PIERCE COUNTY TERMINAL EFFICIENCY PROJECT

TACOMA, WASHINGTON

U.S. DEPARTMENT OF TRANSPORTATION / MARITIME ADMINISTRATION
FY 2024 PORT INFRASTRUCTURE DEVELOPMENT PROGRAM (PIDP)
GRANT APPLICATION

PROJECT NARRATIVE

Submitted by:
The Northwest Seaport Alliance (NWSA)

THE NORTHWEST
SEAPORT ALLIANCE
SEATTLE + TACOMA

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SUPPORTING DOCUMENTATION / ATTACHMENTS

Supporting documentation for this grant application have been submitted on www.grants.gov as attachments, separate from this Narrative, the SF-424 and SF-424C. The supporting attachments are as follows:

Attachment 1 – Project Narrative

Attachment 2 – Benefit-Cost Analysis (BCA) Report

Attachment 3 – Benefit-Cost Analysis model (xls)

Attachment 4 – Funding Commitment Letter

Attachment 5 – Letters of Support

Attachment 6 – MARAD Port Readiness Plan

Attachment 7 – Cost Estimates

The NWSA has also set up a website for the submitted grant files:
https://www.nwseaportalliance.com/2024-pidp-grant-application-pct



INTRODUCTORY INFORMATION

Name of lead applicant	The Northwest Seaport Alliance (NWSA)
Is the applicant applying as a lead applicant with any joint applicants?	No
Does the applicant or joint applicant own the property where the grant-funded improvements will occur?	Yes
Is the applicant seeking funding under the small project at a small port set-aside?	No
Project Name	Pierce County Terminal Efficiency Project
Project Description	The Project is a set of improvements to Pierce County Terminal at the Port of Tacoma that will make the cargo terminal more energy efficient, expand reefer capacity, and modernize the transfer zone to allow the terminal to operate more cost-effectively. The Project consists of three components: 1) Converting all lighting on the terminal to energy efficient LED lights; 2) Installing reefers on racks and power infrastructure to accommodate 198 additional refrigerated containers; and 3) Rebuilding the terminal's transfer zone.
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 (Latitude/Longitude)	47.250348, -122.374473
Is this project in an urban or rural area?	Urban
Project Zip Code	98421
Is the project located in a Historically Disadvantaged Community?	Yes
Has the same project been previously submitted for PIDP funding?	No
Is the applicant applying for other Federal discretionary grant programs (managed by DOT or a separate agency) in 2024 for the same work or related scopes of work?	No
Has the applicant previously received DOT funding for the same work or related scope of work?	No

Has the applicant previously received TIGER, BUILD, RAISE, FASTLANE, INFRA, USMHP, or PIDP funding?	Yes: FY20 PIDP: Terminal 5 Uplands Modernization and Rehabilitation Project ($10.7 M) FY22 PIDP: Terminal 5 Export, Expansion, and Emissions Reduction Project ($17 M) FY23 PIDP: Husky Terminal Expansion Part One ($54.2 M)
PIDP Grant Amount Requested	$11,647,000
Total Project Cost	$23,294,000
Total Federal Funding	$11,647,000
Total Non-Federal Funding	$11,647,000
Will RRIF or TIFIA funds be used as part of the project financing?	No
Does the applicant use LOGINK or a similar logistics platform provided or sponsored by the People's Republic of China or Chinese state-affiliated entities?	No

I. PROJECT DESCRIPTION

The Northwest Seaport Alliance (NWSA) is requesting $11,647,000, 50% of the project cost, in 2024 Port Infrastructure Development Program (PIDP) grant funding to help fund the Pierce County Terminal Efficiency Project (the Project) at the Port of Tacoma, Washington (the Port).

The Project is a set of improvements to Pierce County Terminal at the Port of Tacoma that will make the cargo terminal more energy efficient, expand reefer capacity, and modernize the transfer zone to allow the terminal to operate more cost-effectively. The Project will support the PIDP program's goals of improving the safety, efficiency, and reliability of the movement of goods into, out of, around, and within the Port. **The Project has a Benefit-Cost Ratio of 1.8.**

The Project consists of three components 1) Converting all lighting on the terminal to energy efficient LED lights; 2) Installing reefer racks and power infrastructure to accommodate 198 additional refrigerated containers; and 3) Rebuilding the terminal's transfer zone.

The installation of LED light bulbs will significantly reduce electrical consumption costs and improve lighting efficiency throughout the terminal. Expanding refrigerated capacity at the terminal will benefit U.S. agricultural exporters, who have weathered several difficult years of supply chain upheaval. The Project will increase the competitiveness of exports and reduce costs to U.S. farmers, ranchers, and food suppliers. The transfer zone rebuild will result in safe operation and added terminal capacity.

The Project will allow NWSA to better compete in international markets while meeting its goal of zero carbon emissions by 2050. The NWSA marine cargo operations currently support 58,400 jobs and more than $4 billion in labor income across the Washington state economy.

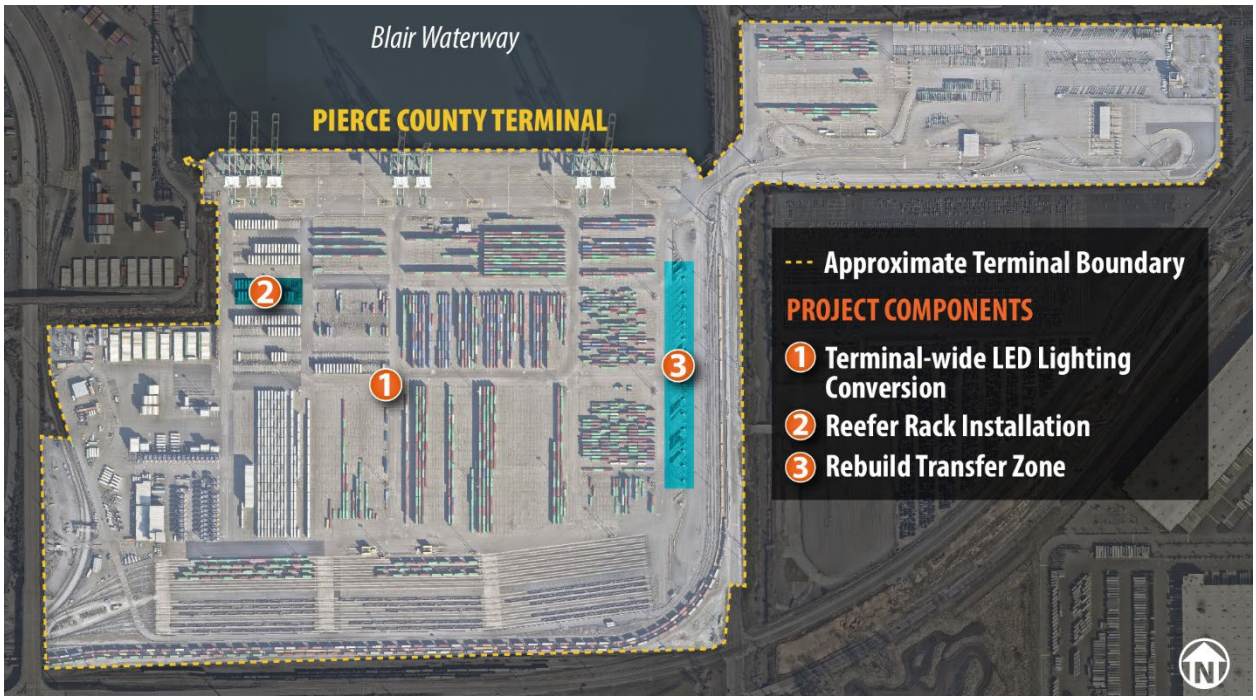


Figure 1: Project Components

A. Applicant Eligibility

The NWSA is a marine cargo operating partnership governed by the Port of Tacoma and the Port of Seattle as equal members, with each port acting through its elected commissioners. Both are port authorities under Washington State Law RCW 53.04.0101. The NWSA itself is a port development authority (PDA) under Washington State Law RCW Chapter 53.082 and as such is eligible to receive PIDP funds. Pierce County Terminal (PCT) is the name of the facility owned by the Port, Everport Terminal Services is the name of the private terminal operator, and Evergreen Shipping is the name of the ocean carrier that calls their vessels at PCT.

The NWSA oversees much of the maritime commerce in the region, including facilities for the export and import of containerized cargo, automobiles, breakbulk cargo, heavy-lift cargo, military cargo, and project cargoes, as well as intermodal rail terminal operations. The NWSA facilities include 33 ship berths that are served by five federal waterways. By operating jointly as the NWSA, the two ports form the seventh largest container gateway, the second largest refrigerated export gateway, and eighth largest export gateway by TEU (twenty-foot equivalent unit) in North America. This unique partnership strengthens the Puget Sound gateway and supports growth for the regional economy. The NWSA marine cargo operations support 58,400 jobs and more than $4 billion in labor income across the Washington state economy.[3]



Figure 2: The Port of Tacoma

[1] RCW 53.04.010
[2] RCW 53.08
[3] Economic Impact | Northwest Seaport - Port of Tacoma (nwseaportalliance.com)

B. Project Need

i. Facility History / Background

Pierce County Terminal (PCT) is an international container terminal licensed to the NWSA and leased to a private operator, Everport Terminal Services, Inc.

The terminal was expanded and reconstructed in 2005 and encompasses approximately 155 acres, including container marshalling areas, an intermodal rail yard, approximately 2,087 linear feet of wharf with seven Post-Panamax gantry cranes used for servicing container vessels. Operations at PCT include wheeled/grounded container import, grounded container export, and grounded empty cargo.

ii. Transportation Challenges & Solutions

NWSA's ability to continue serving its customers and keep up with supply chain demands hinges on its continued expansion and maintenance of PCT into an energy efficient terminal with the safest and most up to date infrastructure.

As part of their overall environmental sustainability and costs savings planning, NWSA plans to replace every interior and exterior light at PCT with 2879 LED bulbs. Converting the current lighting system to LED lights will significantly reduce electrical consumption costs and improve lighting efficiency throughout the terminal.

The Project will also expand the electrical infrastructure, add new plugs and reefer racks to accommodate 198 extra reefer plugs. Reefer containers are an integral part of Everport's and Evergreen's business, and PCT does not currently possess enough reefer plugs, which impacts the terminals, ocean carriers, beneficial cargo owners, and truckers throughout the NWSA gateway. Without the necessary number of reefer plugs, import and export reefers cannot be received, and additional empty reefers cannot be prepared. These additional plugs would be a beneficial addition to the PCT terminal and expanding the current electrical infrastructure is needed to begin the expansion process.

A full-depth rehabilitation of the pavement section at the PCT Transfer Zone is also required to continue PCT's operations efficiently. Due to the heavy use and age of the Transfer Zone paving, the pavement has degraded over time and has experienced an increase in rutting and pavement failure. Excessive rutting and/or pavement failure prevents container handling equipment from being able to safely operate in the Transfer Zone, resulting in a decrease in the overall terminal capacity. This extensive deterioration and increasing frequency of repairs has increased terminal maintenance costs and requires full depth replacement of the Transfer Zone pavement.

PCT is a critical link for moving agricultural commodities, primarily cherries, apples, and potatoes, and other miscellaneous frozen vegetables, fruits, meats, and dairy products. Any delay of goods movement at the terminal would disrupt the nation's supply chain, impacting rural agricultural communities in central and eastern Washington, as well as Idaho and Montana. The Project's increased reefer plug capacity at PCT for cooled containers will allow for expanded and more flexible receiving windows and greater reliability for exporters in our gateway. Therefore, the

Project will make the cargo terminal more energy efficient, expand reefer capacity, and modernize the transfer zone area to allow PCT to operate more cost-effectively.

Completion of the Project will allow PCT to continue operations uninterrupted. Terminal operations support thousands of jobs locally, most of which are unionized, family-wage jobs. PCT and the other international terminals of the gateway support tens of thousands of jobs in agriculture (as export facilities), transportation, logistics, machine repair, and retail.

C. Statement of Work / Project Components

i. Project Component 1: LED Lighting Conversion

Component 1 will replace every interior and exterior light at PCT with LED bulbs. This includes lighting in the Building, Yard, Dock, and Crane terminal areas, as shown in Figure 1. This will significantly reduce electrical consumption costs and improve lighting efficiency throughout the terminal. The installation will replace 3,287 current bulbs with 2,879 LED bulbs. This reduction in total bulbs is a result of needing fewer fixtures to achieve desired lighting levels. The lighting upgrade will dramatically improve lighting on the terminal, providing a safer environment for workers and terminal operations.

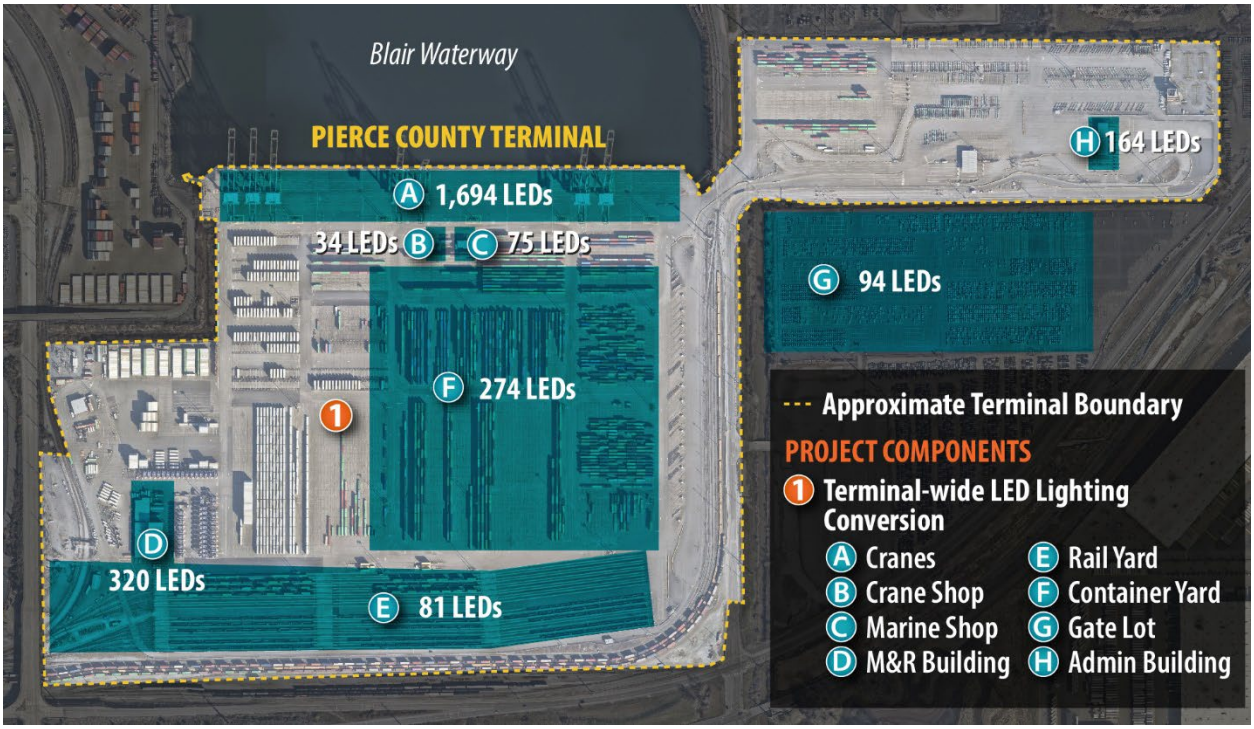


Figure 3: Lighting Conversion Locations on PCT

ii. Project Component 2: Reefer Expansion

Component 2 includes the installation of reefer plugs, reefer racks, and power infrastructure to accommodate 198 additional refrigerated containers at the terminal. PCT currently has 654 plug-ins (reefer plugs) for refrigerated cargo containers (reefers) that need to be kept at a cooled

temperature while staged on the port terminal. The Project will result in a total of 852 plug-ins. By adding reefer plugs will be on racks, including combined power outlets supplying multiple refrigerated containers, the requested funding will increase storage capacity at PCT, support exporters in the face of supply chain congestion, and reduce fossil fuel emissions at the terminal. The Project will improve safety for workers on the terminal because the new reefer racks will include stairs, replacing the need for use of mobile ladders. he use of ladders to access reefers poses safety concerns for workers on the terminal. Expanding cooled container infrastructure enhances reliability in the gateway to support agricultural exports. These exports are perishable and reefer plugs are critical to avoiding loss in the supply chain.

This component includes the installation of electrical and civil infrastructure to include: two transformers, two switchgear cabinets, two power factor correction, and 16 structural reefer racks to accommodate 198 new reefer plugs. Approximately 198 new reefers with racks will be placed in Section 22.

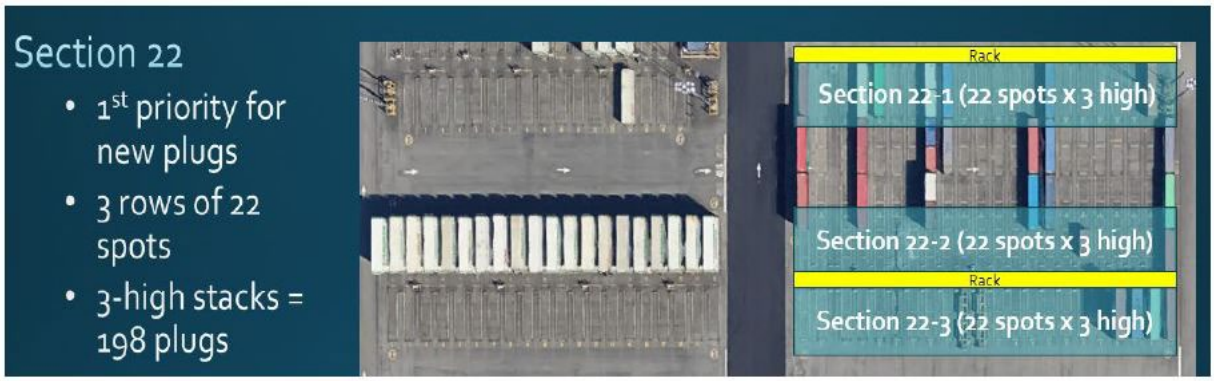


Figure 4: Reefer Project Component Details

i. Project Component 3: Transfer Zone Rebuild

Component 3 consists of a full-depth rehabilitation of the pavement section at the PCT Transfer Zone, an area that measures approximately two acres in size (90,000 square feet) and stormwater treatment improvements in accordance with state and local stormwater guidelines, regulations, and plans.

The transfer zone is a series of truck stalls in the marshalling yard where inbound and outbound trucks are loaded and unloaded by operators using container handling equipment (straddle carriers).

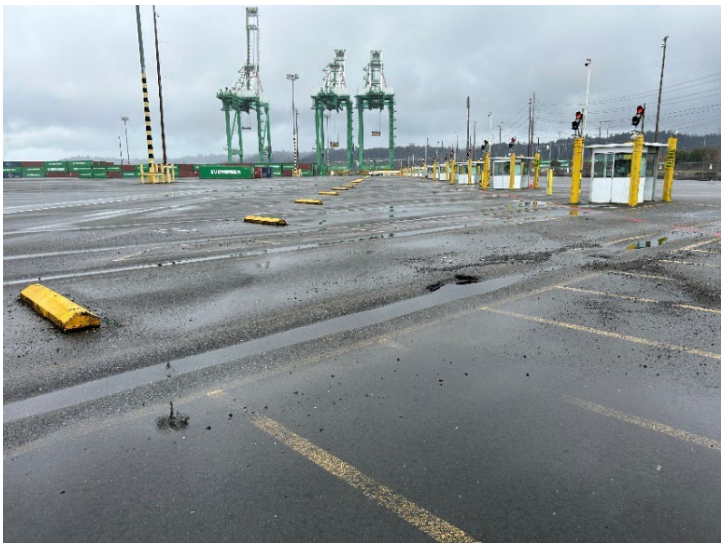


Figure 5: Transfer Zone Damage

There are approximately 30 total transfer zone truck stalls. The terminal completes an average of 1,000 transactions in the transfer zone per day, so each stall accommodates approximately 33 truck transactions each day. All truck-related container exchanges happen in the transfer zone, and the southern stalls generally see the highest use due to ease of access. Excessive rutting and/or pavement failure prevents container handling equipment from being safely operated in the transfer zone and in turn decreases the overall capacity of the terminal. Rehabilitation of the transfer zone will improve safety for terminal workers and truck drivers who perform the 1000 essential container exchanges on the terminal each day.

The Project includes installing stormwater treatment facilities to treat surface water runoff from the replaced pavement in the transfer zone as well as runoff from pavement within the stormwater treatment basin. To provide the required level of treatment and to properly convey the surface runoff to the treatment system, new stormwater conveyance piping will be required. The conveyance piping will be installed below grade with stormwater catch basins connecting segments of piping to the treatment system. Following installation of the full depth pavement sections, stormwater conveyance system, and treatment system, pavement striping (lane lines and transfer zone stall lines) will be applied to the finished surface of the pavement.

D. Strategic Seaport

The Port of Tacoma is a federally designated Strategic Seaport to coordinate efficient port operations during peacetime and national emergencies. The U.S. Department of Defense (DOD), in conjunction with the USDOT's Maritime Administration (MARAD), has designated 22 ports around the United States as "strategic seaports." A MARAD Port Readiness Plan and supporting documentation for the Port of Tacoma's strategic seaport designation is included as Attachment 6 of this grant application. The Port is a key support facility for Joint Base Lewis-McChord (JBLM) in Pierce County, Washington, and is the primary military outload Port for the entire region.

Strategic seaports are designated because of their ability to support major force and material deployments in times of war and national emergency, based on their proximity to deploying military units and their transportation links close to those units, and varying other capabilities the DOD has deemed important, including the importance of having strategic ports on all four of the nation's coasts (Atlantic, Gulf, Pacific, and Alaska).

Strategic seaports are designated as "strategic" because they are significant transportation hubs that are important to the readiness and cargo throughput capacity of the DOD. One of the major responsibilities of strategic seaports is to be prepared to make the port and its facilities available within short notice for the deployment of military forces and supplies in support of DOD operations. MARAD administers the Strategic Port Program and is charged with facilitating the movement of deploying military forces through strategic ports while minimizing commercial disruptions. Strategic seaports need to be able to make their facilities available to the military with as little as 48 hours' notice, and for long periods of time, if necessary.

II. PROJECT LOCATION

A. TACOMA, WASHINGTON

The Port of Tacoma, in the Puget Sound region of Washington State, is an urban coastal seaport on US DOT Marine Highway 5 and a major center for the import and export of containers, breakbulk, project/heavy-lift cargoes, automobiles and bulk, and connects to the second-largest concentration of distribution centers on the West Coast. The Port has five major container terminals where some of the world's largest container shipping lines call. These terminals are managed by the NWSA. Maritime shipping and industrial activities in Tacoma cover 2,400 acres concentrated in the Port of Tacoma Manufacturing Industrial Center (MIC), one of Washington's largest and oldest designated MICs. The area includes the natural deepwater port and industrial lands adjoining the Blair, Hylebos, Sitcum, and Foss Waterways, and the Puyallup River.

The Port is located at the intersection of three jurisdictions – the cities of Tacoma and Fife and Pierce County – and includes a significant portion of historical and current homelands of the Puyallup Tribe of Indians.

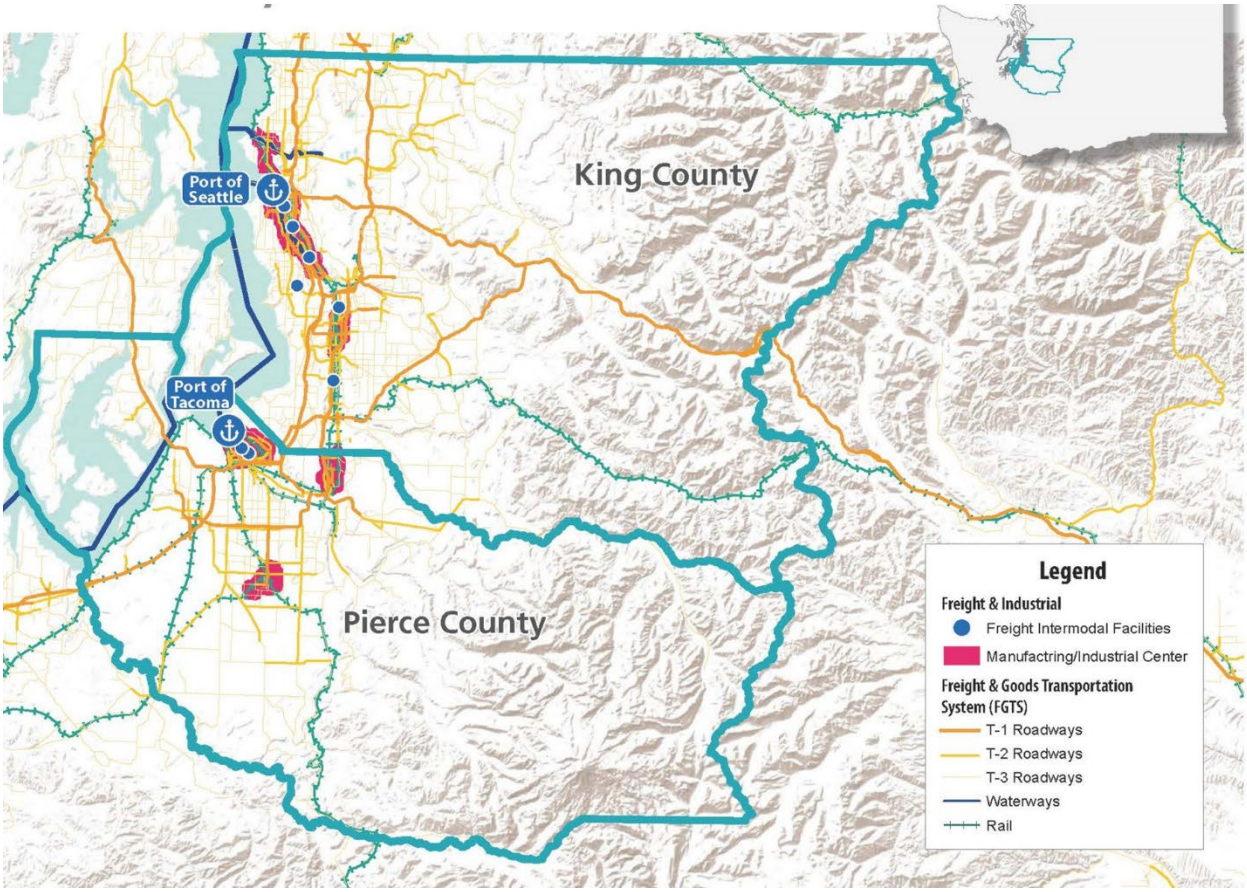


Figure 6: NWSA: Port of Tacoma in Washington State

B. Project Site

The Project is located at Pierce County Terminal, licensed to the NWSA, at the Port of Tacoma in Washington State (47.250348 /-122.374473), as shown in Figure 7; and in a Historically Disadvantaged Community (HDC) and Area of Persistent Poverty, and near Tribal and Opportunity Zones (see Figure 9).

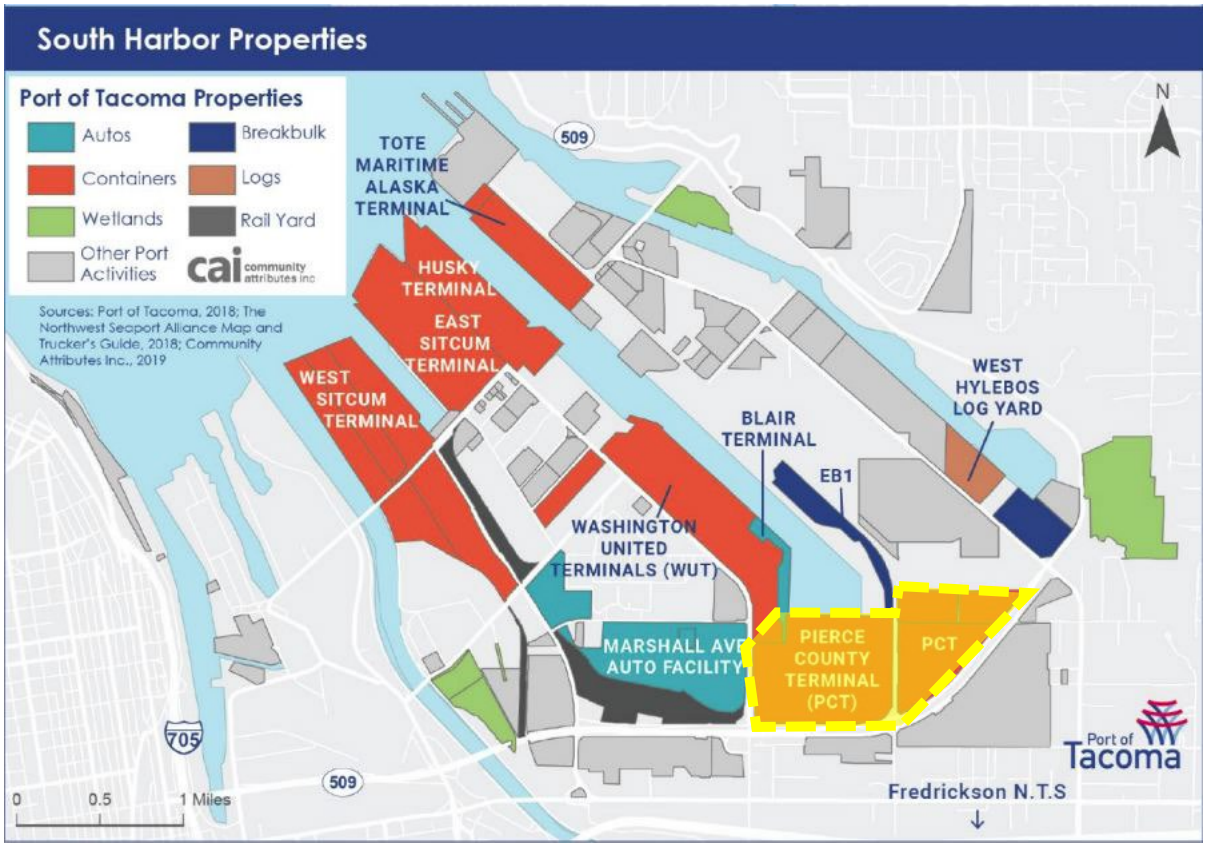


Figure 7: Project Site Location

i. Transportation Connections

Figure 8 shows the location of PCT within the Port of Tacoma and its connections to major freeway corridors. Landside connections to the Port are components of the National Freight Highway Network (NFHN), with roadway access from Interstate-5 and Interstate-90. The peninsula is served by Port of Tacoma Road, which is designated both as a National Highway Systems (NHS) Freight Intermodal Connector and as a Strategic Highway Network (STRAHNET) Power Projection Platform Route. Other roadways used for access and egress to the Project also have NHS Freight Intermodal Connector designation, and one is a Critical Urban Freight Corridor (Portland Ave.). Most of these roadways are designated heavy haul routes that serve permitted over-legal export loads. On these routes, any roadway improvements are built with thicker, longer-lasting pavement. The Port is also a key trade partner with Alaska via US DOT Marine Highway 5 and serves as a gateway to the arctic.

The NWSA's international container terminals enjoy excellent on-dock and near-dock rail service by Tacoma Rail, a local shortline. Tacoma Rail provides direct rail access to and from Class I railroads, including the Burlington Northern Santa Fe Railway and the Union Pacific Railroad.



Figure 8: Port of Tacoma Highway Connections

C. Census Designations & Historically Disadvantaged Communities

The Port of Tacoma and its NWSA licensed terminals are located in the Seattle, Washington Urban Area (Code 80389) as defined by the U.S. Census Bureau. The Urbanized Area's 2020 population was 3,544,011[4]. The Port is wholly located in, and surrounded by, a Historically Disadvantaged Community Zone, as discussed in Section V.B. and shown in Figure 9.

[4] https://www.census.gov/programs-surveys/geography/guidance/geo-areas/urban-rural.html

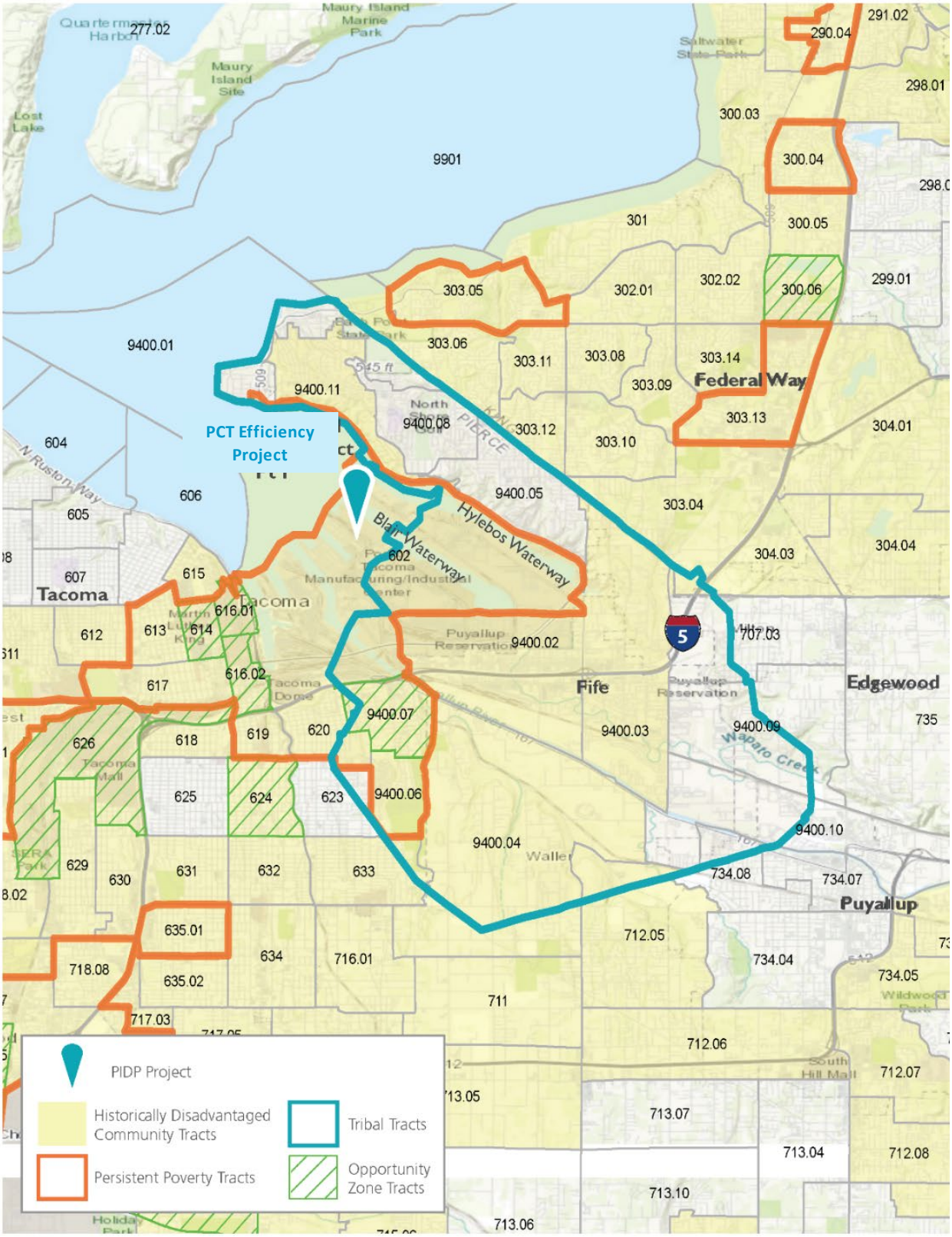


Figure 9: HDC, Persistent Poverty, Tribal and Opportunity Zones at and near Project Location

III. GRANT FUNDS, SOURCES, AND USES OF PROJECT FUNDS

A. Project Costs

The cost estimate for the Project is $23,294,000. Table 1 shows the expected project costs divided by Project Component. The estimate is based on appropriate engineering and unit cost data from similar NWSA projects, area suppliers, and area construction costs. A more detailed Cost Estimate is provided as Attachment 7.

B. PIDP Funding Request and Matching Funds

NWSA's request of $11,647,000 (50% of the total project cost) in PIDP grant funding will allow the Project to be completed in the most time- and cost-effective manner. $11,647,000 (50%) will be provided by NWSA to fund the remainder of the Project.

Table 1: Project Costs & Funding Sources

Funding Source	Component 1: LED Lighting Conversion	Component 2: Reefer Expansion	Component 3: Transfer Zone Rebuild	Total Funding
	Funding Amount			
PIDP Funds 50%	$1,666,000	$7,350,000	$2,630,500	**$11,647,000**
Non-Federal Funds (NWSA) 50%	$1,666,000	$7,350,000	$2,630,500	**$11,647,000**
TOTAL	**$3,333,000**	**$14,700,000**	**$5,261,000**	**$23,294,000**

C. Funding Sources

The NWSA has developed a comprehensive, multi-sourced funding program for the Project, with the requested PIDP grant funding an essential element of the NWSA's goal of meeting the needs of the freight and logistics industry and the region. The requested PIDP grant funding represents 50% of the total project costs.

D. Documentation of Funding Commitment

The Project's 50% local match will be funded through non-federal funding sources. The cost share will come from NWSA, which is fully engaged in the success of this project. Details about the Project's funding sources and their authorization can be found in the letter of commitment provided as Attachment 4 of this grant application.

IV. MERIT CRITERIA

A. Achieving Safety, Efficiency, or Reliability Improvements

The Project will support the FY24 PIDP program goals of improving the safety, efficiency, and reliability of the movement of goods into, out of, around, and within the port. The proposed terminal improvements will reduce significant worker and operational **safety** risks; increase terminal **efficiency**, capacity and velocity, reducing terminal operating costs; and improve the capacity for, **reliability** of, refrigerated agricultural exports without adding truck trips to more distant ports. The Project also supports the NWSA's and Everport Terminal Services, Inc. commitments to terminal electrification for energy efficiency and diesel emissions reduction.

i. Protects Workers from Safety Risks

The installation of 198 reefers on racks will improve terminal safety for mechanics at PCT. Currently, reefer containers are stacked two-high and mechanics must climb mobile ladders to plug in and unplug them. The use of ladders to access reefers poses safety concerns for workers on the terminal. Assuming that half of all reefer exports at PCT need to be accessed by ladder (for stacked containers), that means a mechanic needs to make use of a ladder at least 8,500 times per year. The enhanced lighting system will also improve terminal safety risks for workers and terminal operators, especially at night.

Fewer Accidents Due to Uneven Pavement in Transfer Zone

The Project's pavement grading and surface improvements are essential to maintaining safety standards and support the Project's implementation of taller container stacks. The pavement is currently in poor condition and requires continuous operating and maintenance expenditures. Uneven or distressed pavement is one of the primary causes of accidents involving container handling equipment and container stacks. New pavement will improve safety for yard equipment operators, truck drivers picking up or dropping off containers, and mechanics.

ii. Efficiency - Impacts on Port Performance

The Project represents one of the few opportunities across the entire U.S. West Coast to expand the nation's marine terminal capacity. PCT already is a vital asset for U.S. supply chains. Over half of NWSA's import cargo is bound for destinations outside the Pacific Northwest and exports come from all 50 states. The Project will help avoid congestion associated with cargo surges and result in efficiency gains that benefit the entire U.S. economy. These capacity, efficiencies, and cost savings are essential if the U.S. is to maintain a top-tier trade gateway in the Pacific Northwest.

The increased reefer plug capacity at PCT for cooled containers will allow for expanded and more flexible receiving windows during operations and greater reliability for exporters in our gateway. This can also lead to increased long-term business opportunities for exporters, improved efficiency for truckers, and potentially lower transportation costs for both parties. The added capacity will allow the terminal to handle more export reefers during peak periods, reducing waiting times for customers, and improving overall service levels.

iii. Strengthens the Supply Chain

The Project provides support for exporters by increasing the number of reefer plugs available at PCT, which will provide more options for exporters to manage logistical challenges related to supply-chain congestion. Increased on-terminal storage capacity will support the staging of loaded export containers in advance of vessel arrivals, which will help manage variable receiving windows at the terminals. The number of empty outbound containers handled at NWSA terminals jumped to 32% in 2022, while exports of loaded containers decreased in 2022 to 561,244 TEUs and increased to 588,744 TEUs in 2023, a number below 2004 and 2019 levels. Full exports began to show recovery in late 2023. As of May 2024, the NWSA is at seven months of full export growth due to voyage consistency and increased vessel calls. Ultimately, more reefer plugs will mean more export containers to be loaded onto ships and result in fewer missed export opportunities.

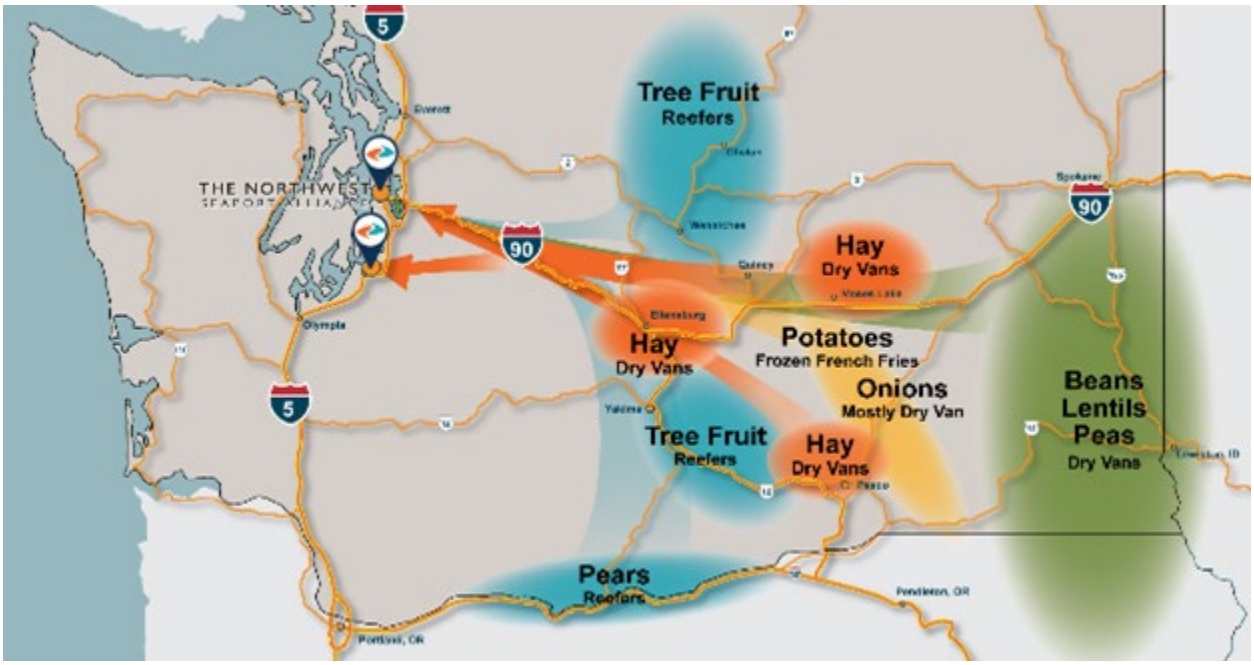


Figure 10: NWSA Exporters

iv. Increases Cargo Throughput

The addition of 198 reefer plugs will increase PCT's storage capacity for exports, thereby increasing the trade gateway's overall capacity to handle refrigerated cargo. The NWSA is the nation's number two gateway for containerized reefer exports and fourth in the U.S. for all containerized reefer cargo[5], and adding reefer plugs to PCT will help us retain current ocean carriers and attract and secure future ship services. PCT routinely operates beyond its current reefer plug capacity, meaning the Project will reduce negative impacts on overall terminal performance while improving gateway service.

[5] https://www.nwseaportalliance.com/service-providers/shipper-resources/americas-2-gateway-refrigerated-exports

v. Improves Reliability of Cargo Operations

Expanded and More Reliable Service for Customers

The Project will expand reefer capacity, allowing for expanded receiving windows at the terminal, which decreases the likelihood that export loads cannot make their receiving windows due to traffic or other unforeseen circumstances. The added capacity will also allow the terminal to handle more export reefers during peak periods, reducing waiting times for customers and improving overall service levels, providing both more certainty and lower costs to U.S. agricultural exporters. These exports are perishable and reefer plugs are critical to avoiding loss in the supply chain.

Due to limited reefer capacity, refrigerated agricultural exports are currently diverted to other ports, increasing uncertainty due to the longer trips. Projected growth in refrigerated U.S. agricultural exports for current exporters from Washington, Idaho, the Dakotas and elsewhere is likely to increase these diversions, adding costs to U.S. exports and reducing their global competitiveness.

The Project will result in lower costs and other efficiencies to shippers and ocean carriers and will help reclaim cargo market share that has been lost to the Canadian ports of Vancouver and Prince Rupert. By making PCT a more reliable option for exporters, the Project will allow NWSA to increase its export capacity and bringing associated transportation sector jobs back to the U.S.

B. Supporting Economic Vitality at the Regional or National Level

The Project supports the long-term competitiveness of the NWSA. Because of its higher value, refrigerated cargo is a sought-after business opportunity. Offering this increased capacity to ocean carriers will encourage them to make increased use of the terminal, including potentially larger vessels and more vessel calls. By helping retain and grow ocean carrier activity at PCT, the Project will help keep ship calls and the jobs they support in the U.S., including those of many who live and work in the region. The Project has the following benefits, as calculated in the Benefit-Cost Analysis summarized in the following section.

- **Savings in handling costs.** Additional reefer plugs at the Terminal will reduce labor needed for rehandling.
- **Reduction in truck wait time.** Increasing reefer capacity will reduce truck wait time at the Terminal. Currently, when the terminal is at reefer capacity, trucks carrying refrigerated container wait anywhere from 8-16 hours until a plug becomes available. As a result, the added capacity will remove the wait for the incremental volume.
- **Increased terminal safety.** The new reefer racks will improve safety for the terminal's mechanics by replacing ladders with stairs and catwalks to access reefers more efficiently for maintenance, power, and general access.
- **Savings in terminal maintenance costs.** Rebuilding the deteriorating transfer zone area will result in lower maintenance demand and costs.
- **Reduction in ladder accidents.** The installation of reefer racks will improve terminal safety for mechanics at PCT, since currently reefer containers are stacked two-high, and mechanics must climb mobile ladders to plug and unplug them.

- **Energy consumption cost savings.** Converting the lighting system at PCT to energy efficient LED lights will reduce energy usage at the Terminal.
- **Reduction in emissions.** Increased reefer capacity will provide savings in truck wait time, reducing truck emissions at the Terminal.

Benefits not quantified in this analysis are related to the improved safety outcomes due to converting all lighting systems at PCT to LED lights. The proposed energy efficient LED lighting system will significantly improve visibility at the Terminal, reducing the risk of accidents at night. However, no metrics were available to quantify this benefit.

i. Benefit-Cost Analysis Summary

The following With- and Without-Project Scenario assumptions were considered to determine the Project's cost effectiveness:

- **With-Project Scenario:** PCT will increase reefer capacity and no longer require the need to rent genpacks (generators with reefer plugs), providing savings in operating costs. The addition of reefer racks will provide labor cost savings. Increasing reefer capacity will reduce truck wait time at the Terminal, therefore reducing on-terminal truck emissions and operating costs. By rebuilding the deteriorating transfer zone, NWSA will not have to maintain it as frequently, providing savings in maintenance costs. Improving the current lighting system with LED lights will significantly reduce electrical consumption costs and enhance lighting efficiency throughout the Terminal, creating a safer environment for terminal operations at night.
- **Without-Project Scenario:** PCT will continue to rent genpacks to accommodate the excess reefer volumes at the Terminal. When reefer capacity is met and reefer plugs are unavailable, trucks have to wait for 12 hours on average until the Terminal has availability to accept the loaded reefers, causing trucks to be delayed for the next load. The lack of reefer racks and capacity will continue to require additional labor for the rehandling of reefer containers. On-terminal truck emissions will continue to increase due to the truck wait time at PCT. The Terminal's Transfer Zone will require maintenance services more and more frequently and at higher costs if left in its current state. Terminal safety will continue to raise employee concerns if PCT's lighting system is not improved, increasing the risk of on-terminal accidents at night.

The Benefit-Cost Analysis (BCA) reflects the US Department of Transportation's (USDOT) standard guidance[6] regarding forecast periods and discount rates. As such, all estimates were calculated over a 20-year period, beginning in 2026 following completion of the Project in 2025. A discount rate of 3.1% was used throughout the analysis (with a discount rate of 2% for CO_2 emission benefits) as suggested in USDOT BCA guidelines for 2024[6]. **The Pierce County Terminal Efficiency Project has an overall Benefit-to-Cost Ratio of 1.8.** The results of the BCA are summarized in Table 2.

[6] Benefit Cost Analysis Guidance 2024 Update.pdf (transportation.gov)

Table 2: Summary of Benefits (PV Discounted @ 3.1% in 2022 US$, in Millions)

Category	Present Value (2022 US$)
Economic Competitiveness	$33.13
Safety	$2.93
Environmental Sustainability	$4.55
Operating & Maintenance Costs	($1.99)
Residual Value	$0.00
Total Benefits	**$38.62**
Project Costs	$21.25
Net Present Value	$17.37
Benefit to Cost Ratio	**1.8**

The Pierce County Terminal Efficiency Project is composed of three components, each generating its own stream of benefits. Table 3 provides the results for each individual project component.

Table 3: Project Component Benefits (PV Discounted @ 3.1% in 2022 US$, in Millions)

Category	LED Lights	Reefers	Transfer Zone
Economic Competitiveness	$2.68	$27.36	$3.09
Safety	$0.00	$2.93	$0.00
Environmental Sustainability	$3.06	$1.49	$0.00
Operating & Maintenance Costs	($1.19)	$0.00	($0.80)
Residual Value	$0.00	$0.00	$0.00
Total Benefits	**$4.56**	**$31.78**	**$2.29**
Project Costs	$3.04	$13.41	$4.80
Net Present Value	$1.52	$18.36	($2.51)
Benefit to Cost Ratio	**1.5**	**2.4**	**0.5**

C. Leveraging Federal Funding to Attract Non-Federal Sources of Investment

Currently, no federal funds have been provided for the Project. The $11,647,000 requested PIDP grant funding represents 50% of the Project's total cost of $23,294,000. The 50% local match of $11,647,000 will come from the NWSA. Details about the Project's funding sources, and their authorization, can be found in Attachment 4, Funding Commitment Letter.

Leveraging the requested federal funding with a local match will help fund construction jobs and other opportunities, allowing the NWSA to improve its status as one of the nation's premier cargo ports. The Project reinforces the NWSA's commitment to provide an environment where private organizations can remain competitive, resulting in job creation and further economic development in the region.

D. Port Resilience

i. Reduced Natural and Climate-Related Hazard Risk

The Project provides resilience due to careful design that will allow the terminal to better withstand natural and climate related disruptions, including upland flooding from climate change-related storm surge and upland flooding and seismic events and associated liquefaction.

The Final Design will be based on established sea level rise standards for the Project based on projections from the University of Washington Climate Impacts Group[7] and national projections from NOAA.

ii. Supports the Export Supply Chain

The Project will expand the terminal capacity for refrigerated agricultural exports. As detailed above, this additional capacity will reduce costs and improve reliability for refrigerated U.S. agricultural exports for exporters from Washington, Idaho, the Dakotas and elsewhere. The Project will also provide an alternate platform for West Coast refrigerated exports in the event of weather, energy, labor, or commercial disruptions in that fragile supply chain. U.S. and Canadian ports have all experienced shutdowns or slowdowns due to extreme weather events, energy shortages, labor actions, or pricing disagreements.[8]

V. SELECTION CONSIDERATIONS

A. Climate Change, Sustainability and Environmental Justice

Section IV.D., immediately above, outlines the NWSA's Natural and Climate-Related Hazard Risk Reduction efforts. In addition, the NWSA, its terminal operators, the Canadian terminals in Vancouver, B.C., and the NWSA private and public sector and community partners have been working together to address climate change by reducing air emissions from, and ensure the sustainability of, maritime operations since 2008. Table 4 outlines these efforts:

Table 4: NWSA Sustainability Efforts

NWSA Sustainability Efforts		
Planning Element	**Description**	**Timelines**
Puget Sound Maritime Air Emissions Inventory[9]	Prepared by the Puget Sound Maritime Air Forum, a voluntary association of private and public maritime organizations, ports, air agencies, environmental and public health advocacy groups and other parties with operational or regulatory responsibilities related to the maritime industry.	Baseline inventory 2005, updated in 2011 and 2016. NWSA is currently leading the 2021 update.

[7] Miller et al 2018 - Projected Sea Level Rise in Washington State – A 2018 Assessment (uw.edu)
[8] https://www.feedstuffs.com/news/west-coast-port-debacle-strands-us-ag-exports
[9] 2016 Puget Sound Maritime Air Emissions Inventory – Puget Sound Maritime Air Forum

NWSA Sustainability Efforts		
Northwest Ports Clean Air Strategy (NWPCAS)[10]	Collaborative effort between the NWSA, the Port of Tacoma, the Port of Seattle, and the Vancouver BC Fraser Port Authority to reduce air pollutant and GHG emissions from seaport related activities in the Puget Sound – Georgia Basin Airshed, with the vision of phasing out emissions from seaport related activities by 2050.	Established 2008, updated in 2013 and 2020
NWSA NWPCAS Implementation Plan[11]	Five-year implementation plan to guide the first years of implementation of the 2020 NWPCAS vision to phase out emissions. Includes collaboration with terminal operators and partners to test and implement zero emissions trucks and cargo handling equipment as well as shore power.	2021 – 2025 timeframe

i. Reduces Greenhouse Gases

The Project will expand the terminal's refrigerated export capacity with additional reefer plugs. As detailed in the Benefit-Cost Analysis, the additional reefer capacity from the Project will reduce truck wait times at the terminal, reducing greenhouse gas emissions --- CO_2, NO_X, $PM_{2.5}$, and SO_x. Applying USDOT emission costs to the avoided increase in emissions determined that the Project will save $1.49 million in truck emissions due to reduced truck wait time over the 20-year analysis period.

LED lighting systems are more environmentally friendly than the current lighting and the lighting conversion component will provide savings in greenhouse gas emissions at PCT. The Project will save $3.06 million in energy emissions over the 20-year analysis period by converting all lighting at PCT to energy efficient LED lights.

ii. Reduces Energy Consumption

Converting all the lighting on the terminal to energy efficient LED lights will reduce the demand for energy consumption, as well as the energy usage at PCT. LED lighting provides energy cost savings, demand savings, and environmental emission savings. The BCA determined that the Project will provide $2.68 million in benefits over the 20-year analysis period with the enhanced LED lighting system. By converting all lighting on the terminal to energy efficient LED lights, the proposed lighting will require reduce energy consumption by 77% and save nearly 95 million kWh in lighting system energy usage over the 20-year analysis period.

[10] 2020_NWPCAS_Strategy
[11] 2021_NWSA_NWPCAS_Implementation_Plan

iii. Environmental Benefits to the Community

The reduction in diesel emissions associated with the Project will benefit port workers, truck drivers serving the facilities, and surrounding communities. In the Tacoma area, diesel exhaust presents the greatest public health risk of all toxic air pollutants. The project location is in close proximity to Downtown, East Side, Hilltop, and Northeast Tacoma, as well as the City of Fife. Many of these areas are disproportionately impacted by air pollution due to their proximity to the Port of Tacoma Manufacturing Industrial Center and the Interstate-5 corridor. Figure 11, drawn from the EPA's EJScreen[12] mapping tool, shows that the terminal and the surrounding areas are in the 90-95th percentile, the second highest range for diesel emissions (in orange).

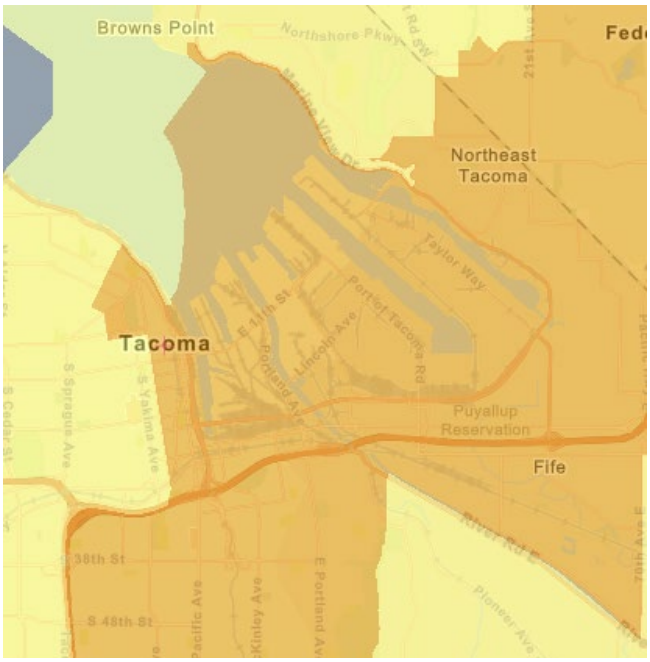


Figure 11: 0-95 % EJScreen Score for Diesel Emissions

The Project is expected to decrease truck emissions over the Project lifetime, benefiting terminal workers, truck drivers and the surrounding neighborhood zip codes. Many of these zip codes are listed as HDC, Persistent Poverty, and Opportunity zones, and most fall into more than one of these categories. Figure 9 highlights the areas to which these categories apply.

B. Equity and Justice40[13]

iv. Equity Focus

The Project is located in a Historically Disadvantaged Community (HDC) census tract and is surrounded by census tracts that qualify as HDC, Areas of Persistent Poverty and Tribal tracts, as well as designated Opportunity Zone tracts. Section V.C.ii., outlines the NWSA/Port's efforts to draw and train youth from these communities into the trades, so that they are qualified for construction jobs related to the Project, new permanent on-terminal union jobs supported by the Project, and future opportunities in the maritime trades. Figure 9 shown earlier illustrates the location of the Project in relation to the census tracts listed above. In addition, the Project's focus on emissions reduction will benefit the surrounding neighborhoods, as outlined in Section V.A.iii.

[12] EJScreen (epa.gov)

[13] The NWSA and its parent, the Port of Tacoma, have not been the subject of any compliance reviews, external lawsuits, investigations, or complaints alleging discrimination of any kind in the last 5 years.

v. Public Engagement

The NWSA has a robust community engagement plan that is focused on addressing the air emissions impacts of its terminals, including PCT. Working closely with the Port of Tacoma (and the City of Tacoma), NWSA continues to strengthen its efforts to engage and partner with near-port residents and communities to ensure that its clean air and climate actions and investments incorporate community experience, perspectives, priorities, and ideas. The NWSA engaged closely[14] with these communities, community-based organizations, and environmental NGOs, among other stakeholders in the development of the 2020 update to the NWPCAS and subsequent implementation plans through workshops, public webinars, and listening sessions. In addition, the NWSA has committed to three specific actions for ongoing engagement, which have been implemented or will be in the very near future:

1. A quarterly newsletter to keep community members informed on the actions and accomplishments of our clean air and climate programs.
2. Targeted frameworks for ongoing community engagement in both Tacoma and Seattle.
3. A web-based resource guide for community members, providing access and detailed information on NWSA's clean air and climate programs and engagement opportunities.

C. Workforce Development, Job Quality, and Wealth Creation

i. Project Construction

In addition to complying with all requirements laid out in USDOT's current guidance document for projects receiving federal funds, the NWSA will follow Washington State guidance for projects over $1 million.

ii. Unions and Labor Standards

The Port and the NWSA have supported quality union jobs enabling wealth creation for many years. In addition to labor operating at PCT, the Port's and NWSA's maintenance workforce supporting NWSA facilities in the Tacoma harbor, including PCT, are unionized. All on-terminal labor is unionized, and it is expected that the Project will create new permanent union jobs on the terminal due to previous, the Project's, and future related improvements. These well-paying union jobs include Union Mechanics earning an average $113,000 per year and Union Longshoremen earning an average of $172,400 per year. The NWSA also intends to include a contract clause that would ensure that contractors do not prohibit unionization.

Fifteen percent of labor will be provided through apprenticeships, as required by NWSA and the State of Washington for project elements estimated to cost over $1 million. For each project that has apprentice requirements, NWSA contract documents require that the contractor submit a "Statement of Apprentice and Journeyman Participation," on forms provided by the NWSA, with every request for project payment. The Contractor is then required to submit consolidated and cumulative data collected by both the Contractor and all subcontractors.

[14] 20190916-NWPCAS DD1-Summary Notes, 20200707-NWPCAS DD2-Summary Notes.pdf, 20201223-NWPCAS-Engagement Summary Round 3.pdf

iii. Workforce Development Programs

> "The Port's workforce development strategies were developed to create more pathways for local youth and young adults to get hands-on experience and build bridges to opportunities for meaningful, well-paying jobs in maritime and skilled trades." -- **Don Meyer, Port of Tacoma Commission President**

The creation of quality, living wage jobs that enable wealth creation and workforce development efforts are key elements of the Port of Tacoma's mission as economic development agency for Pierce County. The Port of Tacoma's 2021-2026 Tacoma Strategic Plan[15] further grounds this mission in ensuring that there is equitable access to these quality jobs by stating: "The Port supports the principles of diversity, equity, and inclusion throughout our organization and community." The NWSA adheres to, and fully supports, the Port of Tacoma's visions and goals. That means that every Port and NWSA project, including the Project, is designed to support the Port's/NWSA's mission. Current efforts include:

- **2022 Workforce Development Strategic Plan**[16], with focus on the trades and the workforce needs of the Port/NWSA and key customers. The plan is designed to facilitate connections between organizations, encourage the development of new programs, provide technical or financial assistance to organizations, and will scope outreach around customer feedback regarding the needs of their workforce. Elements include:
  - Apprentice utilization requirements
  - Internships/Job training programs
  - Community engagement activities
- **Maritime 253**[17] will be a regional Career and Technical Education Center (CTE) serving high school students from multiple school districts throughout Pierce County.

iv. Inclusive Hiring Practices and Use of DBE, MBE, WBE firms

The NWSA encourages participation by firms certified[18] by Washington State's Office of Minority and Women's Business Enterprises (MWBE) in all contracts. Participation may be either on a direct basis by the contractor or as a subcontractor. When required by federal statutes, regulations, grants, or contract terms referenced in the contract documents, preference will be included in the evaluation of bids, minimum level of 15% MWBE participation shall be required as a condition for receiving an award, and Bids will be rejected or considered non-responsive on that basis. Any affirmative action requirements set forth in federal regulations or statutes included or referenced in the contract documents will apply. The port also encourages participation by Veteran-owned businesses, using Washington's Department of Veterans Affairs' database.[19] The NWSA is exploring opportunities for the Project to closely monitor contractor compliance with this policy such as tracking actual subcontractor payments during the

[15] 2021 - 2026 Strategic Plan | Port of Tacoma
[16] Workforce Development | Port of Tacoma
[17] Maritime | 253 - Tacoma Public Schools (tacomaschools.org)
[18] Directory of Certified Businesses | Office of Minority and Women's Business Enterprises (wa.gov)
[19] Search for Veteran Owned Businesses | WDVA (wa.gov)

construction period. The NWSA also intends to include a contract clause that would ensure that contractors do not prohibit unionization.

VI. PROJECT READINESS

A. TECHNICAL CAPACITY

i. Experience and Understanding of Federal Requirements

The Project team has overseen the construction of $569 million in NWSA improvements since the Ports of Seattle and Tacoma created the NWSA in 2015. That in-house capital program experience will oversee the Pierce County Terminal Efficiency Project.

The Project team has the requisite experience and understanding of federal requirements, from contracting to construction, to ensure the project can be delivered on time and within budget. The Project team already has in place partnerships with local, state, and federal agencies to support streamlined permitting for the site that will reduce the likelihood of environmental challenges to the project under the National Environmental Policy Act (NEPA), State Environmental Policy Act (SEPA), Endangered Species Act, among others. The Project team has extensive experience procuring services and goods in compliance with the Federal Acquisition Regulation and is committed to maintaining an open, competitive bidding and procurement process for all components proposed within this application. If awarded PIDP funds, the Project team will quickly begin issuing FAR-compliant bidding packages to enable the Project to begin moving forward shortly after entering into a grant agreement with the Maritime Administration.

ii. Experience Working with Federal Agencies and Federally Funded Projects

The Project team has a long history working with a range of federal agencies, including the U.S. Department of Transportation, Maritime Administration, U.S. Army Corps of Engineers, U.S. Coast Guard, the Federal Emergency Management Administration, National Oceanic and Atmospheric Administration/National Marine Fisheries Service, and US Fish and Wildlife Service. Partnerships with these and other federal agencies have resulted in direct funding of critical infrastructure projects, knowledge sharing and development of best practices, regional readiness planning for disasters, early compliance with forthcoming rules and regulations, and preparing for future economic and community growth.

The NWSA has direct experience with federal grants that will be leveraged to help implement the Project on time and on schedule. In 2020, the NWSA was awarded $10,687,333 for the Terminal 5 Uplands Modernization and Rehabilitation Project: Final Phase, which consisted of infrastructure improvements including paving, installation of Phase 2 of a terminal-wide storm water treatment system, as well as infrastructure to increase the electric refrigerated plug capacity and on-terminal rail infrastructure improvements. The project, managed by the Port of Seattle with NWSA support, is currently under construction and work will continue through 2025.

The NWSA, together with the Port of Seattle, is also administering $17 million via the 2022 PIDP program for the Terminal 5 Export, Expansion, and Emissions Reduction Project. The FY22 project is currently under construction and will meet its obligation, construction, and performance goals.

The NWSA is also administering $54.3 million via the 2023 PIDP program for the Husky Terminal Expansion Part One Project. The grant agreement is currently being negotiated and the Project is expected to meet its obligation, construction, and performance goals once construction commences.

Additionally, the NWSA in collaboration with the Port of Tacoma, has been successful in securing federal Diesel Emission Reduction Act (DERA) grant dollars, most recently for upgrades to yard tractors at the Tacoma South intermodal yard. In addition, in April 2024 the NWSA was awarded FHWA PROTECT funding for their Wapato Creek Culvert Replacement Project, as well as FHWA RTEPF funding to transition to zero-emission port trucks. In early 2023, the Port of Tacoma hired a full-time Grants Administrator to support post-award management activities for Port of Tacoma and NWSA grants in the Tacoma harbor.

iii. Feasibility / Constructability

The NWSA is experienced with the process of port-related development and for decades its governing ports of Tacoma and Seattle have completed similar types of projects requiring planning, stakeholder outreach and coordination, preliminary and final design, environmental review and permitting, bidding, and construction. The design of the project components ranges from the 10 to 60% level. The Project will be procured using a traditional design-bid-build approach.

iv. Consistency with Ongoing Planning Efforts

The NWSA and Port of Tacoma have a five-year Capital Improvement Plan (CIP). The NWSA developed a Coordinated Course to 2035, an internal guidebook that describes how an optimal NWSA gateway can look and function in 2035, or sooner. The Northwest Ports Clean Air Strategy Implementation Plan, developed jointly by the NWSA, the ports of Seattle and Tacoma, and Port Vancouver, BC, provides a roadmap to electrification by 2050, is funded for the first five years in the current CIP.

The transfer zone rebuild and expansion of the existing reefer capacity in this Project supports improved terminal efficiencies and the conversion to energy efficient lighting is designed to support the NWSA's and Everport Terminal Services, Inc.'s plans for zero emissions by 2050 and 2040, respectively. The Project is currently not included in the regional or state Transportation Improvement Programs since PCT is not a public roadway facility, which is the focus of these programs.

v. Schedule

The Project schedule in Figure 11 shows that the Project will be completed without unreasonable delay and as soon as possible given permitting timelines. Design and development activities are underway. Construction start is scheduled for Q2 of 2026 to take advantage of dry weather, and construction end is scheduled for Q2 of 2027. This date is in alignment with the obligation of PIDP funds by September 30, 2027, and the anticipated grant program five-year period of performance. The NWSA is familiar with the MARAD pre-award approval process required to commence design prior to signing of the grant agreement and has included that into the

schedule. Bidding for construction is scheduled to occur only after NEPA is completed. The latest date anticipated for funds to be needed is about Q2/Q3 of 2027.

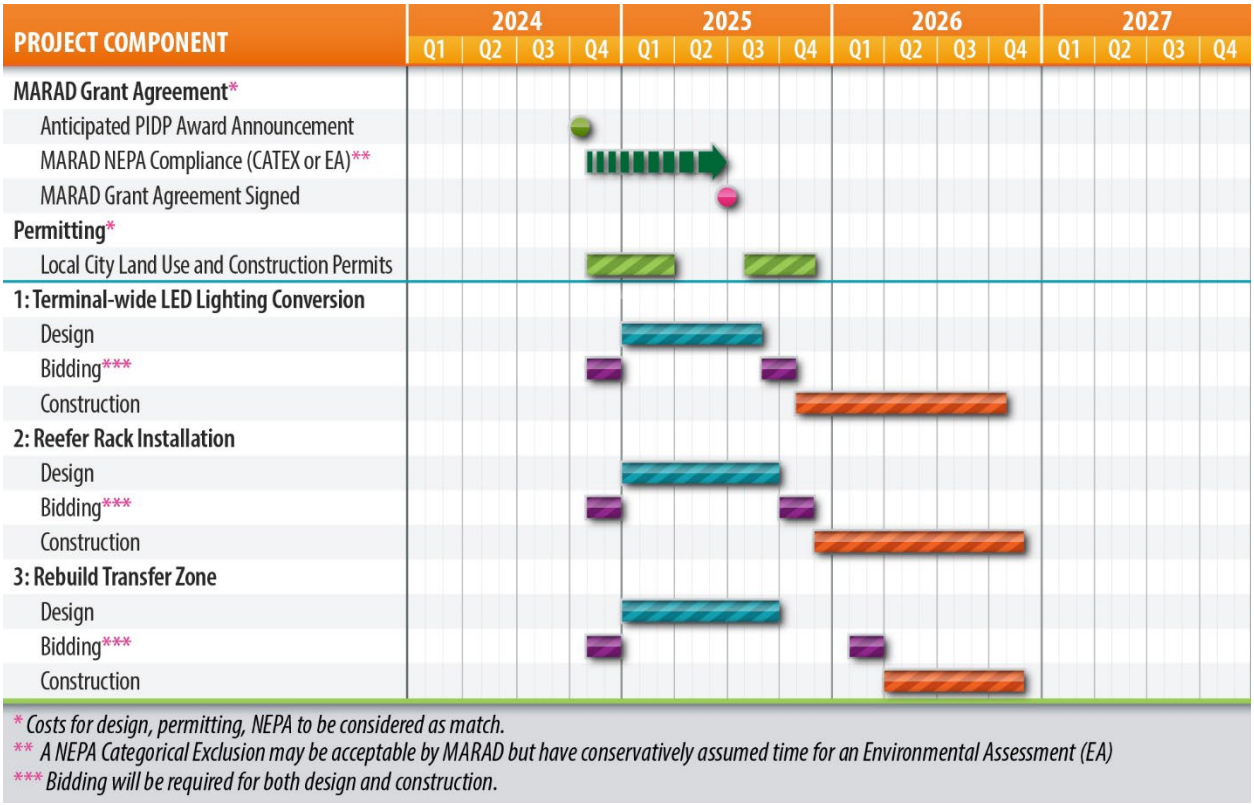


Figure 12: Project Schedule

vi. Cost Data

Costs for the project components, as detailed in Attachment 7, were developed in the first quarter of 2024. Costs associated with materials and labor escalation, general inflation, engineering design, permitting, survey, engineering construction support services, and Washington State sales tax were included as a percent of total cost or relevant component total cost. Some of these actual percentages are dependent on future macroeconomic events and are unknown. As a result, percentages for these items have been developed based on historical experience.

Estimates considered material take-offs from the design and concept plans for the reefer expansion and transfer zone rebuild. The cost estimates were developed in Heavy Bid by Heavy Construction Systems Specialists (HCSS) software. The estimates contain costs developed through two methods of cost estimating, detailed or semi-detailed costs and reference-based costs. (RSMeans and subcontractor pricing data). Estimates also consider estimator knowledge of the industry and recent construction.

The costs for the lighting project component were provided by Lumenal Lighting, a design-build lighting contractor that has evaluated the terminal and its lighting needs in partnership with Tacoma Power.

vii. Risk Mitigation

The improvements proposed for the Project involve standard civil works construction within a design-bid-build procurement framework. As with any project that involves construction below the ground surface, there is always some degree of risk involved with encountering unforeseen conditions such as obstructions, contaminated soils, or unmapped utilities. The minimal risks to Project financing and construction include those outlined in Table 5.

Table 5: Project Risks and Mitigation Strategies

Risk	Description	Impact / Probability	Mitigation
Funding	PIDP grant request rejected	High / Moderate	Timeline for Project will be extended indefinitely and inflation will increase project costs.
Contaminated soil or groundwater	Unknown HAZMAT may be found during construction.	High / Low	Early review of extensive and recent existing site data and possible recharacterization of materials during design and prior to construction.
Regulatory delays	Delayed construction start could increase costs due to inflation	Moderate/ Low	In-water work has been avoided; Port has extensive experience with MARAD NEPA grant agreement requirements and incorporated this effort into the project schedule.
Cost Inflation	Bid costs come back higher than estimated.	High / Moderate	Costs based on supplier information and recent/current construction experience. Final budget will include 10-15% contingency.

B. Environmental Risk

The proposed improvements will occur on an existing and heavily developed port terminal facility. Only upland construction activities are proposed (no in-water work will occur as part of the Project).

The Project will be completed using standard construction practices. Site work may encounter contaminated soil and groundwater from historical use of the project site (Hazardous Materials or HAZMAT), as is common with port terminal facilities. A summary of environmental conditions and constraints present in the area of the Project was completed in 2017, which minimizes this risk. If required, additional targeted soil/groundwater recharacterization will be completed and best practices implemented as commonly used by NWSA for any project that involves below ground construction.

Strong relationships with the City of Tacoma and other local and state agencies allow for early coordination on permitting needs and frequent cost estimate updates will both reduce the risks of schedule delays and increased construction costs.

The Project may be eligible for a NEPA Categorical Exclusion (no in-water work or changes in site use are proposed). Time to complete an Environmental Assessment (EA) has been incorporated into the project schedule, with a likely Finding of No Significant Impact (FONSI).

Section 7 Endangered Species Act (ESA) consultation with the National Oceanic and Atmospheric Administration Fisheries Service and U.S. Fish and Wildlife Service may be required if a NEPA EA is conducted. *A No Effects Determination* would likely suffice as no ESA-listed plants or animals are located at the site. As stated previously, in-water work is not proposed and impacts to aquatic species will not occur.

The NWSA is familiar with MARAD NEPA guidelines and requirements and has successfully complied with them in the past. The NWSA/Port's most recent NEPA process with MARAD was a NEPA EA that was successfully completed with a FONSI within eight months.

viii. National Historic Preservation Act Status

Compliance with Section 106 of the National Historic Preservation Act will also be required if a NEPA EA is needed. This would include outreach with tribes (i.e., the Puyallup Tribe of Indians) and the Washington State Department of Archaeology and Historic Preservation (DAHP). The 2018 cultural resources survey report completed for the General Central Peninsula (GCP) Improvement Program and a project-specific Archaeologic Inadvertent Discovery Plan will likely be sufficient to support the Section 106 consultation requirements. The NWSA and Port have regular meetings with the Puyallup Tribe of Indians staff that can be used for tribal consultation.

ix. Environmental Permits and Reviews, and Studies

The following environmental studies will support NEPA and permitting:

- Cultural Resources Survey – A 2018 cultural resources survey and incidental discovery plan was completed for the Port's General Central Peninsula (GCP) Improvement Program and is anticipated to suffice for any required DAHP Section 106 consultation.
- A summary of environmental conditions and constraints present in the general area of the project was completed in 2017. The memorandum summarizes known areas of soil and groundwater contamination, including a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) confined disposal facility (CDF) with associated covenants, at and adjacent to the project site.

Additional soil testing and hazardous materials testing may be required during design and plans required to define and understand any findings. For example, a Hazardous Material Management Plan (HMMP), often required for port terminal projects, provides guidance for worker safety, material handling, and disposal if contaminated material is encountered during site construction. The presence of soil and groundwater contamination within port terminals is not uncommon and the level of contamination at this site is well studied and understood. Health and safety protocols

for construction, consistent with working on contaminated sites, and coordination with any applicable cleanup site agencies, will be implemented.

x. State and Local Approvals

Compliance with the Washington State Environmental Policy Act (SEPA) will likely result in a SEPA Exemption or Determination of Non-Significance (DNS). The Port, as SEPA lead agency, will commence this three-to-five-month effort in 2024. No in-water permits are required. The following outstanding state and local permits are common to port terminal development and will be applied for further along in design.

A standard Washington State Department of Ecology National Pollutant Discharge Elimination System (NPDES) Construction Stormwater General Permit, including a Stormwater Pollution Prevention Plan may be required for construction. Existing NPDES permits may need to be updated. The NWSA has an award-winning stormwater management team used to working with the Washington Department of Ecology in updating and obtaining NPDES permits and the affiliated stormwater plans.

A City of Tacoma (City) Shoreline Substantial Development Permit Exemption may be required for minor upland work to be completed within 200 feet of the shoreline. If so, a Coastal Zone Management Act (CZMA) certification may also be required. Critical areas preservation compliance is required for projects that could impact critical areas within City limits. City Site Development, Demolition, and Construction Permits are also likely required. These permits will be supported by the project drawings, stormwater site plan report, stormwater pollution prevention plan, and geotechnical report describing existing conditions and infiltration facility designs.

Past experience demonstrates that the NWSA team is familiar with the above requirements and has a long-standing constructive relationship with the City of Tacoma's permitting team. The budget and schedule include effort and time to obtain these permits.

VII. DOMESTIC PREFERENCE

The construction elements included in this grant application are scheduled to comply with FY24 PIDP contracting and acquisition requirements that relate to material or equipment purchases from U.S. suppliers.

Materials and manufactured products used in the Project will be produced or manufactured domestically and in accordance with the Build America, Buy America requirement. This provision will be included in all procurement documents used by contractors. Materials used to improve NWSA property and equipment installed for the Pierce County Terminal Efficiency Project will not require any exception or waiver of the Build America, Buy America provisions described in the Notice of Funding Opportunity. The intent of the NWSA is to source products locally to enhance local benefit and job creation. The NWSA will require Build America, Buy America provisions to flow down to every task undertaken in the project description and funded with the requested MARAD PIDP grant, if awarded.

VIII. STATUTORY DETERMINATIONS

Project Determination	Guidance
1. The project improves the safety, efficiency, or reliability of the movement of goods through a port or intermodal connection to the port.	The Project will support the FY24 PIDP goals of improving the safety, efficiency, and reliability of the movement of goods into, out of, around, and within the port. The proposed terminal improvements will reduce significant worker and operational safety risks; increase terminal capacity and velocity, reduce terminal operating costs; and improve the capacity for, reliability of, refrigerated agricultural exports without adding truck trips to more distant ports. The Project also supports the NWSA's and Everport Terminal Services, Inc. commitments to terminal electrification and diesel emissions reduction.
2. The project is cost effective.	Overall BC Ratio: 1.8; Component #1: 1.5; Component #2: 2.4; Component #3: 0.5. Results of the BCA are summarized in Table 3 and the attached BCA Report and BCA Model.
3. The eligible applicant has the authority to carry out the project.	The NWSA is a port development authority under Washington State Law RCW Chapter 53.08.
4. The eligible applicant has sufficient funding available to meet the matching requirements.	NWSA has sufficient matching funding of $11,647,000 through its CIP.
5. The project will be completed without unreasonable delay.	The Project schedule (Figure 12) shows that the Project will be completed without unreasonable delay and as soon as possible given permitting timelines. Design and development activities are underway. Construction start is scheduled for Q2 of 2026 to take advantage of dry weather, and construction end is scheduled for Q2 of 2027. This date is in alignment with the obligation of PIDP funds by September 30, 2027, and the anticipated grant program 5-year period of performance. The latest date anticipated for funds to be needed is about Q2/Q3 of 2027.
6. The project cannot be easily and efficiently completed without Federal funding or financial assistance available to the project sponsor.	NWSA does not have the means to construct the Project with existing resources. Without a PIDP grant, construction will be indefinitely delayed during this period of significant inflation. Such a delay will directly affect U.S. export farmers (especially reefer exporters) and manufacturers.