSPC contributed 65% matching funds—two of the berths were rehabilitated by external construction contractors. As further evidence of this experience and ability, DSPC engaged and managed a consultant team that successfully applied for and obtained federal, state, and local permits for this Edgemoor Container Terminal – Container Yard Project.

DSPC is experienced with managing federal grant funds and the procurement processes that would accompany a PIDP award. DSPC has a history of successfully completing significant infrastructure projects on time and within budget, while maintaining a prominent level of operational performance in the terminal, including a 2013 USDOT TIGER Grant for Port improvements.

Engineering, Design, and Cost Estimate

DSPC and its consultants have completed 30% engineering, planning, and cost estimating. Detailed design for this project is underway and includes issuing early works packages so construction on critical-path items, such as site work, can commence early. The designs used for the Project include a Basis of Design Report prepared by Verdantas in March 2023 that is specifically tailored to Edgemoor's conditions, intended uses, operational criteria, permit requirements, and staging and sequencing. DSPC is committed to efficiently working to complete the final design. Planning, design, construction management, permitting, and consulting costs are not included in the FY 2023 PIDP grant request and will be separately funded by DSPC. **Appendix A** includes a cost estimate.

Planning Efforts

This Project is the key aspect of DSPC’s master plan. It has full support from DelDOT and other state agencies. Upon award of a USDOT grant, the Edgemoor Container Terminal will be included in all relevant state transportation and freight plans; additional information is in **Section 6.2**.

Property and Right-of-way Acquisition

DSPC owns the Edgemoor site, and there is no further property, or right-of-way acquisition required.

Project Schedule

DSPC’s engineering consultant has developed a project schedule that is included in **Appendix C**. With appropriate funding, DSPC is confident that the project can be completed and all PIDP funding obligated and expended well before the September 30, 2026, and September 30, 2031, deadlines, respectively, as indicated in the presented in and **Appendix C**.

Risk Mitigation

Assessment of Project Risks and Mitigation Strategies

Table 6-1 identifies the project’s potential risks and associated mitigation strategies.

Table 6-1 – Risk Analysis

1	Description	Risk Mitigation Strategy
Low	Market or Demand Risk	A DSPC-funded market consultant has developed a confidential forecast showing there is strong demand, and through the 204(f) process, the USACE has developed a separate demand forecast closely mirroring this growth, but only if Edgemoor is built to achieve its full potential. The Edgemoor Container Terminal will accommodate existing base containerized cargo currently handled at the Port of Wilmington, plus future demand growth driven from Edgemoor’s efficiency and attractiveness. This frees up capacity at the existing Port to handle non-containerized cargo, including growing historical volumes and projected growth in existing cargoes and new opportunities, such as offshore wind blades and components.
Low	Non-federal Funding Match	The non-federal funding will be provided and secured by DSPC, a body corporate and politic established under Chapter 87, Title 29 of the <i>Delaware Code</i> within the Delaware Department of State, which is committed to funding the project as stated in the commitment letters (Appendix E).
Low	Development Timeline	All local, state, and Federal permits have been received. DSPC and its consultants have a high degree of confidence in timelines for design and construction. DSPC and can meet all FY 2023 PIDP Grant milestone and schedule requirements.
Low	Right-of-way, Land Acquisition, Permits, and Approvals	DSPC has acquired all land and does not require any right of ways. DSPC and its consultants have secured permits, as described in Section 4.2 .
Low	Qualified and Available Construction Contractors	The scope of construction is highly specialized, and there is a limited pool of qualified construction contractors. The construction industry is busy, in part due to the Bipartisan Infrastructure Law and other large regional projects, creating a risk that contractors will not bid on Edgemoor. However, DSPC and its tenants have undertaken many projects at the existing Port, have confidence that there are qualified and interested local contractors, and have started the process of engaging with contractors. The size and importance of this project will attract a larger pool, including several beyond the region. Further, the project is being bid in packages based on project scope and schedule (such as an early earthworks package and separate marine and building bid packages) to best align the project to contracting capabilities and schedule. DSPC is currently undertaking some of the early works and has held extensive discussions about the project with large construction contractors, both of which expressed a strong interest.

1	Description	Risk Mitigation Strategy
Low	Domestic Preference	The PIDP project scope does not include container-handling equipment or specialty items such as fenders or bollards. All construction material (such as steel, concrete, timber, soil, rock) and electrical equipment to serve the electrified container yard and gate can and will be sourced from Build America, Buy America-compliant sources. DSPC and its consultants have experience in similar project scope and are confident that a waiver will not be required.
Med	Material Supply	The Edgemoor Container Terminal development is a complex development program with many types of materials required. Current supply-chain issues are causing longer lead times, higher prices, and even the inability to obtain certain materials, such as electrical equipment and specialized steel. DSPC will accept this risk. Its consultants will monitor material items, lead times, and costs, and proactively identify and consider multiple alternatives and options in design (all Build America, Buy America-compliant), should issues arise. For example, DSPC may procure long-lead items such as electrical substations or switchgear directly and issue to the contractor, rather than waiting for the contractor to procure.
Med	Construction Cost Overrun	DSPC and its consultants have undertaken 30% design and construction cost estimates. The estimates (Appendix A) are based on similar and recent projects (including a recent similar yard electrification and densification at the existing Port), current market conditions, and the expected project timeline. Value engineering may be used in the event of cost overruns.

6.2 Environmental Risk

Information About the NEPA Status of the Project

Over the last few years, the DSPC pursued and secured the required permits and approvals from federal, regional, state, and local authorities having jurisdiction over this project. This extensive effort and investment resulted in the project being fully permitted and ready for construction.

More specifically (and as mentioned in Section 5.2), as part of the USACE permit process and in accordance with NEPA, USACE Philadelphia District prepared an EA for the proposed Edgemoor Container Terminal. Through the EA, USACE engaged 20 state and federal agencies, programs, and recognized tribes and nations through a December 20, 2018, letter describing the project, outlining potential issue areas, and seeking comments on the proposed project. The letter also identified the approach that would be taken through the EA to analyze the project, including an examination of alternatives that consider the project location, dredging depth of the proposed project, and storage of the dredged materials. This approach is based on two scenarios: (1) expansion of the existing Port and (2) expansion and development of a new marine terminal located along the Delaware River.

As part of its evaluation, USACE Philadelphia District issued a Public Notice¹⁸ for this project on July 24, 2020. USACE rendered a decision on Section 404/10 Permit, issued a Section 408 Decision Letter, and issued the 217(b) Letter Report in summer 2022, which stated: *“Having reviewed the information provided by the applicant and all interested parties and an assessment of the environmental impacts, I find that this permit action will not have a significant impact on the quality of the human environment. Therefore, an environmental impact statement will not be required.”*

Because the issuance of a PIDP project would be MARAD’s only federal action on the Edgemoor Container Terminal – Container Yard Project, DSPC has not yet asked MARAD for a NEPA review. However, DSPC is confident that MARAD will be able to use USACE efforts to complete the required NEPA process in an efficient manner obligation of funds.

¹⁸ U.S. Army Corps of Engineers (USACE) Philadelphia District. 2020. *Public Notice No. CENAP-OP-R-2019-278*. 01 September. <https://www.nap.usace.army.mil/Portals/39/docs/regulatory/publicnotices/Extension-Public-Notice-2019-278.pdf>.

Environmental Permits and Reviews

As described in our application and by way of further update, DSPC has received the required variances from New Castle County (10 variances), permits and approvals from DNREC for Delaware (*Resource Conservation and Recovery Act [RCRA] Corrective Action Permit*, *Subaqueous Lands Permit*, and *Federal Consistency Certification*), approval from the Delaware River and Basin Commission, and federal approvals from USACE, including under Section 408, Section 10 & 404 (33 *Code of Federal Regulations* 320-332), and Section 217(b).

DSPC has spent considerable time and resources to advance and obtain local, state, and Federal permits and approvals for this transformative, nationally significant, and much needed project.

State and Local Approvals***Legislative Approvals***

As body corporate and politic established under Chapter 87, Title 29 of the *Delaware Code* within the Delaware Department of State, DSPC is authorized to “exercise all of the power and the authority with respect to operation and development of the Port of Wilmington.” Therefore, no additional legislative authority is needed to construct the proposed project.

Delaware Department of Natural Resources and Environmental Control

The Delaware DNREC protects and manages Delaware’s natural resources, protects public health, provides outdoor recreational opportunities, and educates Delawareans about the environment. The DNREC Division of Climate, Coastal and Energy uses science, education, policy development, and incentives to address Delaware’s climate, energy, and coastal challenges. As described in the following subsections, DNREC has concluded that the permit and certifications it has issued are appropriately conditioned to ensure continued protection of public health and the environment.

Subaqueous Lands and Federal Consistency Certification

On September 20, 2021, DNREC issued two state authorizations for the development of the Edgemoor Container Terminal, including a subaqueous lands permit and a Federal Consistency Certification.¹⁹

DNREC held a public hearing September 29, 2020, to ensure efficiency and transparency and that the public was afforded the opportunity to comment on the proposed project. More than 50 members attended the virtual hearing, and DNREC acknowledged the high interest in the project by extending the public comment period through December 1, 2020. DNREC received nearly 200 comments.

The Subaqueous Lands Permit issued by the DNREC Division of Water authorizes DSPC to build a 112-ft-wide by 2,600-ft-long wharf, dredge the berth and access channel to a depth of 45 ft, and install 3,200 ft of bulkhead along the shoreline.

The second authorization, a Federal Consistency Certification required from the DNREC Division of Climate, Coastal and Energy, concurs that the activities associated with the Edgemoor Container Terminal – Container Yard Project comply with the enforceable policies of the DNREC Coastal Management Program.

Both DNREC authorizations require compensatory mitigation, including to offset the filling of some subaqueous lands belonging to Delaware as part of the construction of the Port, including the following: (1) constructing more than 1 acre of intertidal wetland habitat along the Delaware River, (2) funding an Environmental DNA Fisheries Monitoring Program for Delaware, and (3) creating new public access at Fox Point State Park to the natural resources of the Delaware River.

¹⁹ Diamond State Port Corporation (DSPC). 2020. *Diamond State Port Corporation Proposal*.

The DNREC Secretary's Order entailing approval of both applications concludes that DSPC has adequately demonstrated compliance with all requirements of the statutes and regulations, has submitted the requisite Compensatory Mitigation Plan required for the filling of 5.5 acres of subaqueous lands of Delaware related to the proposed construction associated with this project, and is continuing to work with DNREC to ensure that all commitments and ongoing compliance requirements are met.

Resource Conservation and Recovery Act

DNREC issued a final permit^{20,21} to DSPC to continue corrective actions at the site as required under RCRA. This approves the presumptive remedy for the remaining areas and the stormwater management design plan, which makes this site an exception from stormwater treatment and storage provisions due to the RCRA status. The remaining investigations in SWMU 2 are underway in accordance with a DNREC-approved Sampling and Analysis Plan. SWMU is not within the Grant Project Area.

Local, County, and Regional Permits and Approvals

The site is currently zoned as Heavy Industrial by New Castle County, and rezoning is not required.

DSPC has obtained local land use approvals for the basis of the project and 10 variances from New Castle County. New Castle County's Department of Land Use and Building Department will issue building permits.

The project is located within the Delaware River Basin and was submitted for consideration to the Delaware River Basin Commission (DRBC) in 2020 as Docket No. D2020-003-CP-1. DRBC, a multi-agency regional body, whose members include USACE, the State of Delaware, the State of New Jersey, the State of New York, and the Commonwealth of Pennsylvania, oversees the water quality and allocation of the basin. The DRBC commissioners evaluated the project impacts to the water quality of the Delaware River, including the dredging and the land development activities. The DRBC commissioners voted to approve the project on March 9, 2022.

State and Local Planning

DelDOT is a key stakeholder in the Edgemoor project. *Delaware Code* Title 29, Subchapter 87, states that "the Corporation shall be governed by a board of directors consisting of 15 members, all of whom shall be residents of this state. Eight of these directors shall be...The Secretary of Transportation." As such, DelDOT is fully supportive of and committed to this project and its partnership with DSPC to deliver the State's commitment.

The Edgemoor Container Terminal is fully consistent with DelDOT's 2019 Long Range Transportation Plan²² and subsequent addenda, which has a vision statement of "Innovation in Motion will guide DelDOT in developing a safe, reliable and efficient transportation system that will support a diverse economy, vibrant communities and viable transportation options for Delaware's citizens, visitors and customers."²³ The project supports this by enhancing and connecting multimodal systems (road, rail, and waterborne commerce); using new technologies to move cargo efficiently and in an environmentally friendly way; and progressing DelDOT's goals of Safety and Security, Economic Vitality, Connectivity, Quality of Life, System Preservation, System Management and Operations, Resiliency and Reliability, Environmental Stewardship, Travel and Tourism, and Customer Service and Communication.

²⁰ Delaware Department of Natural Resources and Environmental Control (DNREC). 2021. *Statement of Basis, Diamond State Port Corporation Edgemoor Site (Formerly Chemours), Edgemoor, Delaware*. Final. April 29. <https://www.epa.gov/system/files/documents/2021-09/port-of-wilmington-edgemoor-sb.pdf>.

²¹ U.S. Environmental Protection Agency (EPA). 2021. *Permit for Corrective Action and Post-Closure Care*. State Permit Number HW31B04. April 29. <https://www.epa.gov/system/files/documents/2021-09/port-of-wilmington-edgemoor-permit.pdf>.

²² Delaware Department of Transportation (DelDOT). 2019. *Innovation in Motion, The Delaware Long Range Transportation Plan*. May 3. <https://deldot.gov/Publications/reports/plan/pdfs/DelDOT-Long-Range-Transportation-Plan-2019-Innovation-in-Motion.pdf?cache=1682091383232>.

²³ Delaware Department of Transportation (DelDOT). 2021. *Innovation in Motion, The Delaware Long Range Transportation Plan: 2021 Annual Supplement*. <https://deldot.gov/Publications/reports/plan/index.shtml?dc=plan>.

Upon award of a USDOT grant, the Edgemoor Container Terminal will be included in all relevant state transportation plans and documents.

Information on Environmental Reviews, Approvals, and Permits by Other Agencies

U.S. Army Corps of Engineers

In 2020, DSPC submitted a permit application to USACE Philadelphia District under the Wilmington Harbor Edgemoor Expansion Project, also known as the Edgemoor Container Terminal Project. As described previously, the scope of dredging works includes the expansion for berthing areas, an access channel and turning basin adjacent to the Delaware River federal navigation channel. DSPC has prepared relevant applications for permits pursuant to Section 14 of the *Rivers and Harbors Act of 1899* (33 *United States Code* [USC] 408), Section 10 of the *Rivers and Harbors Act of 1899* (33 USC 403), and Section 404 of the *Clean Water Act* (33 USC 1344) and received favorable permit decisions in summer 2022. The application number is NAP-2019-00278-23.

Section 204(f) of the *Water Resources Development Act of 1986*, as amended by Section 1014(b) of the *Water Resources Reform and Development Act of 2014* (33 USC 2232(f)), constitutes the guidelines to assist non-federal interests in preparation and submission of a report recommending assumption of maintenance of improvements carried out by a non-federal interest to a federally authorized harbor or inland harbor. DSPC sought approval to modify extents of the federal navigation channel pursuant to Section 204(f). On March 31, 2023, USACE concluded the request for federal assumption of maintenance of the Wilmington Harbor Edgemoor Expansion Project meets the requirements of Section 204(f) and approved the request for federal assumption of maintenance following construction by DSPC. DSPC will commit to undertaking and funding the dredging and mitigation, and to supplying a portion of the funding relating to disposal of the dredged material. USACE will permit the modification of the project at DSPC's expense and would undertake maintenance dredging at USACE's expense. Because USACE does not spend federal dollars on the maintenance dredging until DSPC constructs the facility and operates it for 5 years, this project is not dependent on USACE investment.

Letters of Support

The **Edgemoor Container Terminal – Container Yard Project** has complete support from throughout the region and supply chain, as well as state and local leaders and other interested parties and groups as confirmed by the letters of support (**Appendix D**).

7 DOMESTIC PREFERENCE

All infrastructure included in the **Edgemoor Container Terminal – Container Yard Project**, which is the scope of this FY 2023 PIDP Grant Request, will be sourced from U.S. sources and manufactured domestically. DSPC will not require a waiver to Build America, Buy America provisions. ***For clarity, container-handling equipment, such as cranes, is not included in the grant project and will be acquired separately.*** This project does not include fenders, bollards, or other items that may be costly or difficult to acquire in accordance with domestic preference.

8 DETERMINATIONS

The **Edgemoor Container Terminal – Container Yard Project** meets the determinations listed in Table 8-1 as specified in the FY 2023 PIDP Grant Notice of Funding Opportunity.

Table 8-1 – Determinations Summary

Project Determination	Response
1. The project improves the safety, efficiency, or reliability of the movement of goods through a port or intermodal connection to the port.	This project recognizes the following benefits: Reduced operating costs due to more efficient layout, operations, and terminal resiliency and lowered maintenance on new electrified equipment. Vehicle Miles Traveled Avoided and from more efficient terminal access and on-terminal operations, efficient terminal layout and spacing, switching container handling equipment types, and use of technology such as appointment systems. Truck Driver Time Savings from a modern and efficient layout that yield reduced truck turn time, and modern and advanced gate reduces stopping and processing time, thereby reducing trucker time in the terminal. Emissions avoided through the electrified facility, such as enabling electric ship-to-shore cranes compared to current diesel cranes; reducing emissions on a per container basis by using larger ships; switching from diesel-powered reefer gensets to electric plugs; eliminating diesel powered container handling equipment; and upgrading to new, all Tier 4 modern on-terminal trucks. Modern, safe gate and container yard layout and operations that reduce accidents and property damage
2. The project is cost effective.	The project has a competitive BCR of 2.7 , as presented in Section 4.2 and Appendix B , and is expected to bring numerous quantified and non-quantified benefits to the state, region, and country.
3. The eligible applicant has the authority to carry out the project.	DSPC, the Applicant for and would-be Recipient of this PIDP Grant, is a body corporate and politic established under Chapter 87, Title 29 of the <i>Delaware Code</i> within the Delaware Department of State. Please see Appendix H for DSPC's Enabling Statute. DSPC has no legal restrictions that would hinder our ability to carry out the project.
4. The eligible applicant has sufficient funding available to meet the matching requirements.	The State is committed to delivering the Project and has provided a letter of commitment in Appendix E . The ongoing permitting and cost-sharing discussions with USACE further highlight the State's commitment.
5. The project will be completed without unreasonable delay.	The project can be delivered within the FY23 PIDP program requirements, including obligation of funds by September 30, 2026, and expending funds by September 20, 2031.
6. The project cannot be easily and efficiently completed without federal funding or financial assistance available to the project sponsor.	DSPC requires a PIDP Grant to complete its most important project, and one of Delaware's most critical infrastructure projects. Without a federal grant, the DSPC's investment in the marine infrastructure will be under-leveraged and under-utilized as it will only be able to afford to build a small and inefficient container yard. Only with Federal dollars will the Edgemoor Container Terminal achieve its full potential of cargo capacity, efficiency, and reliability and improve economic growth, racial equity, and port resiliency, while reducing emissions and enhancing safety. A grant would allow the full project to proceed, achieve the utmost benefits, and maximize return on investment.

DSPC has spent considerable time and resources to advance and obtain local, state, and Federal permits and approvals, advance design, and commence construction for this transformative, nationally significant, and much needed Edgemoor Container Terminal Project. An FY 2023 PIDP grant would enable and accelerate construction of the container yard and gate, providing benefits to the region and broader United States.