

TERMINAL 5 EXPORT, EXPANSION, AND EMISSIONS REDUCTION PROJECT

SEATTLE, WASHINGTON



**U.S. DEPARTMENT OF TRANSPORTATION / MARITIME ADMINISTRATION
FY 2022 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 application, including the Benefit-Cost Analysis (BCA) Report, the Benefit-Cost Analysis Excel model, the cost estimate, a letter of commitment, and Letters of Support have been submitted on www.grants.gov as attachments, separate from this Narrative. NWSA has also set up a website for the submitted grant files:

<https://www.nwseaportalliance.com/2022-pidp-grant-application-terminal-5>.

INTRODUCTORY INFORMATION

<i>Is the applicant applying as a lead applicant with any private entity partners or joint applicants?</i>	No, NWSA is the only applicant
<i>What is the project name?</i>	Terminal 5 Export, Expansion, and Emission Reduction Project
<i>Project Description</i>	The Project is a project of independent utility that comprises the next step in NWSA's continued enhancement of Terminal 5 at the Port of Seattle consisting of two components, 1) Construction of a truck gate complex, and 2) Construction of a cargo container storage yard.
<i>Is this a planning project?</i>	No
<i>Is this a project at a coastal, Great Lakes, or inland river port?</i>	Coastal port
<i>GIS Coordinates (in Latitude and Longitude format)</i>	Latitude 47° 34' 40" N, Longitude 122° 21' 43" W
<i>Is this project in an urban or rural area?</i>	Urban
<i>Project Zip Code</i>	98106
<i>Is the project located in a Historically Disadvantaged Community or a Community Development Zone? (A CDZ is a Choice Neighborhood, Empowerment Zone, Opportunity Zone, or Promise Zone.)</i>	Yes, Historically Disadvantaged Community as mapped by USDOT Transportation Disadvantage Census Tract Layer arcgis
<i>Has the same project been previously submitted for PIDP funding?</i>	No
<i>Is the applicant applying for other discretionary grant programs in 2022 for the same work or related scopes of work?</i>	No, WA State Formula NHFP and STP program applications have been submitted for one component (gate)
<i>Has the applicant previously received TIGER, BUILD, RAISE, FASTLANE, INFRA or PIDP funding?</i>	Yes, in 2020
<i>PIDP Grant Amount Requested</i>	\$17,035,900
<i>Total Future Eligible Project costs</i>	\$24,337,000
<i>Total Project Cost</i>	\$26,259,500
<i>Total Federal Funding</i>	\$17,035,900
<i>Total Non-Federal Funding</i>	\$9,223,600
<i>Will RRIF or TIFIA funds be used as part of the project financing?</i>	No

I. PROJECT DESCRIPTION

The Northwest Seaport Alliance (NWSA) is requesting \$17,035,900 in FY22 Port Infrastructure and Development Program (PIDP) grant funding to help fund the **Terminal 5 Export, Expansion, and Emissions Reduction Project** (the Project). The Project is of independent utility comprising the next step in NWSA’s continued efforts to enhance Terminal 5 (T-5) at the Port of Seattle. The Project consists of two components:

- 1) **Construction of a new truck gate complex** by relocating the 12 existing gate lanes and increasing capacity to process export loads by expanding the number of lanes with scales from six to eight. The Project does include the infrastructure needed to add scales to the remaining four lanes with minimal future effort. The Project will double the on-terminal truck queuing capacity from 100 to 200 trucks by constructing 930-foot gate queue lanes inside the terminal.
- 2) **Construction of a cargo container storage yard** by redeveloping six acres on terminal to increase cargo container handling capacity and add flexibility for the handling and staging of export cargo containers. This expansion will be achieved by demolishing outdated warehouse facilities and repurposing the area for cargo container storage and sorting.



Figure 1: Project Components

The Project is designed to support the Port’s growing export business and increase the operational abilities of the Port by reducing truck turn times (a turn is a roundtrip by a truck/trucker) and expanding the export “windows” for truck-borne export containers. These efficiencies will reduce greenhouse gas emissions and criteria pollutants. The Project will double

the on-terminal truck queueing capacity of the existing gate infrastructure, adding room for about 100 trucks that would otherwise queue on the public roads. As one of the leading export facilities in the U.S., the Project supports improvement of overall supply chain efficiency by reducing the number of empty cargo containers and increasing the number of loaded cargo containers exported back to Asian destinations.

The NWSA is the leading U.S. gateway for many containerized agricultural exports. To help agriculture exporters compete in the global marketplace, it is crucial that our terminal facilities are operationally efficient and reliable. With few exceptions, there is no agricultural commodity produced in the U.S. that cannot be sourced elsewhere in the world. The availability of substitutes means that any increase to transportation costs or reduction in service reliability puts our U.S. exporters at risk of losing customers in overseas markets. **The Project will result in both service improvements and cost reductions for agricultural exporters.**

The Project supports U.S. exports, especially agricultural, by decreasing truck wait time, improving the velocity of the gate for export containers, and by providing additional yard space to receive and handle export products—resulting in a more efficient and less costly export process. Agricultural exporters have been disproportionately impacted by current supply chain congestion as ocean transportation service levels have deteriorated, reducing both container equipment and capacity availability. Expanding capacity at T-5 addresses several key logistical challenges that have impeded export activity, including volatile vessel schedules, and a lack of on-terminal yard capacity. These challenges result in long dwell times for import containers that cannot be moved to oversubscribed warehouses. The yard expansion provides room for longer cargo container receiving times to allow for a more reliable and consistent export process, and to provide a buffer for the effects of vessels that are off schedule.

The environmental and sustainability benefits of the Project include improved air quality due to reduced truck turn times, reduced congestion on public roads near the Port, development of stormwater and utility infrastructure at the truck gate complex, and, importantly, a reduction in the number of empty cargo containers making a non-productive trip across the Pacific.

The Project also advances equity and promotes workforce opportunities. The Project improves a port terminal operated by union labor. The terminal is also served by truck drivers of which 39% are recent immigrants who do not speak English as a first language, identifying as African, Asian/Pacific Islander, Hispanic, or Eastern European. The Project emphasis on growing agricultural exports also supports farm worker jobs, the majority of whom are Hispanic.

The Project has a Benefit-Cost Ratio (BCA) of 1.50. The NWSA is requesting \$17,035,900 PIDP funds for the Project representing 65% of the total project cost of \$26,289,500 and will be supported by \$9,223,600 in matching funds (35% of the project cost). The Project supports 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 and improves air emissions in alignment with the formally adopted Northwest Ports Clean Air Strategy¹.

¹ [Northwest Ports Clean Air Strategy](#)

A. APPLICANT ELIGIBILITY

The NWSA is a marine cargo operating partnership governed by the Port of Seattle and the Port of Tacoma as equal members, with each port acting through its elected commissioners as Managing Members of the NWSA. Both are port authorities under Washington State Law RCW 53.04.010². The NWSA itself is a port development authority under Washington State Law RCW Chapter 53.08³ and as such is eligible to receive PIDP funds. Terminal 5 (T-5) is an international container terminal capable of receiving the largest ocean-going container ships in service today.

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 four federal waterways. By operating jointly as the NWSA, the two ports form the fifth largest container gateway and eighth largest export gateway by TEU (twenty-foot equivalent unit) in North America. This unique partnership allows for strengthening of the Puget Sound gateway and growth for the regional economy, including the Duwamish Manufacturing Industrial Center in Seattle, King County. The NWSA marine cargo operations support 58,400 jobs and more than \$4 billion in labor income across the Washington state economy.⁴

B. PROJECT NEED

i. Address Current Barriers to Agricultural Exports

Congestion-induced impacts to vessel schedules coupled with U.S. consumer demand creating supply chain incentives to rapidly return empty containers to Asia for reload have significantly raised barriers for agricultural product exporters. The agricultural exporters, with perishable cargo, have been disproportionately impacted by the current supply chain congestion. This has resulted in lost markets and severe losses for U.S. farmers, manufacturers, and transportation firms. In 2021, the NWSA saw a 12.5% year-over-year decline in laden exports from 2020⁵. This trend has accelerated with 26.9% decline in the export of agricultural commodities in the last quarter of 2021⁶, and 28.1% during the first quarter of 2022⁷, as the ratio of loaded versus empty cargo container exports shifted to predominately empty containers.

Expanded gate, queuing, and terminal infrastructure at Terminal 5 (T-5) will help reverse this trend. The addition of two scales will improve the export-processing capacity of the gate by 30%, and with the ability to add four more scales so that all 12 gate lanes can handle exports with minimal effort, will improve overall export velocity. This will reduce truck wait times and emissions. In addition, the expanded cargo container storage space will allow for longer receiving times at the gate, resulting in a more reliable and consistent export process.

² [RCW 53.04.010](#)

³ [RCW 53.08](#)

⁴ [Economic Impact | Northwest Seaport - Port of Tacoma \(nwseaportalliance.com\)](#)

⁵ [Cargo Statistics | Northwest Seaport - Port of Tacoma \(nwseaportalliance.com\)](#)

⁶ Data Source: [PIERS](#)

⁷ [Cargo Statistics | Northwest Seaport - Port of Tacoma \(nwseaportalliance.com\)](#)

Our agricultural producers rely on export markets to remain profitable and viable. Modernizing and improving NWSA facilities will support U.S. exporters from Washington, Oregon, Idaho, Montana, Minnesota, the Dakotas, and Iowa. These exporters depend on the NWSA for the fastest and most cost-effective shipping of price- and time-sensitive agricultural products such as frozen potato products, apples, dairy products, meat, and seafood, as well as hay, soybeans, legumes (peas, beans, and lentils), and potatoes. By increasing exports, the Project will not only help NWSA’s exporting industries, but will also help restore balance to the overall supply chain and empty container access for U.S. exporters and the agricultural producers that export their products across the globe.

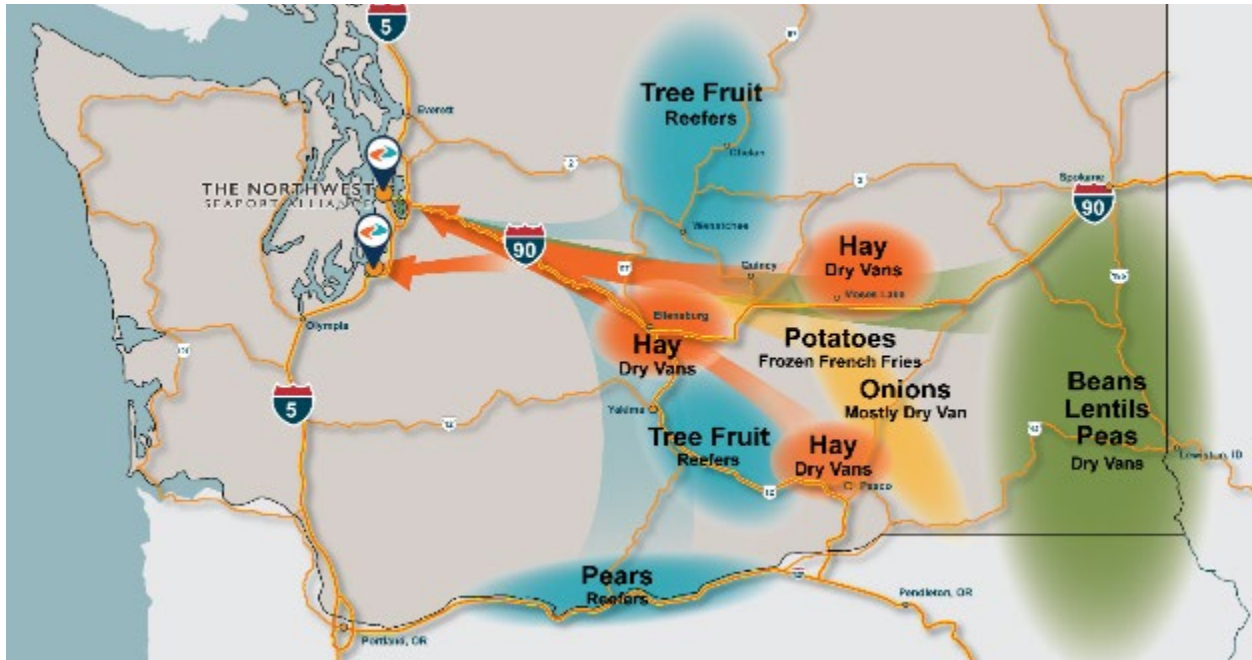


Figure 2: NWSA Export Origins

ii. Further Increasing Capacity, Velocity, and Efficiency

The Project is of independent utility and comprises the next step in NWSA’s continued enhancement of Terminal 5 (T-5). The Project will make better use of existing port land and infrastructure. Terminal 5 is designated in NWSA Strategic Business Plan for investments to draw ultra-large cargo ships to the Pacific Northwest. The NWSA is currently completing a modernization of the terminal to handle ultra-large container ships with a capacity of up to 18,000 containers. Terminal 5 reopened in January 2022 after being closed and under construction for Phase 1 of the Modernization Program for five years. Ships now calling on T-5 as part of their regular route include two 13,000 TEU vessels, the MSC Renee and MSC Cristina.

Phase Two, which was the recipient of a prior (2020) PIDP grant, is on track and scheduled to be completed in 2023. Terminal 5 will attract new import and export cargoes with its generous size, efficient layout, on-dock rail, and immediate access to multimodal transportation nodes, including Class 1 rail corridors and intermodal yards, the National Highway System’s Interstate-5

and Interstate-90, and Marine Highway M-5. Both Project elements will support the higher cargo volumes that will come with the opening of the second berth that is part of Phase 2.

iii. Reduce Truck Queuing on Public Streets

Like most container terminals in North America, Terminal 5 (T-5) operations can result in on-street truck queuing and congestion in the constrained right of way of west-bound SW Spokane Street and its bridge across the West Duwamish River. Before its closure in 2015, T-5 experienced truck queues on public streets quite frequently, causing periodic safety issues. Truck queues on the bridge, preventing the bridge from opening for domestic cargo destined for Alaska and Hawaii, have the potential to affect time-sensitive cargo that is dependent on tidal windows.



Figure 1: Truck Queuing on SW Spokane Street and Bridge Across the Duwamish River

C. PROJECT BENEFITS

The Project will allow NWSA to better compete against subsidized international competition, improve conditions for exports, reduce congestion, and reduce the greenhouse gas footprint from terminal operations.

i. Support for U.S. Agricultural and Other Exports

The NWSA is the leading U.S. gateway for many containerized agricultural exports. To help agriculture exporters compete in the global marketplace, it is crucial that NWSA's terminal facilities operationally efficient and reliable. With few exceptions, there is no agricultural commodity produced in the U.S. that cannot be sourced elsewhere in the world. The availability of substitutes means that any increase to transportation costs or reduction in service reliability puts U.S. exporters at risk of losing customers in overseas markets. The Project will result in both service improvements and cost reductions for agricultural exporters using Terminal 5 (T-5).

As an example, hay is the largest single export commodity at NWSA and it primarily originates in Ellensburg, WA, which is located approximately 100 miles from NWSA terminals. Truckers deliver containerized loads from Ellensburg. Truckers must be able to complete two trips per day to make exporting profitable. An expanded gate complex reduces the time to complete a delivery, helping that trucker complete the minimum two daily trips.

An expanded yard that can function independent of the existing yard will help support consistent service levels by ensuring the terminal can receive and store loaded exports for longer time periods. In the current environment of low vessel schedule reliability by the ocean carriers, additional terminal space is crucial to allow for staging of cargo containers, available for loading when delayed vessels arrive. This increases service consistency, helping ensure a reliable flow of product to the overseas customers and minimizing the risk of lost business due to poor service levels or the product losing value due to deterioration or obsolescence...if they cannot get to customers before the next harvest is available, it has virtually no value.

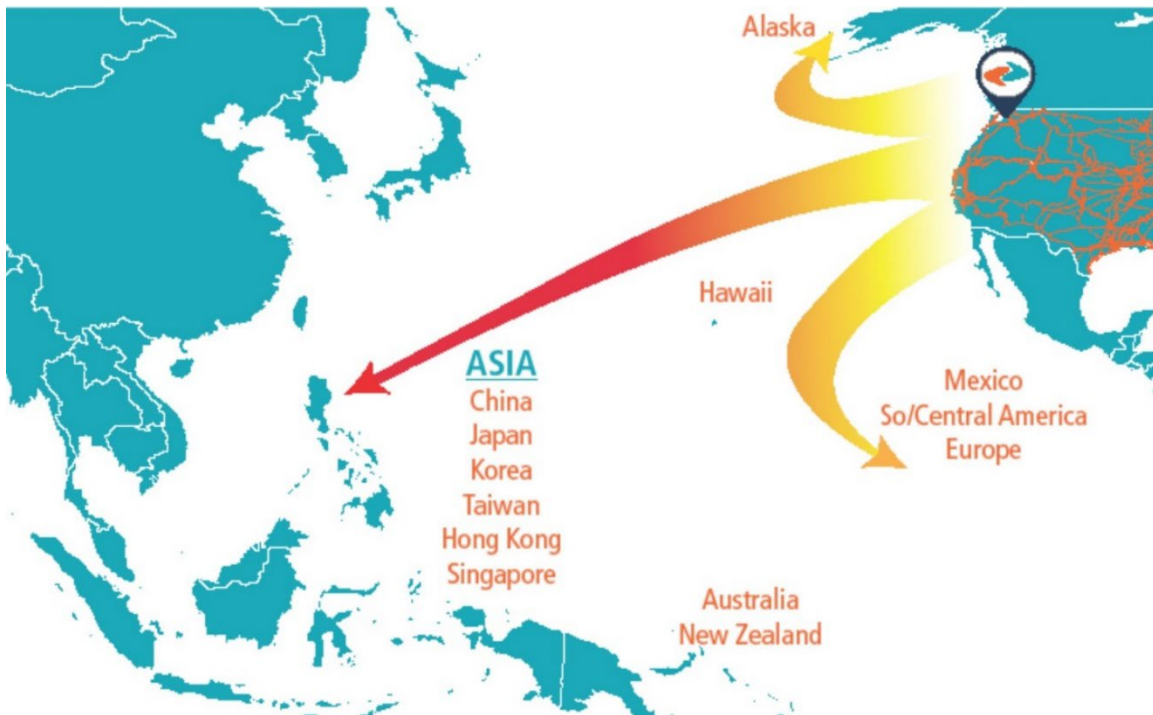


Figure 2: NWSA Export Markets Served

ii. Ease Congestion and Improve the Reliability of Major Freight Infrastructure

The new truck gate complex is designed to reduce truck queuing and congestion on SW Spokane Street and its bridge across the Duwamish River by doubling the on-terminal queuing capacity and increasing the number of gate lanes with scales. This will reduce congestion on west-bound SW Spokane Street by half. This reduces congestion for the industrial, manufacturing, and other businesses along the nearby roads. This includes the SW Spokane Street corridor between East Marginal Way and West Seattle, including a major Nucor Steel production plant located close to the terminal. It will also reduce the potential for negative impacts to domestic marine cargo traffic on the Duwamish River. Terminal 5 is located on Harbor Island, between West Seattle and downtown. West Seattle is a densely populated part of Seattle and reducing congestion in this corridor will result in safety and route reliability for all modes.

iii. Improve Terminal 5 Capacity and Operations

The Terminal 5 (T-5) container yard expansion will increase the terminal's cargo container support yard area by six acres. This increases the container capacity of the terminal and provides the terminal operators more flexibility in managing yard operations. For example, the area may be dedicated to early arriving export loads. The addition of two scales, with the option to add 4 more for a total of 12, increases the ability of the terminal to process export loads through its gate by 500 trucks per day. This improves the export intake capacity of the gate by 30% and provides the terminal operator with additional flexibility in managing individual gate lanes. More lanes with scales allow the terminal operator to dedicate lanes for export-loads-only when they are needed to reduce export truck wait times.

The Project includes installation of infrastructure necessary to equip the remaining four gate lanes with scales by simply removing concrete blocks, dropping in scales and connecting them to power. The existing terminal operating system provides the terminal operator with the ability to add scales as necessary and further improve the flexibility of the gate system to manage all inbound trucks.

iv. Reduce Greenhouse Gases

The Project will reduce greenhouses gas emissions in two ways:

1. The expanded scales and terminal capacity will reduce truck turn times and truck queuing on SW Spokane Street and related idling of diesel vehicles, leading to reduced greenhouse gas emissions and criteria pollutants.
2. The greater operational efficiencies at the terminal will lead to an increase in the volume of loaded export containers and reduce the number of empty export containers. Moving empty export containers increases greenhouse gas emissions without a corresponding public or national economic benefit.

D. STATEMENT OF WORK / PROJECT COMPONENTS

i. Project Component 1: Construction of a New Truck Gate Complex

The new truck gate complex is designed to increase the velocity of export cargo moving through the terminal while also reducing truck queuing on SW Spokane Street and its bridge across the Duwamish River. This project component includes:

- New inbound truck gate infrastructure 930-feet from the Terminal 5 entrance, doubling the on-terminal queueing capacity from 100 to 200 trucks,
- 12 inbound gate lanes with the communications infrastructure and scanning equipment necessary to process inbound trucks—the collected data will automatically populate the existing terminal operating system. Eight new scales, and the infrastructure for 4 more scales, will be deployed. Compared to the existing gate, this will initially provide two additional lanes with scales, with capacity to be expanded to 12 scales as needed,
- New restrooms for truckers,

- Pavement striping for a new “trouble area” outside the queuing area for trucks without adequate credentials, to prevent backups in the queue,
- Associated utilities and stormwater infrastructure to support improvements, and
- Demolition of the current gate infrastructure.

ii. Project Component 2: Construction of a Cargo Container Storage Yard

The container storage yard expansion component will increase the on-terminal container yard storage yard capacity by approximately six acres. Located close to the new gate complex while connected to the existing container yard, it provides both additional space and increases the flexibility of the terminal to manage export containers. This project component includes:

- Demolition of an obsolete warehouse,
- Paving six acres to cargo container storage load standards,
- An improved connection to the existing cargo container yard, and
- Stormwater infrastructure, utility, and other infrastructure to support improvements.



Figure 3: Project Components

II. PROJECT LOCATION

A. PORT LOCATION

Terminal 5 (T-5) is located in the City of Seattle, King County, Washington State with a street address of: 2701 26th Ave SW, Seattle, Washington 98106. Located on the west shore of the Duwamish Waterway at Elliott Bay. Geocoordinates for the site are: Latitude 47° 34' 40" N, Longitude 122° 21' 43" W. All of the project components are located within the boundaries of the terminal. The Project is a “coastal port project” subject to the Army Corps of Engineers’ regulatory jurisdiction for oceanic and coastal waters pursuant to 33 CFR § 329.12. Port of Seattle terminals are capable of receiving oceangoing vessels with a draft of at least 20 feet.



Figure 4: Port of Seattle and Terminal 5

B. PROJECT SITE

The Project is located inside the boundaries of the Terminal 5, which is part of the NWSA's Seattle international container terminal facilities, anchoring the Seattle freight cluster with an annual throughput capacity of 1.2 million twenty-foot equivalent units (TEUs) at full build-out.



Figure 5: Terminal 5 Configuration

C. TRANSPORTATION CONNECTIONS

Terminal 5 (T-5) is served by a designated National Highway System Freight Intermodal Connector, SW Spokane Street. The Spokane St Swing Bridge (low bridge) is an essential route for emergency vehicles, transit, heavy freight, and people biking and walking. It provides an important connection between the maritime and industrial businesses on the west side of the Duwamish Waterway to those on the east side, especially with respect to the marine cargo terminals.

SW Spokane Street connects T-5 and other freight-dependent businesses like Nucor Steel to I-5, I-90, warehousing, and distribution centers serving Alaska, and both international and domestic rail yards operated by BNSF Railway and Union Pacific. Its on-terminal rail provides immediate access to the nation's Class 1 rail network, connecting the Pacific Northwest to America's heartland and the East Coast. Ease of access to these national transportation infrastructure assets reduces the costs of moving cargo through T-5, making American goods more competitive on the international market and supporting reliable delivery of components needed for domestic manufacture of U.S. products.



Figure 6: T-5 Transportation Connections

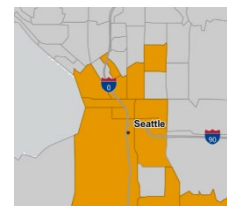
D. CENSUS-DESIGNATIONS

The Project is located within the Seattle Urbanized Area 80389 and Census Tract 53033009900, as defined by the U.S. Census Bureau. The City of Seattle’s 2010 population was 608,660, and its 2020 estimated population was 737,015⁸.

E. COMMUNITY DEVELOPMENT ZONES

Terminal 5 is located approximately 4,500 feet to the west of Census Tract 53033009300, which is designated as a Qualified Opportunity Zone, as shown in Figure 9. Both BNSF Railway and Union Pacific operate intermodal rail yards in the Opportunity Zone, and there are several warehousing and distribution centers that serve domestic and international cargo moving through NWSA terminals. The truck gate complex and container yard expansion project components will improve access and reduce congestion between cargo handling facilities in the Opportunity Zone and the NWSA’s international container terminals 5, 18, 30 and 115, its domestic container terminal in Seattle. These benefits will also accrue to other businesses and industry in the Opportunity Zone, and to longshoremen from Seattle’s ILWU Local 19, whose dispatch hall is in the Opportunity Zone.

The area is mapped as a Historically Disadvantaged Community by USDOT Transportation Disadvantage Census Tract Layer in [arcgis](https://arcgis.com). Census tracts with four or more Transportation Disadvantage indicators will be visible in orange.



⁸ [U.S. Census Bureau QuickFacts: Seattle city, Washington](https://www.census.gov/quickfacts/seattle-city-washington)

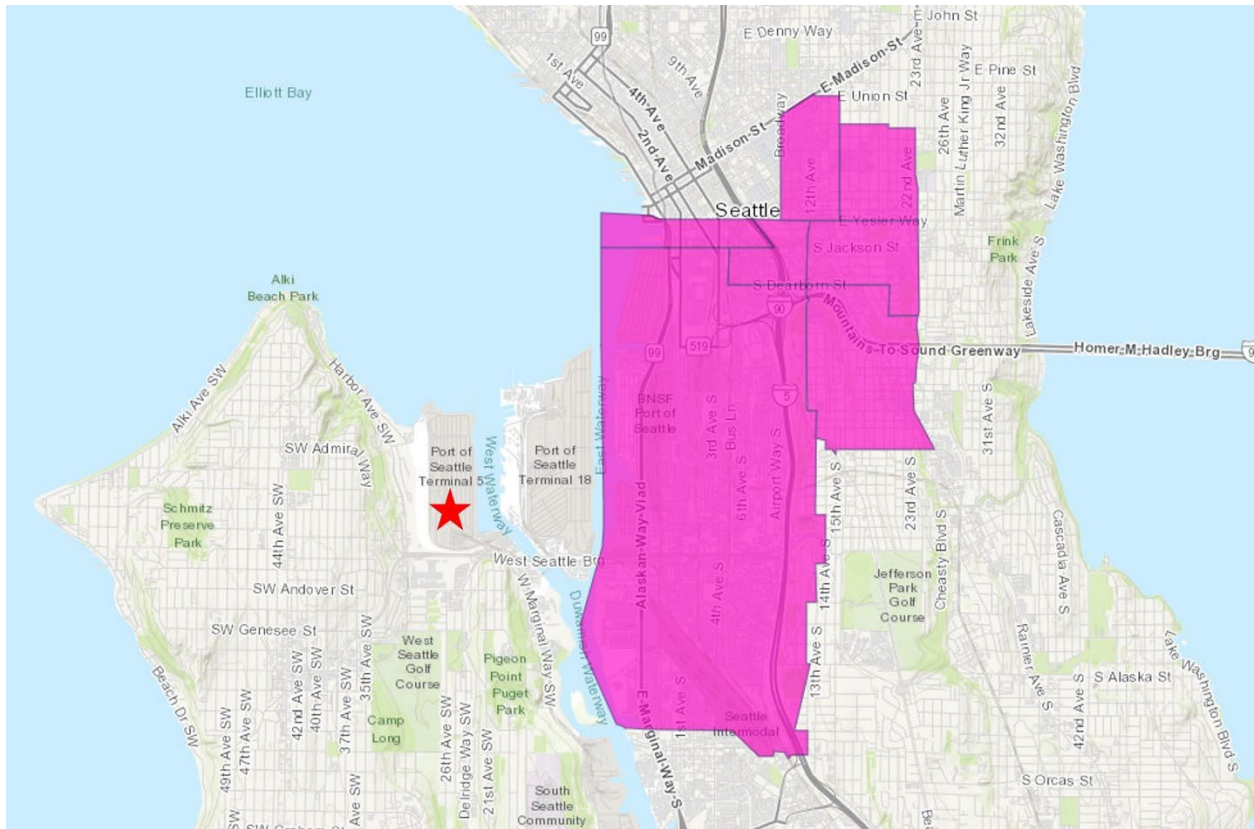


Figure 7: Project-Adjacent Opportunity Zones

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

A. PROJECT COSTS

The latest cost estimate, not including previous design costs, for the Project is \$26,289,500. Table 1 shows the expected project cost for the two project components, full cost estimates are provided as an attachment to this application.

Table 1: Project Costs & Funding Sources

Project Component	Project Cost	PIDP Ask	Match (NWSA)
1. Truck Gate Complex	\$15,590,500	\$10,114,366	\$5,476,134
2. Yard Expansion	\$10,669,000	\$6,921,534	\$3,747,466
TOTAL	\$26,259,500	\$17,035,900	\$9,223,600
Percent Ask/ Match	100%	65%	35%

B. PIDP FUNDING REQUEST AND MATCHING FUNDS

The request of \$17,035,900 in PIDP grant funding will allow the NWSA to complete the Project in the most time- and cost-effective manner for the benefit of U.S. exporters, the trucking industry, and other freight stakeholders throughout the region and nation.

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 approximately 65% of total project costs. The cost share from NWSA will come from the Port of Seattle's cash on hand generated by the Port of Seattle's tax levy authority and related general obligation bonds.

D. DOCUMENTATION OF FUNDING COMMITMENT

The Project's cost share will be funded through non-PIDP funding sources. The NWSA is pursuing other external funding opportunities, but if they are unable to secure those funds, the NWSA is committed to funding the remaining balance through its own resources. The Project components are included in a binding lease agreement between the NWSA and the terminal operator.

The NWSA Chief Executive Officer details the Project's funding sources and their authorization in the attached letter of funding commitment.⁹

E. PREVIOUSLY INCURRED EXPENSES

The design for the Truck Gate Complex project component is 90% complete. The costs associated with this design work have already been committed and as such are not included in the project cost in Table 1 and are not considered as a part of the non-Federal match. The final design, permitting and any NEPA costs for the Yard Expansion project component are included in the project cost in Table 1. **Pursuant to 46 U.S.C. 54301(a)(10)(B), the NWSA intends to request approval from DOT for these costs to count toward the non-Federal cost share. The NWSA intends to expend these costs between the time of grant award announcement and obligation.**

⁹ Match letter is provided as an attachment to this grant application.

IV. MERIT CRITERIA

A. ACHIEVING SAFETY, EFFICIENCY, OR RELIABILITY IMPROVEMENTS

i. Loading and Unloading of Goods

The two project components, in conjunction, will improve the loading and unloading of export containers arriving at Terminal 5. The new gate complex addition of two scales to the new 12-lane truck gate complex and eight scales increases the capacity of the gate to process trucks carrying export containers into the terminal by 500 trucks per day—a 30% increase over the capacity of the existing 12-lane gate complex with six lanes with scales. Meanwhile, the yard expansion will add six acres of storage to the container yard on the terminal by demolishing an outdated warehouse and parking area. This increases the container-handling capacity of the terminal for dedicated areas to export loads only. This provides the opportunity to increase the time window during which exports can be dropped off at T-5 to more than the typical 1-2 days before a vessel arrives, greatly benefitting exporters who now have more flexibility in managing their truck fleets.

Combined, these improvements will support U.S. exporters from Washington, Oregon, Idaho, Montana, Minnesota, the Dakotas, and Iowa. These exporters depend on the NWSA for the fastest and most cost-effective shipping of price and time-sensitive agricultural products such as frozen potato products, apples, dairy products, meat, and seafood, as well as hay, soybeans, legumes (peas, beans, and lentils), and potatoes. By increasing export handling capacity and storage, the Project will not only help NWSA's exporting industries, but will also help restore balance to the overall supply chain, including empty container access for U.S. exporters and the agricultural producers that export their products across the globe.

Safety within the truck gate complex will also be improved as the truck gate complex project component includes a new striped "trouble area" for trucks with incomplete or incorrect credentials/paperwork outside of the queuing area, a kiosk which drivers will use to address issues with credentials will be located to ensure safe pedestrian access. A new bathroom facility will be located next to the kiosk, and a secure walkway will connect the two to the striped trouble truck parking area. These improvements will reduce the number of truck delays due to mechanical or human issues that can paralyze an entire truck queue, sometimes for hours.

ii. Movement of Goods Into, Out of, Around, or Within a Port

Most, if not all, container terminals in the U.S. experience truck queuing in the public right of way at some level, although ports and their tenants are working hard to minimize these incidents. The same is true for the NWSA and the operator of Terminal 5. **The truck gate complex project component will reduce congestion on the public roadway network by doubling the on-terminal queuing capacity from 100 to 200 trucks, cutting the potential for truck queuing outside the terminal in half.** This will reduce truck queue-related congestion on SW Spokane Street, a National Highway Freight Network Corridor serving industry, businesses, and residents of West Seattle. This is particularly important in this location, where openings of the "low bridge" across the West Waterway of the Duwamish River, which is part of SW Spokane Street, may close the

road to traffic an average of 11-12 minutes between 80 and 180 times per month on weekdays. Additional truck queueing related to T-5 can compound the impacts of the bridge opening to marine traffic. The Project will allow goods entering and exiting the Port complex greater ease of movement with the following improvements:

Ability to turn more trucks faster. Adding two scales to the gate and dedicated yard space for export containers increases its capacity to simultaneously process trucks carrying export cargo into the terminal, improves the velocity of inbound trucks and expands the terminal's cargo handling capacity. More freight will be able to enter the terminal faster.

Reduced truck queuing on SW Spokane Street. Few cargo container terminals in North America can entirely prevent queues of trucks on city streets waiting to enter the terminal. Doubling the on-terminal queueing capacity and the number of gate lanes with scales will reduce the potential for street congestion due to trucks waiting to enter the terminal by half. This affects trucks serving industrial, manufacturing, and other businesses along the nearby roads including SW Spokane St. corridor between East Marginal Way and West Seattle. This also benefits people who live nearby and who depend on this corridor to reach work, school, and other destinations.

Lower risk of impacts on river cargo. The main access route to Terminal 5 is via SW Spokane St., across the "low bridge" over the Duwamish River. This bridge opens to river traffic, including commercial traffic serving Alaska and Hawaii, about 11 times each weekday. Reducing truck queues waiting for access to T-5 reduces the potential for trucks to prevent the bridge from opening for cargo barges on the river.

Increased safety on terminal and on streets around the port. The major safety benefits of the Project will occur outside the terminal boundaries: queuing on SW Spokane Street, and the bridge over the West Duwamish Waterway, increases the potential for rear-end and head-on collision accidents for trucks (see truck driving in in the wrong direction in the left picture below) and other vehicles. Increased on-terminal truck queueing capacity and an increase in gate lanes with scales will reduce the potential for such queues and related accidents. As the picture below indicates, this has been a problem in the past: every post along west-bound SW Spokane Street, a National Highway Freight Network Connector, carries signs reading: "Do Not Block Bridge" and "\$124 Fine" to prevent drivers from creating a potentially unsafe situation.

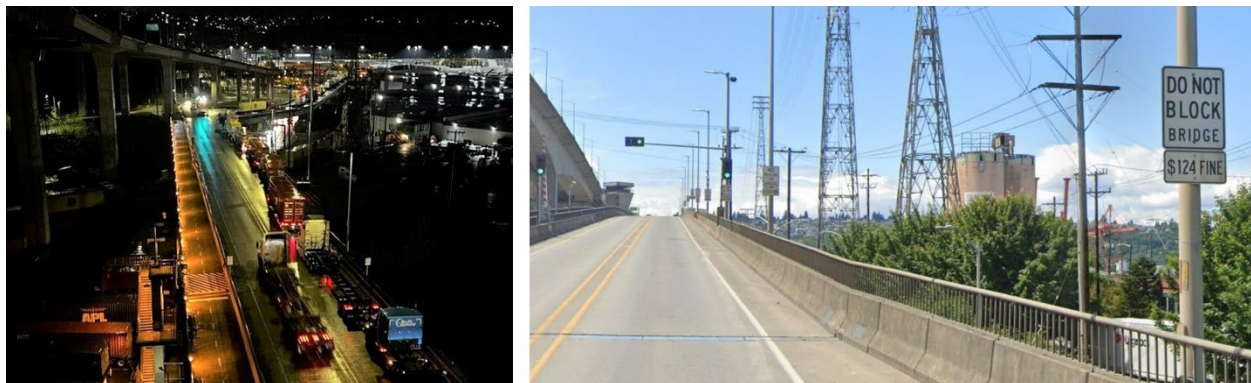


Figure 8: Truck Queue Safety

iii. Operational Improvements / Port Resilience

The truck gate complex project component will improve truck queue capacity adding room for about 100 trucks and removing trucks from the public right of way. The Project will also construct permanent restrooms for the truck drivers and a “trouble area” for trucks with incomplete papers, or those experiencing mechanical or health issues. Truck driver illness or mechanical failures in the terminal queue can paralyze the movement of hundreds of trucks for hours at a time.

The Project improves the resiliency of the freight transportation system by increasing the ability of the terminal to process export cargo, helping address market disruptions such as the current covid-related supply chain problems. It also improves resiliency by promoting continuous transportation operations: It reduces the potential for disruptions to commercial river traffic on the West Duwamish Waterway which serves cargo vessels serving Alaska and Hawaii and reduces the potential for congestion affecting other freight truck traffic on west-bound SW Spokane Street. It also increases redundancy in the capacity of the gate by adding two truck scales, and making provisions for the easy installation, of an additional 4 truck scales as cargo volumes increase.

The Project includes equipment that will automatically populate Terminal 5’s existing terminal operating system with all necessary container information on all twelve lanes. It will also include state-of-the-art stormwater facilities specifically designed to minimize the impact of terminal operations.

iv. Environmental or Emissions Mitigation Measures

The reduction of truck queuing on SW Spokane Street commensurately reduces diesel emissions. This applies to both trucks waiting to enter Terminal 5 from SW Spokane Street and any truck or other vehicle stuck in the queue. Truck drivers on the terminal are instructed to turn off their equipment during breaks in, and before the start of, terminal operations. Trucks idling in the right of way are not similarly governed. Queues are more likely to occur in the morning when the queuing area is open, but the terminal has not started operations, and during labor-contract mandated breaks.

B. SUPPORTING ECONOMIC VITALITY AT THE NATIONAL AND REGIONAL LEVEL

The NWSA is the fourth largest gateway in North America. The region also hosts the 4th largest warehousing and distribution center in the country. The world’s largest shipping lines connect NWSA’s harbors with major ports throughout the Asia Pacific, Oceania, Latin America, Mediterranean, Middle East, Europe, Alaska, and Hawaii. As the closest U.S. port to Asia and a frequent first and last port of call on international ocean services, shippers can count on faster transits and greater flexibility from NWSA routings. The NWSA handles more than 80% of commerce between the lower 48 states and Alaska. In addition to international and domestic container handling capabilities, NWSA marine cargo facilities also are a major center for bulk, breakbulk, project/heavy-lift cargoes, automobiles, and trucks.

i. Benefit-Cost Analysis Summary

For this analysis, the following With and Without-Project Scenario assumptions were considered:

- With-Project Scenario:** Terminal 5 gate complex expansion with added container yard capacity, supports increased export volumes and velocity. This additional gate capacity and container yard space will allow the NWSA and the Terminal to prioritize and pre-position just-in-time export containers and to better manage lower priority import and empty containers. As a result, truck wait times will be reduced by 15 minutes on average for all export boxes. The reduction in wait time during peak hours will have a significant impact on export boxes originating in areas just east of the Cascade Mountains' passes. Truckers will be able to pick up and return a second box within a single shift. As a result, exporters will be able to get more boxes delivered at a lower cost. In addition, the new gate location will allow for more on terminal truck queuing on the terminal, reducing the likelihood of the queue overflowing onto SW Spokane St during peak hours.
- Without-Project Scenario:** Terminal 5 does not increase its gate or container yard capacity. Congestion will worsen along the surrounding highways of the terminal as truck traffic continues to be an issue, increasing safety costs, truck operating costs, and greenhouse gas emissions. The Port's ability to support agricultural exports and other exports will not be improved as truck wait times are not alleviated (at least in part) by added gate capacity.

The BCA reflects USDOT's standard guidance regarding forecast periods and discount rates. As such, all estimates were calculated over a 20-year period, beginning in 2025 following the Project's completion in 2024 in the With-Project Scenario. Additionally, a discount rate of 7 percent was used throughout the analysis (a discount rate of 3 percent was used for CO₂ emission benefits) as suggested in USDOT BCA guidelines for 2022. **The Project has a Benefit-to-Cost Ratio of 1.50.** The results of the BCA are summarized in Table 2.

Table 2: Summary of Project Benefits (2020 US\$, PV Discounted @ 7%)

Category	Total
Economic Competitiveness	\$25,561,817
Environmental Sustainability	\$539,959
Operating & Maintenance Costs	(\$1,269,306)
Residual Value	\$1,442,209
Total Benefits	\$26,274,678
Project Costs	\$17,534,894
Net Present Value	\$8,739,785
Benefit to Cost Ratio	1.50

The benefits quantified to determine the Benefit-to-Cost Ratio stem from the increase in annual export container storage capacity, reduction in truck queuing time, and reduced greenhouse gas emissions. The analysis presented here quantifies the following benefits:

- **Reduction in truck waiting time.** The new gate complex and yard expansion will reduce average truck turn times by 15 minutes for export containers. Currently, the average turn time at the Terminal 5 is 70 minutes for all containers. Reduced truck waiting times will result in lower fuel consumption and time saving benefits.
- **Reduction in off-terminal truck queuing.** The repositioning of the new gate terminal will allow for 100 more trucks to wait on-terminal, thereby taking trucks off SW Spokane St. Congestion costs associated with such traffic has been considered as part of this analysis. While such congestion on the road can also pose a major issue for emergency response times, such benefits have not been considered as part of this analysis.
- **Reduction in trucker shifts.** The gate complex upgrade and yard expansion will allow export containers to move through Terminal 5 much faster. Therefore, for certain markets, truckers will be able to do two full truck turns in a shift as opposed to just one under current congestion conditions at the gate and external roadways. Therefore, certain exporters will only require half the number of truck shifts to deliver the same number of boxes to the Port. **In total, the Project is expected to save 1.8 million hours for truckers delivering export boxes to Terminal 5 over the 20-year analysis period.**

C. ADDRESSING CLIMATE CHANGE AND ENVIRONMENTAL JUSTICE IMPACTS

The Northwest Ports Clean Air Strategy among Tacoma, Seattle and Vancouver B.C. now calls for zero-emission northwest ports by 2050. NWSA first adopted its aggressive Greenhouse Gas and air pollutant emission reduction goals as part of their 2017 NWSA Greenhouse Gas (GHG) Resolution and the Northwest Ports Clean Air Strategy (NWPCAS).

Through the Northwest Ports Clean Air Strategy, the NWSA has established the goal to phase out emissions from seaport related activity by 2050, taking direct action to reduce and ultimately eliminate air and climate pollution from its operations. The work that the NWSA will complete under the Northwest Ports Clean Air Strategy will contribute to meeting the Biden Administration's GHG Targets and support the goals of the Justice 40 Initiative, as many of the port activities in the Puget Sound region occur in or adjacent to disadvantaged communities.

Expansion of the truck queue infrastructure, which will double the on-terminal queuing capacity to 200 trucks, will reduce congestion near the terminal by reducing or eliminating the need for trucks to queue in the right of way. **This will reduce air emissions associated with congestion.** Idling will also be reduced through more efficient management of truck queues using the expanded truck queue area and leveraging the additional in-gate lanes. This will reduce queue times for trucks waiting to enter the terminal and thereby reduce idling. These emission reductions are very impactful because they will occur in a census block that scores a 9 on the Diesel Pollution and Disproportionate Impacts metric, according to the Washington State Environmental Health Disparities Map. It is also near other census blocks that score 9s and 10s.

The benefits of air emission reductions go beyond the immediate vicinity of T-5 and would reduce air pollutant loads on communities that are disproportionately impacted by diesel pollution. Terminal 5 is part of the Duwamish Manufacturing Industrial Center in Seattle, King County, WA. Adjacent communities benefiting from emissions reductions include the West Seattle

community, downtown Seattle, South Downtown (SoDo), the Beacon Hill communities, and the Duwamish industrial area that borders the facility to the south.

Based on the Washington Tracking Network’s Diesel and Disproportionately Impacted Communities Index¹⁰, the project location and surrounding Census blocks experience high levels of diesel pollution load and socioeconomic factors exacerbate these impacts. Specifically, the project location (Washington King County census tract 009900) scores a 9 (out of 10) on the index. Additionally, most census tracts in the Duwamish Valley area (the Georgetown and South Park neighborhoods), Beacon Hill, downtown Seattle, and SoDo rank at 9s and 10s in the diesel and disproportionate impacts metric. Furthermore, King County is on the latest National Air Toxics Priority List, based on results of the 2014 National Air Toxics Assessment.

D. ADVANCING EQUITY AND OPPORTUNITY FOR ALL

The Project serves the truck drivers moving containers in and out of NWSA container terminals in Seattle. Many drivers moving containers to and from our terminals are recent immigrants or first-generation Americans. That is because the industry is known for its ability to provide a job that has relatively low entry requirements (it does not require English proficiency). A 2018 Truck Driver Survey¹¹ survey found that:

- 39% of the drivers did not speak English as a first language.
- Of those 39%, 66% identified as African, Asian or Pacific Island, Hispanic or Latino/Latina, or Middle Eastern. The remaining 34% identified as Eastern European.

In addition, the Project provides new amenities to the truck drivers. It will install permanent restrooms in the vicinity of the gate, easily accessible on foot, and a “trouble area” for truck experiencing mechanical or compliance issues.

A recent Department of Labor survey of farm workers found that sixty-four percent of hired farmworkers interviewed in fiscal years 2017–2018 were born in Mexico, 32 percent were born in the United States or Puerto Rico, 3 percent were born in Central America, and the remainder originated from various other regions, including South America, the Caribbean, Asia, and the Pacific Islands. Seventy-seven percent of all farmworkers were Hispanic. Among U.S.-born workers, 30 percent were Hispanic. In terms of race, nearly one-third of crop workers self-identified as White (32%), and nearly two-thirds categorized their race with an “other” response (65%). Six percent of crop workers were identified as indigenous.¹²

The Project improves, and provides resiliency for, transportation services for export cargo from Eastern Washington and other agricultural areas where labor is predominantly Hispanic or Latina/Latino. Port truck drivers are disproportionately independent owner operators, small business owners driving their own truck. Unlike employees of larger trucking firms who get paid by the hour, independent owner operators get paid for each trip, independent of the time it

¹⁰ [Washington Environmental Health Disparities Map](#)

¹¹ [2018 Truck Parking Survey Final.pdf](#)

¹² [Findings from the National Agricultural Workers Survey \(NAWS\) 2017–2018: A Demographic and Employment Profile of United States Farmworkers \(dol.gov\)](#)

takes. This Project indirectly addresses this issue by improving the ability of the gate system to process full export containers into the terminal.

Any increase in the velocity of the truck gate that shortens the time independent truck drivers are waiting for their container to be processed and improves their ability to make a living. Any improvement in the capacity of T-5 to move agricultural exports increase export capacity, supporting additional agricultural jobs.

One of the benefits of the Project is that any reduction in truck queuing on SW Spokane Street will commensurately reduce diesel emissions. This applies to both trucks waiting to enter T-5 and any truck or other vehicle stuck in the queue. Truck drivers on the terminal are instructed to turn off their equipment during breaks in, and before the start of, terminal operations. Queues are more likely to occur in the morning when the queuing area is open and during labor-contract mandated breaks.

The benefits of air emissions reductions go beyond the immediate vicinity of Terminal 5 and would reduce air pollutant loads on communities that are disproportionately impacted by diesel pollution. T-5 is part of the Duwamish Manufacturing Industrial Center in Seattle, King County, WA. Based on the Washington Tracking Network's Diesel and Disproportionately Impacted Communities Index, the project location and surrounding Census blocks experience high levels of diesel pollution load and socioeconomic factors exacerbate these impacts. Specifically, the project location (Washington King County census tract 009900) scores a 9 (out of 10) on the index. Additionally, most census tracts in the Duwamish Valley area (the Georgetown and South Park neighborhoods), Beacon Hill, downtown Seattle, and South Downtown rank at 9s and 10s in the diesel and disproportionate impacts metric. Furthermore, King County is on the latest National Air Toxics Priority List, based on results of the 2014 National Air Toxics Assessment.

E. LEVERAGING FEDERAL FUNDING TO ATTRACT NON-FEDERAL SOURCES OF INVESTMENT

Since its inception in 2015, the NWSA has spent over \$500 million on container terminal improvement projects at the Seattle and Tacoma harbors. NWSA's tenants, including its partner at T-5, SSAT, committed \$100 million in private sector funds over the same period. The Terminal 5 Export, Expansion, and Emissions Reduction Project, with an additional \$26,289,500 in Project costs, is intended address current disruptions in export supply chains and provide both efficiencies and room for future growth. Adding gate capacity for export loads and increasing container yard acreage that can be used to support U.S. exporters will allow T-5 to handle more containers, in particular export containers, more reliably and efficiently, further encouraging trade and private investment at this U.S. seaport.

V. PROJECT READINESS

A. TECHNICAL CAPACITY

i. Experience and Understanding of Federal Requirements

The Project team has overseen the construction of more than \$500 million in NWSA improvements since the Ports of Seattle and Tacoma created the NWSA. That in-house capital program experience will oversee the Project.

The Project team has the requisite experience and understanding of federal requirements, from contracting to constructing, to ensure the project can be delivered on time and within budget. The Project team has already conducted environmental studies for the site as part of other nearby projects 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, or Clean Water Act. 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. Indeed, the Project team will soon begin issuing FAR-compliant bidding packages to enable this project to begin moving forward shortly after entering into contract with the Maritime Administration.

ii. Experience Working with Federal Agencies

The Project team has vast experience 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, Federal Emergency Management Administration, and the Federal Aviation Administration. 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.

iii. Experience with BUILD, INFRA and PIDP Awards

The NWSA has direct experience with PIDP, BUILD and TIGER grants that will be leveraged to help implement the Project in 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 consists 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. This work will be beginning soon as a part of the Phase 2 work of the Terminal 5 Modernization Program.

iv. Feasibility / Constructability

The Project team has many decades of experience in completing similar, as well as larger and more complex types of projects requiring planning, stakeholder outreach and coordination, preliminary and final design, environmental review and permitting, bidding, and construction.

Recent projects of comparable complexity include the Thorne Road Off-Dock Container Support Facility Project and the Terminal 5 Uplands Modernization and Rehabilitation Project.

v. Schedule

The Truck Gate Complex Component 1 of the Project is at 90% design and final design is scheduled for completion by December 2022. All other necessary permitting, approvals, final design, and construction will be completed by early 2025. Design and permitting for the Yard Expansion Component 2 of the Project will begin in early 2023. Construction for both Project Components will begin in early summer 2024 and be completed by the end of 2025. The following schedule conservatively assumes that a NEPA EA will be required. A NEPA Categorical Exclusion (CATEX) may be applicable and would streamline the process by a number of months. A request by NWSA to MARAD for early Release of Funds to support design would also minimize delays if an EA was required (see mitigation discussed in Table 3 below).

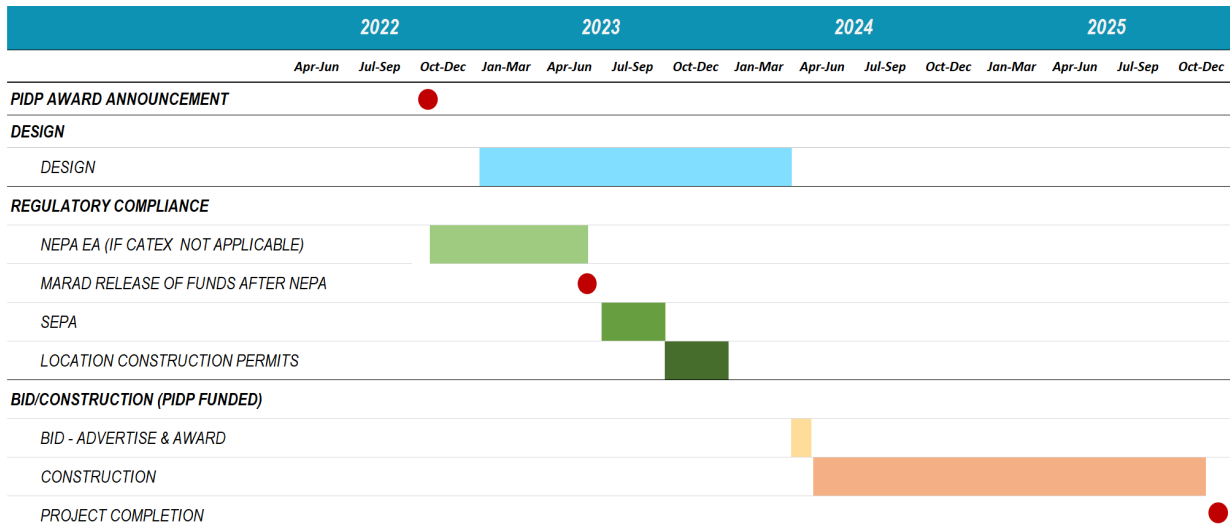


Figure 9: Schedule

B. ENVIRONMENTAL RISK

It is anticipated that a federal agency such as MARAD would serve as the lead agency for NEPA consultation. NEPA compliance could be coordinated and completed relatively quickly upon award. The Project occurs at an existing port terminal and involves upgrades to an existing paved terminal yard. No project elements occur in or near surface waters (marine or wetlands) or outside of the developed marine terminal property boundary. Federally protected species and habitat, historic buildings, and cultural resources are not anticipated given the heavy industrial nature of the site and limited extent of proposed construction activities. The Project may be suitable for a NEPA Categorical Exclusion or an Environmental Assessment (an Environmental Impact Statement [EIS] is not anticipated given the relatively limited nature of the proposed work).

In October 2016, the Port of Seattle and The Northwest Seaport Alliance completed an Environmental Impact Statement (EIS) in compliance with the Washington State Environmental Policy Act (SEPA) for the Terminal 5 Uplands Modernization and Rehabilitation Project, which is available here: <https://www.portseattle.org/environment/sepa-nepa>. This review can be referenced to support the proposed Project. The intent of the proposed T-5 Export, Expansion, and Emissions Reduction Project is to enhance operations on the current terminal and associated roadway. No new right-of-way will need to be acquired and the Project addresses asset management and operational improvements. If awarded the grant, the Port will coordinate with MARAD on the potential appropriate environmental review and documentation needs. The following Categorical Exclusions could be applicable to the proposed PIDP grant application elements (MAO 600-1, Appendix 1):

4. Reconstruction, modification, modernization, replacement, repair, and maintenance (including emergency replacement, repair, or maintenance) of equipment, facilities, or structures which do not change substantially the existing character of the equipment/facility/structure.
7. Project or program actions for which applicable environmental documentation has been prepared previously and environmental circumstances have not subsequently changed.

If a NEPA Environmental Assessment is deemed necessary by MARAD, the Port assumes the process will take between 6 to 12 months to complete (includes Section 106 and Section 7 compliance, MARAD review, and FONSI publication).

i. Environmental Permits and Reviews

The project team is familiar with the federal, state, and local permitting processes for this type of project. As described in the previous section, the NWSA has experience with NEPA. NWSA also has experience with the National Historic Preservation Act Section 106 concurrence, which will be required as part of NEPA review. A survey completed in support of the Terminal 5 Uplands Modernization and Rehabilitation Project indicated that there are no federal (or state/local) listed or eligible historic or cultural buildings, structures, or sites located within the project area or its immediate vicinity.

Terminal 5 is entirely paved, with no areas of terrestrial habitat. There is no proposed in-water construction; therefore, the project will not directly impact sensitive biological resources. Impacts to species protected under Section 7 of the Endangered Species Act are not anticipated.

Additional state and local environmental reviews and permits are described in the following section.

ii. State and Local Approvals

No project elements occur in or near surface waters (marine or wetlands) or outside of the developed marine terminal property boundary and anticipated permits are limited to the following.

State:

- Washington’s State Environmental Policy Act (SEPA): SEPA compliance is required for projects in Washington state to analyze the potential for environmental impacts from government decisions. October 2016, the Port of Seattle and The Northwest Seaport Alliance completed an EIS in compliance with the Washington State Environmental Policy Act (SEPA). Impacts from the proposed T-5 Project are considered in the Final EIS as part of the larger T-5 Program and SEPA review. Existing conditions and environmental laws, policies, and regulations have not changed in the intervening years.
- Washington State Department of Ecology National Pollutant Discharge Elimination System Construction Stormwater General Permit: A NPDES Construction Stormwater General Permit may be required for this project. This permit would be obtained closer to construction. The Project Team has extensive experience in obtaining this type of permit if deemed necessary.

Local:

City of Seattle Construction, Demolition, and Utility Permits – Final site development and/or construction permits (including utility permits) as well as demolition approval will be required. Applications will be supported by project drawings, and any required stormwater site plan reports and pollution prevention plans. It is anticipated that the emissions associated with construction will be negligible.

iii. Environmental Studies

The following additional studies could be required in support of the project permits and design (need will be determined during further design).

- Geotechnical Report – A geotechnical investigation and report may be required to characterize existing conditions at the site and inform criteria for infiltration design.
- Hazardous Materials Building Survey – A hazardous materials building survey may be required if structures to be demolished contain lead-based paint or asbestos containing materials. This survey may be required to support demolition approval.

C. RISK MITIGATION

The improvements proposed for the Project involve standard civil works construction within a design-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 3.

Table 3: Project Risks and Mitigation Strategies

Risk	Description	Impact / Probability	Mitigation
Federal Funding	\$17,035,900 shortfall	High / Moderate	PIDP grant
Hazmat/ Contamination	Unknown hazmat may be found during construction/excavation	High / Low	Early geotechnical exploration
Regulatory or contractual delays	Delayed construction start could add significant cost in current market environment	Moderate/ Moderate	Authorize NWSA expenditures to proceed with Final Design, Permitting, and NEPA immediately after grant award and to be considered part of the non-federal match.

VI. DOMESTIC PREFERENCE

NWSA is aware of the April 2022 OMB guidance on domestic preference and will comply with its policies and procedures.

The Project is designed to comply with the Build America, Buy America Act, particularly as NWSA seeks to support United States businesses as they recover from the recent tumult caused by the novel coronavirus (COVID-19).

For this PIDP application, the NWSA considered including zero and near-zero emission cargo handling equipment, with the terminal operator as co-applicant. However, we were unable to include this project component because procurement lead times for such equipment are 18-24 months and because manufacturers are unable to verify that individual components of American Made equipment meet Buy America requirements.

The NWSA is concerned that the Buy America program, in general, may be in conflict with the Administration’s decarbonization/climate goals. We encourage USDOT to adopt a position of flexibility with regard to waivers over the next few years to provide time for U.S. manufacturers to achieve the scale needed to meet the demand for zero-and near-zero emissions cargo handling equipment and make their production lines compliant with Buy America requirements.

VII. DETERMINATIONS

Project Determination	Guidance
<p><i>1. The project improves the safety, efficiency, or reliability of the movement of goods through a port or intermodal connection to the port.</i></p>	<p>The Project will reduce export truck time by an average of 15 minutes per trip. As a major U.S. agricultural export facility, the Project will save more than 1.8 million hours of export truck time over the 20-year analysis period. These efficiency benefits are quantified in the Benefit-Cost Analysis Report. The Project will also reduce import truck times and reduce the number of empty containers exported from NWSA facilities. These efficiency benefits were not quantified in the BCA, but likely will add substantial additional benefit to T-5, NWSA, and the larger domestic supply chain.</p>
<p><i>2. The project is cost effective.</i></p>	<p>The Terminal 5 Export, Expansion and Emission Reduction Project has a Benefit-to-Cost Ratio of 1.50. The results of the BCA are summarized in Table 2 of this Narrative and the attached Benefit-to-Cost Analysis Report and Model.</p>
<p><i>3. The eligible applicant has the authority to carry out the project.</i></p>	<p>The Northwest Seaport Alliance (NWSA) is a marine cargo operating partnership governed by the Port of Seattle and the Port of Tacoma as equal members, with each port acting through its elected commissioners. Both ports are port authorities under Washington State Law RCW 53.04.010, and as such are eligible to receive PIDP program funds.</p>
<p><i>4. The eligible applicant has sufficient funding available to meet the matching requirements.</i></p>	<p>Projects to secure additional commitment for Terminal 5's Phase II term lease and complete commercial negotiations relative to a Terminal 5 intermodal yard and other open leasehold issues are included as a priority in The NWSA Operating 2022 Budget and Five-Year Capital Improvement Plan. The NWSA Chief Executive Officer details the funding sources and their authorization in a letter attached to this grant application.</p>

Project Determination	Guidance
<p><i>5. The project will be completed without unreasonable delay.</i></p>	<p>The Truck Gate Complex Component 1 of the Project is at 90% design and is scheduled for completion by December 2022. All other necessary permitting, approvals, final design, and construction will be completed by January 2025 to allow PIDP funds to be obligated sufficiently in advance of the statutory deadline (September 30, 2025). The Yard Expansion Component 2 of the Project design, permitting, and approvals will begin in December 2022. Final design and construction will be completed by January 2025 to allow PIDP funds to be obligated sufficiently in advance of the statutory deadline (September 30, 2025).</p>
<p><i>6. The project cannot be easily and efficiently completed without Federal funding or financial assistance available to the project sponsor.</i></p>	<p>NWSA does not have resources to construct the T-5 Export, Expansion, and Emissions Reduction Project with existing resources. Without a PIDP grant, Project construction will be indefinitely delayed during this period of significant inflation. Such a delay will directly affect U.S. export farmers, producers, and manufacturers.</p>