PORT OF TACOMA

OFF-DOCK CONTAINER SUPPORT FACILITY PROJECT
CRITICAL AREAS PRESERVATION ORDINANCE ANALYSIS

Grette Associates LLC
ENVIRONMENTAL CONSULTANTS

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PREPARED FOR:

MOFFATT & NICHOL
600 UNIVERSITY STREET, SUITE 610
SEATTLE, WA 98101

PREPARED BY:

GRETTE ASSOCIATES LLC
2102 NORTH 30TH STREET, SUITE A
TACOMA, WASHINGTON 98403
(253) 573-9300

CHAD WALLIN
BIOLOGIST

JULY 2022
DATE

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ENVIRONMENTAL CONSULTANTS

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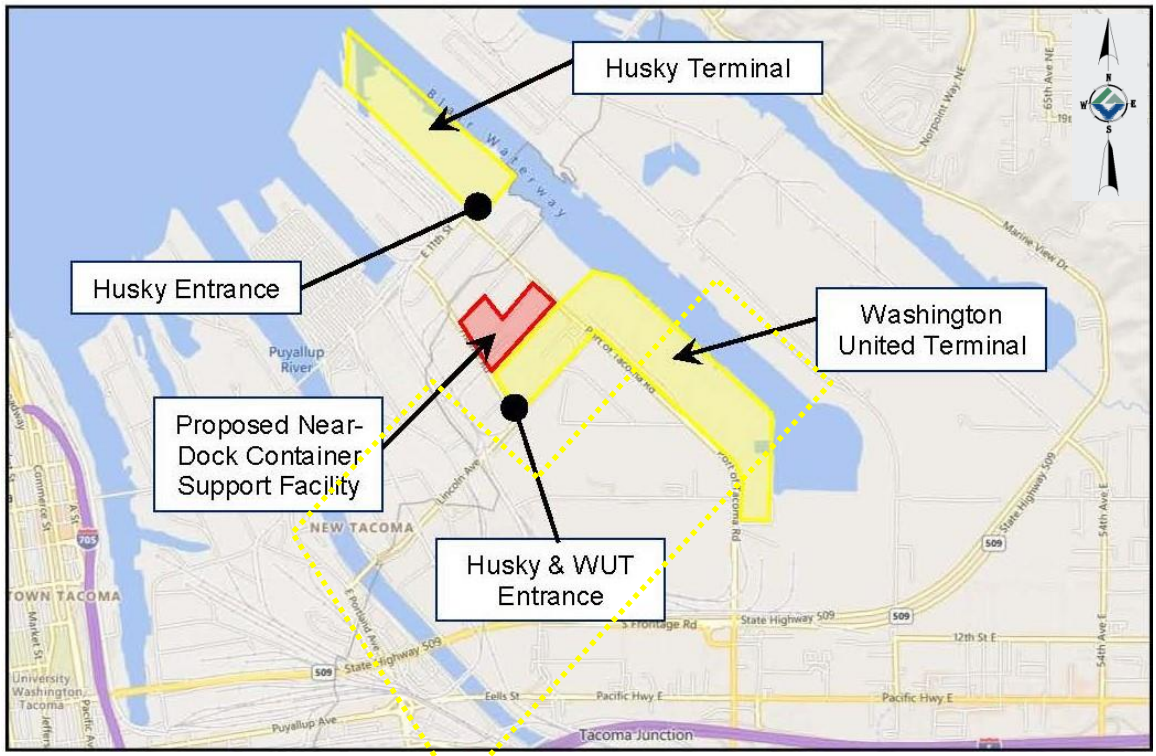
1 INTRODUCTION

Grette Associates, LLC is under contract with Moffatt & Nichol to prepare a Critical Areas Preservation Ordinance analysis (CAPO Analysis) to support the Port of Tacoma's (Port) Off-Dock Container Support Facility Project (Project) located north of the intersection of Thorne Road and Maxwell Way (Pierce County parcels 6965000350, 6965000380, 6965000390, and 6965000400) within the City of Tacoma (Figure 1).

Figure 1. Project Vicinity Map



[1] The Project site is shaded in red.

The purpose of this CAPO Analysis is to address the unavoidable wetland impacts associated with the proposed Project for conformance with Chapter 13.11 of the Tacoma Municipal Code (TMC) and the current version of *Wetland Mitigation in Washington State Part 1: Agency Policies and Guidance* (the "Joint Guidance"; Ecology, USACE, and EPA 2021).

2 PROJECT DESCRIPTION

2.1 Current Land Use and Existing Conditions

Historically, the Project site was part of the Commencement Bay Tideflats estuary ecosystem. The Project site was filled and developed beginning in the 1940s and structures were present on three of the four parcels from at least the early 1970s to 2011. The Project site primarily consisted of warehouse buildings, support building structures, and rail infrastructure. Areas that were not occupied by the referenced structures predominantly consisted of impervious surfaces (gravel lots, concrete pads, etc.).

In 2011, the Port completed demolition activities to remove the existing industrial buildings and structures, concrete surfaces, rail spurs, and miscellaneous debris within the Project

site[1]. After completion of these activities, the southern portion of the Project site consists of a large gravel and crushed asphalt parking area with stormwater management infrastructure[2] and is currently used primarily for cargo logistics including material and container storage, truck parking, and chassis and trailer parking (Figure 1). The remaining portion of the Project site consists of crushed gravel surfaces that are currently used for commercial purposes and an undeveloped wooded area (Figure 1).

The undeveloped wooded area situated within the central portion of the Project site is dominated by native early-successional deciduous trees with an understory of native and non-native species. As summarized below, the wooded area includes two forested wetland features.

2.2 Purpose Statement

International container ports up and down the West Coast, including the Port of Tacoma (Port), have become congested and therefore inefficient. These inefficiencies are contributing to increased cargo handling costs and excessive greenhouse gas emissions (GHG) and air quality impacts. The Purpose of the *Off-Dock Container Support Facility* project (Project) is to relieve congestion and improve marine container terminal capacity and efficiency at the Port of Tacoma in order to meet the public's need and demand for increased cargo movement. The proposed Project is to construct an off-dock container support facility of approximately 25 acres as close as practicably possible to the Husky and WUT entry gate, with a maximum distance of 1 mile, to help fulfill the Project Purpose and Need.

This Project is needed because existing Puget Sound Gateway Ports are operating above 80 percent capacity utilization[3]. This is causing inefficient operations and inefficient container handling, which is resulting in a ripple of supply chain impacts that include excessive truck queuing and idling, cargo ships waiting at anchor or offshore for available terminal berths, train backlogs, delayed cargo deliveries, and slowed or halted manufacturing. For example, as of April 2022, new data from Windward, a maritime artificial/predictive intelligence company, show that 20 percent of the global container fleet is stuck in port congestion[4].

In addition, inefficiency is both expensive and contributes to air quality and climate change impacts. Removing that inefficiency will have immediate positive impacts to air quality and a reduction in fuel consumption and greenhouse gas emissions. As part of the Port's and Northwest Seaport Alliance's (NWSA) emphasis on limiting its role in global warming

[1] City of Tacoma Permit Nos. 40000158807 and 40000158808.

[2] Demolition activities included stormwater improvements to address the City's post-demolition stormwater concerns (Sitts and Hill Engineering 2011).

[3] Capacity Utilization is the physical number of containers a facility can hold given its mode of operations. Above 80 percent capacity utilization, there is an inverse relationship between the number of containers on the terminal and the efficiency of the terminal. i.e., as capacity utilization goes up, efficiency goes down.

[4] Windward: Fifth of World's Containerships are Stuck in Port Congestion (Maritime Executive, 4/19/22).

and reducing greenhouse gas emissions, the Port is committed to improving the efficiency of cargo processing (terminal efficiency), both inbound and outbound. This includes the use of on-dock and off-dock rail to move containers, efficient access to nearby highway corridors, and maximizing terminal efficiency.

There are numerous sources of data documenting the need for this Project, including the Port's Strategic Plan[5], the NWSA's strategic business documents[6], the Northwest Ports Clear Air Strategy[7], Port operations data, the NWSA annual reports, industry news articles, and directives/fact sheets from the White House[8]. See Appendix A for documentation of Executive orders and Industry news.

Project Need Details

As summarized above, the problem is that international container ports up and down the West Coast, including the Port of Tacoma, have become congested and therefore inefficient. The Project need is to reduce congestion and improve marine container terminal capacity and efficiency within the Port of Tacoma in order to meet the public's need and demand for increased cargo movement. Additional evidence and details of the Project need are provided below.

Inefficient container terminals create bottlenecks throughout the supply chain with negative repercussions; ships at anchor across Puget Sound and idling off the coast waiting for berth space, exports sitting on docks for weeks or longer, North American manufacturing slowing or even halting altogether[9], and reduced inventory on retailers' shelves. As of April 2022, new data from Windward[2], the maritime artificial/predictive intelligence company, show that 20 percent of the global container fleet is stuck in port congestion. This has all helped drive inflation to a four-decade high.

When a terminal is above 80 percent capacity utilization, there is an inverse relationship between the number of containers on the facility and the productivity/efficiency of the terminal (marine container terminal capacity and efficiency). Once capacity utilization is above 80 percent, as more containers are added to the terminal, movement of those containers through the facility (production utilization) greatly slows. This is particularly true in the Puget Sound Gateway (ports of Seattle and Tacoma). Washington United Terminals (WUT), which is located immediately adjacent to the proposed off-dock container support facility, is currently operating at 94 percent capacity utilization; during the height of the Fall peak season in 2021, WUT operated at over 100 percent capacity utilization. Another measure of terminal efficiency is truck turn time—how long it takes a

5 https://www.portoftacoma.com/planning/2021-2026-strategic-plan
6 Currently Federal Maritime Commission (FMC) confidential documents.
7 Northwest Ports Clean Air Strategy | Northwest Seaport - Port of Tacoma (nwseaportalliance.com)
8 The Biden Administration has many on-going initiatives, an executive order, Ocean Shipping Reform Act of 2022, and a bipartisan Infrastructure Deal to improve the national supply chain including providing over $15 million to the Port of Tacoma to provide this off dock container facility.
9 North American auto makers and other manufacturers have had numerous production shutdowns during 2021 and early 2022 due to a lack of imported parts and materials.

truck to enter then exit a terminal. WUT's turn time is 20 percent slower than the gateway average and 30-100 percent slower than similar facilities in Seattle.

With help from the Biden Administration[6], West Coast ports are working hard to improve the marine container terminal capacity and efficiency part of the supply chain. In addition, the Washington state legislature is also supporting this effort with funding for this off-dock container support facility. Ports are investing in labor, equipment, and land to work to improve terminal capacity and efficiency. While more labor and improved equipment can help with the production utilization/efficiency of a facility, it takes land to make it work. The largest and best trained labor force with the best equipment will still struggle if it is buried in containers.

West Coast ports, and particularly the Port of Tacoma, need more land in the form of off-dock container facilities to relieve congestion at terminals and increase capacity and efficiency. Although more on-dock space at terminals would be best, the Port of Tacoma's existing international container terminals have already fully utilized available on-dock space. The terminals are confined by adjacent properties that are already being used for port logistics or by transportation networks (i.e., roads and rail). An example of this is the Husky Terminal (Husky), which in 2019 re-purposed area from an adjacent terminal (Terminal 7) to expand the on-dock space by 21 acres. Even with this additional on-dock space, there is a need for more; however, the terminal is confined by surrounding port logistic uses, transportation networks (rail, 11th Street, Port of Tacoma Road), and Puget Sound.

WUT is confined by the U.S. Oil marine transfer station and dock, Erdahl Ditch/Pierce County Terminal, Port of Tacoma Road, and the Blair Waterway/Puget Sound. With the port's on-dock/adjacent space already maxed out, there is no land available to further expand existing international terminals on-dock capacity. The next best option is to increase the off-dock capacity, and the closer to container terminals, the better; to improve marine container terminal capacity and efficiency and decrease the environmental impacts of traffic and associated emissions. Consolidating container and chassis storage and processing, container and chassis repair, container wash-down, preparation of refrigerated containers, and administrative support functions in a off-dock area outside of the main terminals will free up more on-dock area for terminal operations and cargo mobility and logistics which will improve terminal capacity and efficiency.

An example of this intense land pressure can be seen at WUT and Husky in Tacoma (see Figure 1). Another example of the congestion within Port of Tacoma terminals is that during the Fall peak season in 2021, terminals were stacking containers on their facility in areas not meant for container storage, including rail tracks, alleys, and areas normally used for terminal operations. One terminal resorted to stacking containers on the dock fronting a berth area thus eliminating an operating berth from the terminal just to increase capacity, at the expense of terminal efficiency. The use of limited on-dock space for the aforementioned reasons reduces the processing and operational space for both inbound and outbound containers on the terminals. This on-dock congestion creates a bottleneck for port operations and logistics, preventing import containers from efficiently accessing the external highway and rail network, prevents export containers from entering the terminals efficiently, and makes unprocessed empty containers and chassis unavailable to serve regional agricultural and cargo exports.

Ports across the West Coast experience an annual peak season from mid-summer through the end of the year. Back-to-school and holiday imports and the annual surge in agricultural exports account for the seasonal increases in cargo. Further, due to unprecedented high demand for retail imports since mid-2020, the entire supply chain has been stressed or disrupted, resulting in increased economic and trade stressors in many locations. Improving marine container terminal capacity and efficiency is a critical public need and a high priority for the current Biden Administration[6]. Action is needed to reduce ship, terminal, rail, and road congestion and to address the ripple effects shipping and terminal logistics issues have on the rest of the supply chain. Given the container throughput problems up and down the West Coast, these types of off-dock container support facilities are now seen as a critical infrastructure public need to help improve container port operations and the efficiency of the supply chain.

This critical need is further demonstrated by the fact that even after recent on-dock and off-dock improvements such as the Husky Terminal 7 expansion, West Hylebos Terminal container support facility, Husky and WUT entry gate, and the PCT entry gate there is still a need for more. Husky expanded its on-dock capacity by incorporating 21 acres of Terminal 7 in 2019. An off-dock container support facility was opened at the Port of Tacoma's West Hylebos Terminal in 2021, adding approximately 12 acres of additional off-dock space[10]. In 2012, and a 2020 upgrade, approximately 18.5 acres were improved as a combined entry gate for Husky and WUT, and approximately 10 acres in 2016 were improved as an entry gate for Pierce County Terminal (PCT), both entry gate facilities were designed to queue trucks/containers and improve container processing. With all these additional off-dock and process improvement facilities being utilized to their maximum extent there is still a critical public need for additional off-dock space for container and chassis management and processing at the Port of Tacoma.

Besides impacts to the cargo supply, inefficient terminal operations and their impacts to the supply chain logistics create unnecessarily high carbon footprints. This starts with ships at anchor running generators, or others idling off the coast both waiting for berth space burning fuel that would not have been burned if they could come straight into the dock. Double, triple, or more handling of containers on terminals burns fuel in yard equipment that would otherwise not be burnt under efficient terminal operations. Trucks idling in long lines and dealing with congested terminals also burn more fuel than if turn times were low and the trucks were kept moving. Inefficiency is both expensive and has negative air quality and climatic impacts. Removing that inefficiency has immediate positive impacts to air quality and a reduction in fuel consumption and greenhouse gas emissions.

The Northwest Ports Clean Air Strategy is a collaborative effort among the Port of Tacoma, Port of Seattle, NWSA, and Vancouver Fraser Port Authority in British Columbia (Northwest Ports) that sets a vision to phase out emissions from seaport-related activities throughout the Georgia Basin-Puget Sound airshed by 2050. This clean air and climate strategy committed to initial targets of 50% and 80% reductions in air and greenhouse gas emissions from Tacoma, Seattle, and Vancouver, B.C. seaports by 2030 and 2050,

[10] This location is near the Pierce County Terminal and provides off-dock space to all three international container terminals (Husky, WUT, and PCT).

respectively. The Northwest Ports Clean Air Strategy was recently updated, with a goal of port-wide carbon neutrality by 2050.

As part of the Port's and NWSA's emphasis on limiting its role in global warming and reducing greenhouse gas emissions, the port is committed to improving the efficiency of cargo processing (terminal efficiency), both inbound and outbound. This includes the use of on-dock and off-dock rail to move containers, efficient access to nearby highway corridors, and maximizing terminal efficiency.

Improving marine container terminal capacity and efficiency by adding off-dock container support facilities will decrease truck queuing and idling time, reduce inefficient container handling, reduce the time cargo ships spend waiting at anchor or offshore for available terminal berths, and minimize train backlogs, keeping this equipment moving and reducing unnecessary greenhouse gas emissions.

Basic Project Purpose and Water Dependency

The basic Project purpose is to relieve congestion and improve marine container terminal capacity and efficiency at the Port of Tacoma in order to meet the public's need and demand for increased cargo movement.

For the purposes of the Alternatives Analysis, the Project is considered water-dependent as it is directly tied to loading cargo ships on the Blair Waterway, the Project requires access to, and close proximity to, the Blair Waterway, and but for the confined nature of the terminals (by existing port logistic properties or transportation networks [Port of Tacoma Road]), this activity would be occurring on-dock and immediately adjacent to the water. This Project is a critical component of the water-dependent activity of shipping at the Port of Tacoma's international container terminals.

Overall Project Purpose and Geographic Area

The overall Project purpose is to construct a off-dock container support facility of approximately 25 acres of contiguous area as close as practicably possible to the Husky and WUT entry gate, with a maximum distance of 1 mile, to relieve congestion and improve marine container terminal capacity and efficiency within the Port of Tacoma to meet the public's need and demand for increased cargo movement. Contiguous area refers to the amount of land (one or more tax parcels) the Port can practicably assemble, regardless of ownership, that isn't already being used substantially for Port logistics or major infrastructure/manufacturing or habitat conservation activities supporting the public need, and that are confined within existing right-of-way (except one crossing of a low volume railroad track is considered acceptable within the Project area).

As supporting information, WUT alone requires at least an additional 25 acres to improve marine container terminal capacity and efficiency (e.g., operate at or below the 80% capacity utilization). Other Port of Tacoma terminals need similar additional space.

Although more on-dock space at terminals would be the best way to improve terminal capacity and efficiency, the Port's existing international terminals are already maxed out for on-dock/adjacent space and are confined by adjacent properties that are already used for port logistics or by transportations networks (roads and rail) as previously detailed. With the Port's on-dock/adjacent space already maxed out, there is no availability to further expand existing international terminals on-dock. The next best option is to increase the off-dock capacity, and the closer the better to increase cargo/terminal efficiency and decrease environmental impacts. The off-dock sites intercept truck trips that would otherwise go directly to an over-capacity terminal; therefore, the off-dock facility would increase terminal capacity without negatively changing traffic patterns and off-terminal impacts. The farther away a off-dock container facility is, the less cargo/terminal efficiency[11] is improved and the more other environmental effects increase (such as traffic/congestion, fuel consumption, and emissions); therefore, the geographic area considered for siting this facility is as close as possible to the Husky and WUT entry gate with a maximum distance of one mile.

2.3 Proposed Project

The proposed Project will develop the site into a fully functioning off-dock container yard to use for empty container and chassis storage, a single-high reefer pre-trip wash facility, and a wheeled reefer valet drop-off location, with the ability to also process fully laden containers. Other site features will include a truck entry and exit gate on Maxwell Way with a guard shelter, two emergency access gates on Thorne Road, an office trailer, perimeter security fencing, site lighting and power, security cameras, a railroad crossing, a roadability-testing area, and stormwater improvements.

Proposed work includes clearing and grubbing, earthen fill, isolated excavation, site-wide grading, subgrade preparation, base course and pavement systems, stormwater infrastructure, and other utilities.

*2.3.1 **Project Components***

2.3.1.1 Site Preparation and Grading

Installation of temporary erosion and sediment control measures will occur prior to demolition of existing security fencing and gates as well as removal of old pavement (as needed). Once demolition activities are complete, the site will be cleared and grubbed, and all unsuitable materials will be removed and disposed of at an approved off-site location.

Once the demolition and clearing are complete, grading and fill activities will occur to establish design elevations in preparation of pavement, utilities, and stormwater infrastructure.

2.3.1.2 Stormwater Management

Stormwater from the Project site will be managed and treated through an at-grade media filtration system. Stormwater will sheet flow across the site to biofiltration media trenches

[11] Cargo/terminal efficiency is also affected by container drayage which is the distance transporting containers between the terminals to off dock facilities. Drayage is often roundtrip.

(BMT) that will be constructed along the perimeter of the Project site. These BMTs will collect, treat, and convey stormwater to be discharged at a reduced flow rate into the City of Tacoma stormwater system.

2.3.1.3 Structures

A 12-foot by 40-foot trailer will be located in the east corner of the Project site, near the main entrance/exit gate for office and breakroom space. Power, communications, water, and sanitary utilities will be provided to the trailer. A guard shelter will also be located at the site entrance/exit gate off Maxwell Way to provide site security. A 40-foot by 48-foot Quonset Hut style structure is anticipated to support more significant chassis repairs that cannot be performed in the roadability lanes.

Please refer to the submitted JARPA (dated October 8, 2021) for complete application information for this Project, as well as a full project description.

3 CRITICAL AREAS ASSESSMENT SUMMARY

In summary of the Wetland Analysis Report (Grette Associates 2021) that was prepared in support of the Project, there are two wetland features (Wetland A and Wetland B) situated within the Project site (Appendix B). These wetland features are rated as Category III wetlands (Table 1).

Wetlands A and B were delineated according to the U.S. Army Corps of Engineers (USACE) *Federal Wetland Delineation Manual* (1987), and the USACE's *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0)* (2010) and rated according to Chapter 13.11 of the TMC and the Washington State Department of Ecology's (Ecology) *Washington State Wetland Rating System for Western WA – 2014 Update* (Hruby 2014).

As summarized in the Wetland Analysis Report (Grette Associates 2021), no fish and wildlife habitat areas (FWHCAs), including biodiversity areas and corridors, occur on or within 300 feet of the Project site. Please refer to the Wetland Analysis Report (Grette Associates 2021) for more detail.

Table 1. Wetland delineation summary

Wetland	Size (Approximate)	Cowardin Class[1]	Hydrology Modifier	HGM Class	Wetland Category	Buffer Width[2]
A	73,258 sq. ft. (1.68 acres)	PFO	Seasonally Flooded and Saturated	Depressional	III	75 ft.
B	119,289 sq. ft. (2.74 acres)	PFO	Seasonally Flooded and Saturated	Depressional	III	75 ft.

[1] Classification based on Cowardin et al. (1979).
[2] Buffers are based on TMC 13.11.320.

4 REGULATORY CONSIDERATIONS

4.1 Overview

Critical areas (e.g., wetlands) are regulated by agencies at the local, state, and federal levels.

4.1.1 Local Regulations

At the local level, critical areas and their associated buffers that are situated on or within 200 feet of the ordinary high-water mark (OHWM) of *Shorelines of the State* are regulated under the City of Tacoma's (City) Shoreline Master Program (SMP), while the critical areas and their associated buffers that are not subject to the City's SMP are regulated by the City's CAPO (Title Chapter 13.11 of the TMC). The wetlands located within the Project site are not located within 200 feet of a *Shoreline of the State* and are therefore regulated under the City's CAPO.

4.1.2 State Regulations

At the state level, Ecology has the authority to regulate wetlands under the Water Pollution Control Act, the Shoreline Management Act, and through the federal Clean Water Act (Section 401). Ecology also is the responsible authority to ensure the Project is consistent with the federal Coastal Zone Management (CZM) program. Since the Project site is located in Pierce County which is listed as one of 15 coastal counties that fall under this program, consistency with the CZM program is also necessary. The requirement for a Water Quality Certification and CZM certification from Ecology is triggered by applying for a federal Clean Water Act Section 404 permit from the USACE (detailed below). Ecology may also issue an Administrative Order, exercising wetland regulatory authority without a federal nexus. The wetlands will be regulated under Section 401 as discussed in further detail below under Federal Regulations. The Port applied for a Section 401 and CZM as part of the USACE Section 404 permit application in October and November 2021, respectively.

Washington Department of Fish and Wildlife (WDFW) has the authority to issue Hydraulic Project Approvals (HPA) to ensure work that is performed in fresh or marine waters below the OHWM is done in a manner that protects fish and their aquatic habitat (WAC 220-660). The Project site's wetlands are isolated from fish habitat; therefore, no HPA is required.

4.1.3 Federal Regulations

At the federal level, the Environmental Protection Agency (EPA) regulates impacts to *Waters of the US* (WOTUS) (specifically dredging or filling) through the USACE. The USACE administers the federal Clean Water Act (Section 404) for projects involving

dredging or filling in WOTUS (e.g., lakes, streams, marine waters, and most non-isolated wetlands). During this process, a proposed project is reviewed by National Marine Fisheries Service (NMFS) and U.S. Fish and Wildlife Service (USFWS), collectively known as the Services, for Endangered Species Act (ESA) compliance. This is to ensure that no federal agency will authorize work that would jeopardize the ongoing existence of an ESA-listed species or their critical habitat.

Several wetland delineations have been conducted at the Project site within the past 20 years. Previous coordination with the USACE regarding the status of the Wetland A and Wetland B concluded that these features are not remnant estuary wetland features and that they developed over time on upland fill during the development of the tide flats; however, these wetland features were determined to have a significant nexus to a traditional navigable water (TNW) and were therefore considered WOTUS (Reference No. NWS-2008-83-WRD). A subsequent wetland delineation was conducted in 2020 (Grette Associates 2021) because more than five years has passed since the previous wetland delineation, which was conducted in 2012-2013. USACE issued a jurisdictional determination in April 2022. The USACE concurred with the wetland delineation and the conclusion that the wetlands are considered WOTUS. Therefore, the Port applied for permits under the CWA.

4.2 Regulatory Summary

The proposed Project is required to meet the requirements set forth in the City's CAPO, Ecology's Section 401 WQC and CZM, and USACE's Section 404 under the CWA. The Port submitted permit applications to these agencies in October 2021.

4.3 Responsible Parties

Project Proponent:

Port of Tacoma
Mark Rettmann, Environmental Project Manager
PO Box 1837
Tacoma, WA
253-592-6716

Report Preparer:

Grette Associates, LLC
Chad Wallin, Biologist
2102 N. 30th Street, Ste A
Tacoma, WA 98403
253-573-9300

5 PERMIT APPLICATIONS

5.1 Local

The Port is applying for a CAPO Development Permit.

5.1.1 TMC 13.11.220 – Application Types

This CAPO Analysis and supporting documentation has been prepared to meet the requirements of TMC 13.11.220(B)(3) (Development Permit) which states:

- *A decision will be issued where, the Director determines that avoidance and minimization have not eliminated all impacts and compensatory mitigation will be required as a result of the proposal.*

  a. The applicant must meet the requirements of one of three legal tests; No Practicable Alternatives, Public Interest or Reasonable Use, and

b. Demonstrate Mitigation Sequencing, and

c. Provide mitigation as required in accordance with this Chapter.

5.1.2 TMC 13.11.230 – Application Submittal Requirements

TMC 13.11.230(B) lists required items for permit review and approval. The following lists the requirements along with where the information is located.

1. A Joint Aquatic Resource Permit Application (JARPA) and Vicinity Map: See the JARPA dated October 8, 2021, and the JARPA permit application drawings October 22, 2021.
2. Surveyed Site Plan: See the JARPA permit application drawings October 22, 2021, and the Wetland Analysis Report (Grette Associates 2021).
3. Critical Areas Report: See the Wetland Analysis Report (Grette Associates 2021)
4. Compensatory Mitigation Plan: See the Lower Wapato Creek Habitat Project Advance Mitigation Plan (Port of Tacoma 2021a), Lower Wapato Creek Advance Mitigation Site Use Plan for Port of Tacoma's Off-Dock Container Support Facility (Port of Tacoma 2021b), Alternatives Analysis (Grette Associates 2022a), and this CAPO Analysis.

5.2 State and Federal

The Port applied for the USACE jurisdictional determination in June 2020, the USACE Section 404/Ecology Section 401 permits in October 2021, and submitted the CZM consistency form in November 2021. The Letter Request for USACE No Effects Determination for Endangered Species Act and Essential Fish Habitat under the Magnuson-Stevens Fishery and Conservation Act (Grette Associates 2022c) was submitted to the USACE in January 2022.

6 COMPENSATORY MITIGATION PLAN

The City requires a compensatory mitigation plan for unavoidable permanent impacts to critical areas and their buffers/management areas (TMC 13.11.230(B)(4)(a-n)). The compensatory mitigation plan must include the following criteria:

- Legal test
- Mitigation sequencing
- Assessment of impacts
- Amount and type of mitigation
- Existing and future conditions for the proposed mitigation
- Mitigation design
- Plant schedule
- Monitoring methods
- Maintenance schedule
- Hydrologic report
- Anticipated hydrogeomorphic class

- Topography
- Bond estimate
- Evaluation of potential adverse impacts on adjacent property owners from the proposed mitigation

The Project was designed and configured using mitigation sequencing (TMC 13.11.270(F)), Alternatives Analysis Framework (USACE 2016), and the current version of the Wetland Mitigation in Washington State, Part 1: Agency Policies and Guidance, hereafter referred to as the Joint Guidance (Ecology, USACE, and EPA 2021). To meet the City's requirements under the CAPO, the following sections demonstrate the Port's mitigation approach for the Project. Additional detail on the City's required Compensatory Mitigation Plan components can be found in the Lower Wapato Creek Habitat Project Advance Mitigation Plan (Port of Tacoma 2021a) and the Lower Wapato Creek Advance Mitigation Site Use Plan for Port of Tacoma's Off-Dock Container Support Facility (Port of Tacoma 2021b).

6.1 Legal Test

Per TMC 13.11.240(B)(3)(a), the Project "*…applicant must meet the requirements of one of three legal tests; No Practicable Alternatives, Public Interest or Reasonable Use…"*. The Project satisfies both the No Practicable Alternatives and the Public Interest legal tests.

6.1.1 No Practicable Alternatives

The Project satisfies the "No Practicable Alternative" legal test. An alternative is considered practicable if the site is available and the project is capable of being done after taking into consideration cost, technology, infrastructure, and logistics in light of overall project purposes (TMC 13.11.240(A)). No practicable alternatives need to be considered if the criteria (shown in italic) are met.

1. The project cannot be reasonably accomplished using one or more other sites in the general region that would avoid or result in less adverse impacts to the Critical Area;

The Project cannot be reasonably accomplished by using one or more other sites and still achieve the Project goals defined in the purpose and need. There are no other available alternative locations in close enough proximity to the site that meet the Project goals. As discussed in Section 2 above, the Port has already attempted to avoid this Project location by conducting similar on-dock and off-dock improvements at other locations such as the Husky Terminal 7 expansion, West Hylebos Terminal container support facility, Husky and WUT entry gate, and the PCT entry gate. See Alternative Analysis report for additional detail on selection criteria and analysis of on-site and off-site alternatives (Grette Associates 2022a).

2. The goals of the project cannot be accomplished by a reduction in the size, scope, configuration or density as proposed, or by changing the design of the project in a way that would avoid or result in fewer adverse effects on the Critical Area;

The Project has already been consolidated into the absolute minimum size, scope, and configuration possible to meet the goals (purpose and need) of the Project and operate a off-dock container support facility efficiently, effectively, and safely. The Project cannot

be further densified, as it is already designed for the maximum capacity that can be safely achieved for its size while still meeting the goals of the project. Attempting to avoid and minimize the wetlands would divide the site into small, discrete spaces that do not meet the goals of the Project.

3. In cases where the applicant has rejected alternatives to the project as proposed, due to constraints on the site such as inadequate zoning, infrastructure or parcel size, the applicant has attempted to remove or accommodate such constraints, unless the applicant can demonstrate that such attempt would be futile.

The site is not constrained by zoning or on-site infrastructure. The site is currently zoned as Port Maritime Industrial (PMI) with a land use designation of Heavy Industrial, both of which are consistent with the Project. Buildings previously located onsite have been removed. The existing rail and the wetlands are the only on-site constraints. The Project can accommodate the rail constraint by placing a crossing over the tracks. There is no feasible design alternative for the site that would avoid wetland impacts (see above). Expanding or moving the Project site to avoid the critical areas is not feasible due to off-site constraints such as road rights-of-way that cannot be reasonably vacated and property the Port does not own. The Port cannot purchase adjacent parcels that are not for sale to avoid or minimize wetland impacts. In addition, the cost of acquiring adjacent property, including costs for land acquisition, relocating business(es), demolition and site preparation, environmental investigation, and potential cleanup costs would further make expansion of the site not practicable. See the Alternative Analysis report for additional details on selection criteria and analysis of on-site and off-site alternatives (Grette Associates 2022a).

*6.1.2 **Public Interest***

The Project also satisfies the "Public Interest" legal test. The proposal is in the public interest if its benefit to the public exceeds its detrimental impact on the Critical Area (TMC 13.11.240(C)). The Project must be evaluated to determine whether it is in the public interest with the following criteria (shown in italic).

1. The extent of the public need and benefit;

The Project is of critical importance to the public need and benefit. West Coast ports are congested. These ports experience an annual peak season from mid-summer through the end of the year. Back-to-school and holiday imports and the annual surge in agricultural exports account for the seasonal increase in cargo. Further, due to a surge in retail imports since mid-2020 the entire supply chain has been stressed or disrupted, resulting in increased economic and trade problems. This has stymied North American manufacturing, left shelves bare and helped create the highest levels of inflation in 40 years. Improving container terminal efficiency is a critical public need, and a high priority of the current Administration.

The Project will help alleviate some of these impacts because it will improve marine cargo container terminal efficiencies (capacity utilization, production utilization, turn time), truck traffic, and the cascading effects they have on the rest of the supply chain. The demand for import products is not decreasing, which in turn creates the demand for more marine cargo

capacity to accommodate the public need. Refer to Section 2.2 for more detail regarding the public need for the Project.

2. The extent and permanence of the beneficial or detrimental effects of the use or activity;

The impacts to the Critical Areas will be permanent; however, the Project will benefit the marine cargo supply chain in Tacoma for the foreseeable future as long as the property is used for Port logistics and the mitigation for the impacts will be in-perpetuity. The Port has been moving cargo for over 100 years and is a permanent feature in Tacoma. As populations in the region increase, so does the demand for international trade. The Project will help keep the Port competitive and thriving, which provides thousands of jobs to the region.

3. The quality and quantity of the Critical Area that may be affected;

The Critical Areas consist of two degraded Category III isolated freshwater wetlands, with a combined acreage of approximately 4.42 acres. The wetlands were formed on top of fill material that was placed in the early- to mid-1900s. Vegetation consists primarily of black cottonwood trees (*Populus balsamifera*) with an understory of a mix of native and non-native species. The wetlands do not provide fish habitat or connect to a biodiversity corridor. They are not located within a functioning floodplain and the wetland buffers are extremely limited to nonexistent. Refer to Wetland Analysis Report (Grette 2021).

4. The economic or other value of the use or activity to the general area and public;

The Port of Tacoma and the Port of Seattle formed The Northwest Seaport Alliance (NWSA) in 2015 to unify management of marine cargo facilities and strengthen the competitiveness of the Puget Sound gateway to attract more marine cargo and related jobs. The NWSA is one of the largest marine cargo gateways in North America. Marine cargo operations through the NWSA provide significant jobs and revenue to Washington state, where 40% of jobs are tied to trade. Based on a 2019 marine economic impact study (Community Attributes, Inc., 2019) utilizing 2017 data (most recent data available for the study), the NWSA imported or exported $75.3 billion worth of cargo—27.6 million metric tons—to and from 166 countries. The total 2017 Washington State tax contribution of the NWSA was $136 million which helps support local and state finances. The NWSA supported 58,400 jobs across Washington State, including 20,100 direct jobs, 14,700 supplier jobs, and 23,600 other jobs. The NWSA serves as one of only three U.S. West Coast container gateway seaports and is the closest U.S. gateway to north Asia. Exports from NWSA harbors touch virtually every corner of the globe and help sustain jobs in Pierce County and throughout the state. The Project will help the NWSA remain competitive by moving cargo more efficiently and effectively through the gateway while supporting trade, jobs, tax revenue, and Washington's economy.

5. The ecological value of the Critical Area;

The wetlands on the Project site have very limited ecological value. The wetlands are effectively isolated because they are situated in the middle of a large industrial area and have no direct connection to any other undeveloped areas in the vicinity or to Puget Sound. Based on the Wetland Rating System for Western Washington – 2014 Update, both wetlands are low-scoring Category III wetlands. They provide moderate water quality and

hydrologic functions, and low habitat value. Due to their isolation, their ecological value is limited to the immediate vicinity, and they provide little to no benefit to the larger ecosystem in the watershed.

All critical area functions will be mitigated nearby at an offsite location and protected in perpetuity. Functions will be mitigated for equal to or better than the functions being impacted with the added benefit of floodplain connection, estuary, riverine, and fish habitat. See the Lower Wapato Creek Habitat Project Advance Mitigation Plan (Port of Tacoma 2021a) and the Lower Wapato Creek Advance Mitigation Site Use Plan for Port of Tacoma's Off-Dock Container Support Facility (Port of Tacoma 2021b) for additional details.

6. Probable impact on public health and safety, fish, plants, and wildlife; and

Public health and safety will improve slightly as a result of the Project. The off-dock container facility will provide additional storage which in turn reduces the amount of congestion on the terminals and at the terminal gates, which will reduce safety risks and idling (greenhouse gas emissions) associated with that congestion. In addition, because the off-dock container facility is located adjacent to the terminals, it limits the distance drayage trucks will have to drive between the terminals and the facility, thus reducing the potential for traffic incidents and reduces greenhouse gas emissions. The further away a off-dock container yard is, the more potential there is for traffic incidents, traffic congestion, and increased greenhouse gas emissions (from traffic congestion and increased drayage distances) to occur. Removing the wetlands from the Project area will have a negligible impact on public health, because the water quality and hydrologic functions the wetlands provide will be offset by the enhanced stormwater treatment system that will be installed for the Project.

The habitat value of the wetlands is extremely low. The Project will have no impact on fish as there is no direct connection to fish habitat. The plants located within the wetlands are early-successional tree species and a mix of native and non-native understory plants. The non-native species consist of noxious and/or invasive plants such as Himalayan blackberry (*Rubus armeniacus*). The low species composition within the wetlands do not provide the habitat complexity or diversity that many wildlife species rely upon for foraging or shelter. Due to their isolation from other undeveloped areas and/or habitat sites, the wetlands do not provide a direct connection to biodiversity corridors and the surrounding development acts as a barrier to migration and dispersion for terrestrial species. High density roads put wildlife at risk for getting hit and/or killed if they attempt to disperse to/from the wetlands. The wetlands are limited to providing habitat to small mammals (e.g., rodents) and bird species. The birds that may be displaced by removal of the wetlands can easily disperse to sites with much higher habitat value and better nesting potential.

All critical area functions will be mitigated nearby at an offsite location and protected in perpetuity. Functions will be mitigated for equal to or better than the functions being impacted with the added benefit of floodplain connection, estuary, riverine, and fish habitat. See the Lower Wapato Creek Habitat Project Advance Mitigation Plan (Port of Tacoma 2021a) and the Lower Wapato Creek Advance Mitigation Site Use Plan for Port

of Tacoma's Off-Dock Container Support Facility (Port of Tacoma 2021b) for additional details.

7. The policies of the Comprehensive Plan.

The Project is consistent with and supports the City of Tacoma's One Tacoma: Comprehensive Plan. The Tacoma Tideflats area is regionally and locally recognized as an important industrial center, and in 2002, the Puget Sound Regional Council (PSRC) designated the Tacoma Tideflats as a regional Manufacturing/Industrial Center (MIC). Consistent with this regional MIC designation, the Growth Strategy and Development Concept Element within the City's Comprehensive Plan designates the Port Industrial Area as a MIC, defining it as an area of high intensity development, high activity patterns, and high traffic generation. The Project area is included in this MIC-designated area.

On July 22, 2014, the Tacoma City Council adopted Chapter 10 – Container Port Core Policy Element of the One Tacoma: Comprehensive Plan. The Project is consistent with the City's One Tacoma: Comprehensive Plan by specifically advancing the following Container Port goals:

- GOAL CP-1 Identify the core port and port-related container industrial area and protect the long-term function and viability of this area.
- GOAL CP-3 Promote the continued growth and vitality of port and port-related industrial activity.
- GOAL CP-5 Provide, protect and preserve the capital facilities and essential public services needed to support activities within and beyond the Core Area.
- GOAL CP-6 Identify, protect and preserve the transportation infrastructure and services needed for efficient multimodal movement of goods within and between the Core Area, Industrial/Commercial Buffer Area, and the regional transportation system.

6.2 Mitigation Sequencing

. The Washington State Environmental Policy Act (SEPA) and the federal National Environmental Policy Act (NEPA) require the same sequence of actions to be taken for proposals with environmental impacts, including impacts to wetlands (Ecology, USACE, and EPA 2021). Mitigation sequencing is when an alteration to a critical area or its buffer/management area/geo-setback is proposed, such alteration shall be avoided, minimized, or compensated for in an order of preference. The Project must demonstrate how it adheres to the mitigation sequencing requirements defined TMC 13.11.270(F) (shown in italic) and the Joint Guidance.

1. Avoiding the impact altogether by not taking a certain action or parts of an action.

The Project cannot be accomplished through avoidance. No practicable alternatives exist which would completely or partially avoid wetland impacts and still meet the goals (purpose and need) of the Project. Refer to Section 6.1 for No Practicable Alternatives legal test and the Alternative Analysis Report (Grette Associates 2022c) for additional detail.

2. Minimizing impacts by limiting the degree or magnitude of the action and its implementation, by using appropriate technology, or by taking affirmative steps to avoid or reduce impacts.

Similar to avoidance, the Project cannot be accomplished through minimization. No practicable alternatives exist which would completely or partially avoid wetland impacts and still meet the goals (purpose and need) of the Project. Refer to Section 6.1 for No Practicable Alternatives legal test and the Alternative Analysis Report (Grette Associates 2022c) for additional detail.

3. Rectifying the impact by repairing, rehabilitating, or restoring the affected environment.

The Project will require permanent impacts to Wetlands A and B to construct the Project; therefore, repairing, rehabilitating, or restoring the wetland impacts is not feasible.

4. Reducing or eliminating the impact over time by preservation and maintenance operations.

The Project will require permanent impacts to Wetlands A and B; therefore, reducing or eliminating the wetland impacts over time is not feasible.

5. Compensating for the impact by replacing, enhancing, or providing substitute resources or environments.

There will be approximately 4.42 acres of unavoidable, permanent impacts to Wetlands A and B from the placement of fill material. As discussed in this CAPO Analysis and detailed in the Alternative Analysis Report, the Project cannot avoid or minimize impacts to the wetlands and still accomplish the Project goals (purpose and need). As a result, no feasible on-site compensatory mitigation opportunity is available.

The Project will compensate for the unavoidable impacts through a permittee-responsible mitigation (PRM) approach using credits from the Port's Lower Wapato Creek Advance Mitigation Site (Lower Wapato Creek AMS), which is an approved[12] advance mitigation site located in the Tacoma Tideflats. See the Lower Wapato Creek Habitat Project Advance Mitigation Plan (Port of Tacoma 2021a) and the Lower Wapato Creek Advance Mitigation Site Use Plan for Port of Tacoma's Off-Dock Container Support Facility (Port of Tacoma 2021b) for additional details.

6. Monitoring the required mitigation and taking remedial action where necessary.

The Lower Wapato Creek AMS will be monitored and evaluated against a set of performance standards for a period of 10 years to demonstrate the site is providing the ecological functions and values as designed. If monitoring indicates performance standards are not being met, the Port will take a proactive adaptive management approach to ensure the site meets its performance standards. Refer to Lower Wapato Creek Advance Mitigation Plan (Port of Tacoma 2021a) for details on monitoring and performance standards.

6.3 Assessment of Impacts

Approximately 4.42 acres of low-scoring Category III forested depressional wetlands will be permanently filled as a result of the Project. The following sections summarize their

[12] USACE Permit No. NWS-2020-457-WRD, including U.S. Environmental Protection Agency and Puyallup Tribe of Indians water quality certifications. Ecology Agreed Order 19520. WDFW HPA No. 2021-6-118+01, Application ID 22024, and related Advance Mitigation Agreement. City of Tacoma Critical Area Development Permit No. LU20-0113.

existing condition and functions to assess the anticipated functional loss (TMC 13.11.230(4)(c)). Further detail on their condition and functions is provided in the Wetland Analysis Report (Grette Associates 2021).

*6.3.1 **Water Quality Function***

Wetlands A and B have moderate potential to improve water quality because these features lack outlets and have a dense vegetation community. These characteristics allow the wetlands to retain surface waters and provide opportunity to filter out pollutants and sediments (Hruby 2014).

The landscape potential for the wetlands to improve water quality is moderate; however, this potential is primarily based on the land use within 150 feet of the wetlands. The development around the wetlands (i.e., roads, paved surfaces, etc.) generate pollutants; however, Wetland A does not receive stormwater, nor are there septic systems within 250 feet of either wetland. In 2011, a stormwater swale was constructed in the large gravel parking area situated in the southern portion of the Project site and the site was graded to allow stormwater to sheet flow to the stormwater swale and away from the wetlands (Grette Associates 2022b).

Wetlands A and B are located within the Puyallup River watershed. The Puyallup River is on Ecology's 303(d) list for temperature and mercury and there is a Total Maximum Daily Load (TMDL) in the Puyallup River watershed (Grette Associates 2021). Per Ecology's wetland rating system (Hruby 2014), wetlands within a basin with a TMDL are considered to be highly valuable to society. Wetlands A and B are located within a watershed that has 303(d) listed waters and a TMDL; however, they are not located within the same basin as a TMDL, nor do they have a direct surface water connection to any impaired waterbody. The wetlands are surrounded by paved city roads and stormwater infrastructure that drains to Puget Sound, not the Puyallup River. Wetlands A and B provide limited value to society due to their isolated position within the landscape.

Based on the information summarized above, Wetland A and Wetland B provide moderate but limited water quality functions. The Project will permanently impact the water quality functions; however, the loss of the water quality functions the wetlands provide will be offset by the installation of enhanced stormwater treatment as part of the Project.

*6.3.2 **Hydrologic Function***

Hydrology support for Wetland A is primarily provided by a high groundwater table and direct precipitation and hydrology support for Wetland B is primarily provided by some stormwater sheet flow, a high groundwater table, and direct precipitation (Grette Associates 2021). Wetlands A and B do not contain outlets; however, the depth of storage within these features appears to be relatively shallow, suggesting these features likely do not reduce flooding or erosion (Grette Associates 2021).

The areas within 150 feet of Wetlands A and B consist of industrial sites that have the potential to generate excess runoff; however, these sites manage much of the stormwater by collecting and/or conveying it to the public stormwater infrastructure, reducing the potential for excess runoff. Wetland B likely receives stormwater during periods of heavy precipitation however, Wetland A does not. The landscape potential to reduce flooding and erosion is limited because precipitation that falls on those areas is largely directed to

existing stormwater management infrastructure. Wetlands A and B are not situated in areas where flooding or erosion have caused damage to human and/or natural resources and the site has not been identified as important for flood storage.

Based on the information summarized above, Wetlands A and B provide moderate but limited hydrologic functions. The Project will permanently impact the hydrologic functions; however, the loss of the hydrologic functions the wetlands provide will be offset by the installation of enhanced stormwater treatment as part of the Project.

*6.3.3 **Habitat Function***

Wetlands A and B provide low wildlife habitat function due to lack of plant community structure, few hydroperiods, no habitat interspersion, and few special habitat features (Grette Associates 2021). In addition, Wetlands A and B scored negative points for their potential to provide habitat function within the landscape due to the lack of accessible and undisturbed habitats in the vicinity (Grette Associates 2021). Wetlands A and B provide low habitat value to society because these features are not in the vicinity of a WDFW priority habitat or provide habitat for threatened, endangered, or priority species (Grette Associates 2021).

Based on the information summarized above, Wetlands A and B provide very little habitat function. The Project will permanently impact the little habitat function the wetlands provide.

6.4 Amount and Type of Mitigation

The Port proposes to use credits generated from the Lower Wapato Creek AMS to mitigate for the unavoidable permanent impacts to Wetlands A and B. Goals, objectives, mitigation design, performance standards, monitoring criteria, anticipated future conditions, and contingency plans are all detailed in the Lower Wapato Creek Habitat Project Advance Mitigation Plan (Port of Tacoma 2021a) and the Lower Wapato Creek Advance Mitigation Site Use Plan for Port of Tacoma's Off-Dock Container Support Facility (Port of Tacoma 2021b).

The following sections provide detail on how mitigating for the Project at the Lower Wapato Creek AMS is consistent with the requirements set forth in the CAPO (shown in italics).

*6.4.1 **Mitigation for Lost or Affected Functions***

TMC 13.11.270(G) states "*Compensatory mitigation shall address the functions affected by the proposed project or alteration to achieve functional equivalency or improvement and shall provide similar critical area or buffer/management area/geo-setback functions as those lost, except when*:

1. The lost critical area or buffer/management area/geo-setback provides minimal functions as determined by a site-specific functional assessment, and the proposed compensatory mitigation action(s) will provide equal or greater functions or will provide functions shown to be limiting within a watershed through a formal Washington state watershed assessment plan or protocol;

Wetlands A and B are both low-scoring Category III wetlands with limited functions, as demonstrated by the Wetland Rating System for Western Washington – 2014 Update

(Hruby 2014). There is no available fish habitat, and the wetlands are isolated from other critical areas. The proposed compensatory mitigation is anticipated to be a Category I estuary with Wapato Creek, its associated wetlands, and upland buffers providing high value water quality and hydrologic functions, as well as high quality, contiguous habitat for fish and wildlife species.

*6.4.2 **Type and Location of Mitigation***

Per TMC 13.11.270(H), compensatory mitigation for ecological functions must be either in-kind and on-site or in-kind and within the same stream reach or subbasin. Mitigation actions shall be conducted within the same sub-drainage basin and on the site of alteration except when three conditions apply (shown in italics):

1. There are no reasonable on-site or in subdrainage basin opportunities (e.g., on-site options would require elimination of high functioning upland habitat), or on-site and in subdrainage basin opportunities do not have a high likelihood of success based on a determination of the natural capacity of the site to compensate for impacts. Considerations should include: anticipated critical area mitigation ratios, buffer conditions and proposed widths, available water to maintain anticipated hydrogeomorphic classes of wetlands, or streams when restored, proposed flood storage capacity, potential to mitigate riparian fish and wildlife impacts (such as connectivity);

There are no reasonable opportunities for on-site, in-kind mitigation, as the entire site will be needed to develop the Project. The Lower Wapato Creek AMS is located in the same 12-digit Hydrologic Unit Code (HUC) as the Project (HUC 171100190205, Hylebos Creek – Frontal Commencement Bay), as well as the same Water Resource Inventory Area (WRIA) (WRIA 10, Puyallup-White). The City has both the Project area and the Lower Wapato Creek AMS in the same Surfacewater Basin (Tideflats) but different subbasins (TF-2 and TF-5, respectively). Subbasin TF-2 drains to the Sitcum Waterway, and TF-5 drains to the Blair Waterway, both of which have direct connectivity to Commencement Bay. Due to the isolation of the wetlands located in the Project area, there is not a feasible alternative location within subbasin TF-2 of sufficient size to accommodate concurrent mitigation ratios and appropriate buffers, and that could successfully provide the same or better ecological functions. There are no practicable methods for mitigating Wetlands A and B within the same sub-drainage basin; however, the Project area and the Lower Wapato Creek AMS are located within the same drainage basin, and the Project area is located within the approved geographic service area of the Lower Wapato Creek AMS.

2. Off-site mitigation has a greater likelihood of providing equal or improved critical area functions than the impacted critical area;

The Lower Wapato Creek AMS provides better habitat connectivity, higher functioning wetlands and buffers, and has a greater likelihood of success to provide high-performing ecological functions. Refer to the Lower Wapato Creek Habitat Project Advance Mitigation Plan and the Lower Wapato Creek Advance Mitigation Site Use Plan for Port of Tacoma's Off-Dock Container Support Facility (Port of Tacoma 2021a and 2021b, respectively) for additional details.

Per the TMC 13.11.250 and Joint Guidance (Ecology, USACE, and EPA 2021), no net loss of wetland is a key goal at a local, state, and federal level. The Lower Wapato Creek AMS

contains habitat improvements including the reestablishment of wetlands. Pending approval, using the Lower Wapato Creek AMS to compensate for the unavoidable wetland impacts from the Project would achieve the goal of no net loss.

Overall, while Wetlands A and B have the potential to provide moderate water quality and hydrology wetland functions, the opportunity to provide those functions is likely highly limited due to the isolated position in the landscape. The developed sites within 150 feet of the wetlands largely collect and convey stormwater to the private and public stormwater infrastructure (e.g., catch basins, stormwater ditches, etc.) and do not allow stormwater to sheet flow towards the wetlands to allow an opportunity for the wetlands to provide water quality or hydrology function. In addition, although Wetland A and Wetland B do not contain outlets which would allow them to retain any potential stormwater that may sheet flow from the high land use areas, these features appear to be relatively shallow (Grette Associates 2021) which suggests they likely receive limited stormwater input and have limited opportunity to provide hydrology functions.

Wetlands A and B provide low wildlife habitat function due to a lack of interspersion of Cowardin (1979) habitats and a lack of structurally diverse wetland hydrology regimes. The landscape potential for the wetlands to provide quality habitat function is also extremely limited due to the lack of accessible habitat and undisturbed habitats in the vicinity of the wetlands.

In comparison, the Lower Wapato Creek AMS will provide valuable water quality and hydrology functions through the retention of flood waters which would allow the wetland areas to filter out sediments and pollutants prior to flowing into Puget Sound and would also provide opportunities to reduce the velocity of surface flows during storm events. Furthermore, the Lower Wapato Creek AMS has an opportunity to substantially increase flood storage capacity in the Lower Wapato Creek basin (Port of Tacoma 2021b).

Utilizing the Lower Wapato Creek AMS will also substantially improve habitat function compared to what Wetlands A and B provide. The Lower Wapato Creek AMS will establish a structurally diverse assemblage of native vegetation including the placement of LWD and will reintroduce a diverse interspersion of habitats that will provide foraging, nesting, and refuge opportunity for a wide range of aquatic, amphibian, terrestrial, and avian species.

In summary, the Lower Wapato Creek AMS will provide greater wetland function compared to the functions Wetlands A and B provide. Furthermore, utilizing the Lower Wapato Creek AMS will ensure no net loss of wetland area will occur as a result of the Project.

3. Off-site locations shall be in the same sub-drainage basin unless established watershed goals for water quality, flood storage or conveyance, habitat, or other wetland functions have been established by the City and strongly justify location of mitigation at another site.

There are no practicable methods for mitigating Wetlands A and B within the same sub-drainage basin; however, the Project area and the Lower Wapato Creek AMS are located within the same drainage basin, and the Project area is located within the approved geographic service area of the Lower Wapato Creek AMS. Watershed goals for the Tideflats include restoring areas vital to salmon recovery (i.e., estuary) and providing

habitat connectivity to both fish and wildlife. The Lower Wapato Creek AMS provides both estuary function and habitat connectivity, whereas the Project area wetlands do not.

Offsite and in-kind compensatory mitigation is an allowed alternative (pending Director approval) to compensate for unavoidable wetland impacts when there are no reasonable on-site opportunities available. As summarized above, there is no feasible design alternative that does not result in permanent wetland impacts and there are no design alternatives that allow for on-site compensatory mitigation. Furthermore, the proposed mitigation approach has been developed using the mitigation hierarchy defined in the Joint Guidance (Ecology, USACE, and EPA 2021) as guidance to ensure no temporal loss of wetland function and certainty of function replacement occurs for compliance with the no net loss requirements defined in TMC 13.11.250. Compensation for the unavoidable permanent impacts will be accomplished utilizing credits from the Port's Lower Wapato Creek AMS. Using the Lower Wapato Creek AMS will include some out-of-kind mitigation credits; however, the proposed mitigation approach will provide improved wetland functions compared to the existing wetlands in the Project area.

*6.4.3 **Timing of Compensatory Mitigation***

Per TMC 13.11.270(K), the City prefers compensation projects be completed prior to activities that will disturb the on-site critical area and construction of mitigation projects shall be timed to reduce impacts to existing fisheries, wildlife, and flora.

The Lower Wapato Creek AMS will be constructed in advance of the Project activities that will impact the on-site wetlands. The Lower Wapato Creek AMS was constructed during the WDFW-approved in-water work window to minimize impacts to existing fisheries.

*6.4.4 **Innovative Mitigation***

Per TMC 13.11.270(M), innovative mitigation projects are based on the best available science and include but are not limited to advance mitigation and preferred environmental alternatives. Innovative mitigation proposals must offer an equivalent or better level of protection of critical area functions and values than would be provided by the strict adherence to the CAPO, and must demonstrate special consideration for conservation and protection measures for anadromous fisheries. The Director shall consider the following for approval of an innovative mitigation proposal (shown in italics):

1. Creation or enhancement of a larger system of natural areas and open space is preferable to the preservation of many individual habitat areas;

The Lower Wapato Creek AMS includes a large, complex network of interspersed habitats within the approximate 18.5-acre site, including estuary, freshwater and realigned creek channels which benefit anadromous fishes.

2. The applicant demonstrates that long-term protection and management of the habitat area will be provided;

The Lower Wapato Creek AMS will be protected and maintained in perpetuity as a habitat area. An advance mitigation agreement was finalized with WDFW in March 2021; an agreed order was finalized with Ecology in June 2021; and an Ecology-approved restrictive covenant was recorded with Pierce County in March 2022. After the site completes the performance monitoring period, it will enter into the Port's long-term stewardship program

to ensure its ongoing success. See the Lower Wapato Creek Habitat Project Advance Mitigation Plan for additional details (Port of Tacoma 2021a).

3. There is clear potential for success of the proposed mitigation at the proposed mitigation site;

The Port has a long history of successfully creating and maintaining habitat mitigation sites. The Project site is located within the service area of the Lower Wapato Creek AMS and the Lower Wapato Creek Habitat Project-Advance Mitigation Plan (Port of Tacoma 2021a) specifically defines the Project site as one of the sites the Lower Wapato Creek AMS is intended to address. The Lower Wapato Creek AMS has been modeled to provide high-quality Category I estuarine wetland, freshwater wetlands, and densely vegetated upland buffers. See the Lower Wapato Creek Habitat Project Advance Mitigation Plan for additional details (Port of Tacoma 2021a).

4. Mitigation according to TMC 13.11.270(E) is not feasible due to site constraints such as parcel size, stream type, wetland category, or excessive costs;

Refer to Section 6.2 for details on why on-site mitigation is not feasible due to size constraints.

5. A wetland of a different type is justified based on regional needs or functions and values;

Over 90 percent of the estuary in the Puyallup River delta was lost due to over 100 years of development. The Port focuses on habitat mitigation projects that incorporate salmon recovery as opposed to wetlands with no salmon habitat. The Lower Wapato Creek AMS will have Category I estuarine wetland and the realigned creek channel, both of which are vital to a salmon's lifecycle.

6. The replacement ratios are not reduced or eliminated; unless the reduction results in a preferred environmental alternative; and

The age of the Lower Wapato Creek AMS determines the specific acre-credit use ratios for the type of wetland acre-credits required for compensatory mitigation (Port of Tacoma 2021a). Generally, an advance mitigation site does not generate advance mitigation credits until after the second-year post-construction; however, in some cases, fish passage barrier removal and wetland reestablishment can generate advance mitigation credits at the time of construction on a case-by-case basis (Port of Tacoma 2021a).

As outlined in the Lower Wapato Creek Advance Mitigation Site Use Plan for Port of Tacoma's Off-Dock Container Support Facility Use Plan (Port of Tacoma 2021b), the Port is proposing slightly different credit use ratios because the functions provided at the Lower Wapato Creek AMS are significantly higher than the limited functions of the impacted wetlands. In addition to the improved functions, with the exception of installation of the native shrubs and trees[13], all of the wetland and habitat areas have been constructed, all of the emergent and grass areas have been seeded, and all of the habitat structures were installed in the Lower Wapato Creek AMS by the end of December 2021.

There are two types of wetland credits available at the Lower Wapato Creek AMS: estuarine emergent (EEM) and palustrine forest (PFO). EEM wetland credits can be used

[13] Plant installation is scheduled to occur in the fall of 2022 and spring 2023 (Port of Tacoma 2021b).

to address estuarine or palustrine[14] wetland impacts, while PFO[15] wetland credits can be used for palustrine wetland impacts only. According to the Use Plan (Port of Tacoma 2021b), the Lower Wapato Creek AMS is expected to generate approximately 6.27 EEM acre-credits and 3.08-3.75 PFO acre-credits. Given that the Project impacts are not anticipated to occur until at least the second quarter of 2023 and that the construction of the Lower Wapato Creek AMS is largely complete and currently providing some water quality, hydrology, and habitat wetland functions, the Port is proposing to utilize the Year 2-Age of Site credit use ratios (EEM: 1.8:1 and PFO: 1.85:1[16]) defined in the Lower Wapato Creek Habitat Project Advance Mitigation Plan (Table 2; Port of Tacoma 2021a).

Table 2. Lower Wapato Creek AMS Credits Proposed for Use by Project Impact

Wetland	Wetland Area (acres)	Permanently Filled/Mitigated Wetland Area (acres)	Ecology Rating	PFO Credit Needed per Impact Acre(1)	PFO Credit Proposed for Use	EEM Credit Needed per Impact Acre(2)	EEM Credit Proposed for Use
A	1.681	1.681	III	2	3.36	-	-
B	2.738	2.738	III	2	0.39	1.8	4.58
TOTAL	**4.419**	**4.419**		**-**	**3.75**	**-**	**4.58**

[1] The 3.75 PFO acre-credits account for 2.027 acres of Category III wetland impact.
[2] The 4.58 EEM acre-credits account for 2.392 acres of Category III wetland impacts.

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Public entity cooperative preservation agreements have been applied. See Section 6.4.4.2.

*6.4.5 **Potential Adverse Impacts to Adjacent Property Owners***

When designing the Lower Wapato Creek AMS, potential adverse impacts to adjacent property owners were evaluated (TMC 13.11.230(B)(4)(n)). The Lower Wapato Creek AMS provides additional flood storage due to reconnecting the creek to its floodplain, and the replacement of undersized culverts with a full-span bridge allows Wapato Creek to convey water during periods of high flow much more effectively, both of which provide a net benefit to adjacent property owners.

7 REFERENCES

Cowardin, L. M., V. Carter, F. C. Golet, and E. T. LaRoe. 1979. Classification of Wetlands and Deepwater Habitats for the United States. FWS/OBS-79/31, U.S. Department of Interior, Fish and Wildlife Service. Washington D.C.

Environmental Laboratory (Corps). 1987. Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1, US Army Engineer Waterways Experiment Station, Vicksburg, Mississippi.

[14] Please note that the use of EEM credits is not intended to be limited to palustrine emergent wetland impacts.
[15] Please note that the use of PFO credits is not intended to be limited to palustrine forested wetland impacts.
[16] Ratios are defined as acre-credits to area of impact.

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PORT OF TACOMA

OFF-DOCK CONTAINER SUPPORT FACILITY PROJECT CRITICAL AREAS PRESERVATION ORDINANCE ANALYSIS

APPENDIX A: PROJECT PURPOSE AND NEED DOCUMENTATION

BRIEFING ROOM

Executive Order on America's Supply Chains

FEBRUARY 24, 2021 • PRESIDENTIAL ACTIONS

By the authority vested in me as President by the Constitution and the laws of the United States of America, it is hereby ordered as follows:

Section 1. Policy. The United States needs resilient, diverse, and secure supply chains to ensure our economic prosperity and national security. Pandemics and other biological threats, cyber-attacks, climate shocks and extreme weather events, terrorist attacks, geopolitical and economic competition, and other conditions can reduce critical manufacturing capacity and the availability and integrity of critical goods, products, and services. Resilient American supply chains will revitalize and rebuild domestic manufacturing capacity, maintain America's competitive edge in research and development, and create well-paying jobs. They will also support small businesses, promote prosperity, advance the fight against climate change, and encourage economic growth in communities of color and economically distressed areas.

More resilient supply chains are secure and diverse — facilitating greater domestic production, a range of supply, built-in redundancies, adequate stockpiles, safe and secure digital networks, and a world-class American manufacturing base and workforce. Moreover, close cooperation on resilient supply chains with allies and partners who share our values will foster collective economic and national security and strengthen the capacity to respond to international disasters and emergencies.

Therefore, it is the policy of my Administration to strengthen the resilience of America's supply chains.

Sec. 2. Coordination. The Assistant to the President for National Security Affairs (APNSA) and the Assistant to the President for Economic Policy (APEP) shall coordinate the executive branch actions necessary to implement this order through the interagency process identified in National Security Memorandum 2 of February 4, 2021 (Renewing the National Security Council System). In implementing this order, the heads of agencies should, as appropriate, consult outside stakeholders — such as those in industry, academia, non-governmental organizations, communities, labor unions, and State, local, and Tribal governments — in order to fulfill the policy identified in section 1 of this order.

Sec. 3. 100-Day Supply Chain Review. (a) To advance the policy described in section 1 of this order, the APNSA and the APEP, in coordination with the heads of appropriate agencies, as defined in section 6(a) of this order, shall complete a review of supply chain risks, as outlined

in subsection (b) of this section, within 100 days of the date of this order.

(b) Within 100 days of the date of this order, the specified heads of agencies shall submit the following reports to the President, through the APNSA and the APEP:

(i) The Secretary of Commerce, in consultation with the heads of appropriate agencies, shall submit a report identifying risks in the semiconductor manufacturing and advanced packaging supply chains and policy recommendations to address these risks. The report shall include the items described in section 4(c) of this order.

(ii) The Secretary of Energy, in consultation with the heads of appropriate agencies, shall submit a report identifying risks in the supply chain for high-capacity batteries, including electric-vehicle batteries, and policy recommendations to address these risks. The report shall include the items described in section 4(c) of this order.

(iii) The Secretary of Defense (as the National Defense Stockpile Manager), in consultation with the heads of appropriate agencies, shall submit a report identifying risks in the supply chain for critical minerals and other identified strategic materials, including rare earth elements (as determined by the Secretary of Defense), and policy recommendations to address these risks. The report shall also describe and update work done pursuant to Executive Order 13953 of September 30, 2020 (Addressing the Threat to the Domestic Supply Chain From Reliance on Critical Minerals From Foreign Adversaries and Supporting the Domestic Mining and Processing Industries). The report shall include the items described in section 4(c) of this order.

(iv) The Secretary of Health and Human Services, in consultation with the heads of appropriate agencies, shall submit a report identifying risks in the supply chain for pharmaceuticals and active pharmaceutical ingredients and policy recommendations to address these risks. The report shall complement the ongoing work to secure the supply chains of critical items needed to combat the COVID-19 pandemic, including personal protective equipment, conducted pursuant to Executive Order 14001 of January 21, 2021 (A Sustainable Public Health Supply Chain). The report shall include the items described in section 4(c) of this order.

(c) The APNSA and the APEP shall review the reports required under subsection (b) of this section and shall submit the reports to the President in an unclassified form, but may include a classified annex.

(d) The APNSA and the APEP shall include a cover memorandum to the set of reports submitted pursuant to this section, summarizing the reports' findings and making any additional overall recommendations for addressing the risks to America's supply chains, including the supply chains for the products identified in subsection (b) of this section.

Sec. 4. Sectoral Supply Chain Assessments. (a) Within 1 year of the date of this order, the specified heads of agencies shall submit the following reports to the President, through the APNSA and the APEP:

(i) The Secretary of Defense, in consultation with the heads of appropriate agencies, shall submit a report on supply chains for the defense industrial base that updates the report provided pursuant to Executive Order 13806 of July 21, 2017 (Assessing and Strengthening the Manufacturing and Defense Industrial Base and Supply Chain Resiliency of the United States), and builds on the Annual Industrial Capabilities Report mandated by the Congress pursuant to section 2504 of title 10, United States Code. The report shall identify areas where civilian supply chains are dependent upon competitor nations, as determined by the Secretary of Defense.

(ii) The Secretary of Health and Human Services, in consultation with the heads of appropriate agencies, shall submit a report on supply chains for the public health and biological preparedness industrial base (as determined by the Secretary of Health and Human Services). The report shall complement the work conducted pursuant to section 4 of Executive Order 14001.

(iii) The Secretary of Commerce and the Secretary of Homeland Security, in consultation with the heads of appropriate agencies, shall submit a report on supply chains for critical sectors and subsectors of the information and communications technology (ICT) industrial base (as determined by the Secretary of Commerce and the Secretary of Homeland Security), including the industrial base for the development of ICT software, data, and associated services.

(iv) The Secretary of Energy, in consultation with the heads of appropriate agencies, shall submit a report on supply chains for the energy sector industrial base (as determined by the Secretary of Energy).

(v) The Secretary of Transportation, in consultation with the heads of appropriate agencies, shall submit a report on supply chains for the transportation industrial base (as determined by the Secretary of Transportation).

(vi) The Secretary of Agriculture, in consultation with the heads of appropriate agencies, shall submit a report on supply chains for the production of agricultural commodities and food products.

(b) The APNSA and the APEP shall, as appropriate and in consultation with the heads of appropriate agencies, recommend adjustments to the scope for each industrial base assessment, including digital networks, services, assets, and data ("digital products"), goods, services, and materials that are relevant within more than one defined industrial base, and add new assessments, as appropriate, for goods and materials not included in the above industrial base assessments.

(c) Each report submitted under subsection (a) of this section shall include a review of:

(i) the critical goods and materials, as defined in section 6(b) of this order, underlying the supply chain in question;

(ii) other essential goods and materials, as defined in section 6(d) of this order,

underlying the supply chain in question, including digital products;

(iii) the manufacturing or other capabilities necessary to produce the materials identified in subsections (c)(i) and (c)(ii) of this section, including emerging capabilities;

(iv) the defense, intelligence, cyber, homeland security, health, climate, environmental, natural, market, economic, geopolitical, human-rights or forced-labor risks or other contingencies that may disrupt, strain, compromise, or eliminate the supply chain — including risks posed by supply chains' reliance on digital products that may be vulnerable to failures or exploitation, and risks resulting from the elimination of, or failure to develop domestically, the capabilities identified in subsection (c)(iii) of this section — and that are sufficiently likely to arise so as to require reasonable preparation for their occurrence;

(v) the resilience and capacity of American manufacturing supply chains and the industrial and agricultural base — whether civilian or defense — of the United States to support national and economic security, emergency preparedness, and the policy identified in section 1 of this order, in the event any of the contingencies identified in subsection (c)(iv) of this section occurs, including an assessment of:

(A) the manufacturing or other needed capacities of the United States, including the ability to modernize to meet future needs;

(B) gaps in domestic manufacturing capabilities, including nonexistent, extinct, threatened, or single-point-of-failure capabilities;

(C) supply chains with a single point of failure, single or dual suppliers, or limited resilience, especially for subcontractors, as defined by section 44.101 of title 48, Code of Federal Regulations (Federal Acquisition Regulation);

(D) the location of key manufacturing and production assets, with any significant risks identified in subsection (c)(iv) of this section posed by the assets' physical location;

(E) exclusive or dominant supply of critical goods and materials and other essential goods and materials, as identified in subsections (c)(i) and (c)(ii) of this section, by or through nations that are, or are likely to become, unfriendly or unstable;

(F) the availability of substitutes or alternative sources for critical goods and materials and other essential goods and materials, as identified in subsections (c)(i) and (c)(ii) of this section;

(G) current domestic education and manufacturing workforce skills for the relevant sector and identified gaps, opportunities, and potential best practices in meeting the future workforce needs for the relevant sector;

(H) the need for research and development capacity to sustain leadership in the development of critical goods and materials and other essential goods and materials, as identified in subsections (c)(i) and (c)(ii) of this section;

(I) the role of transportation systems in supporting existing supply chains and risks associated with those transportation systems; and

(J) the risks posed by climate change to the availability, production, or transportation of critical goods and materials and other essential goods and materials, as identified in subsections (c)(i) and (c)(ii) of this section.

(vi) allied and partner actions, including whether United States allies and partners have also identified and prioritized the critical goods and materials and other essential goods and materials identified in subsections (c)(i) and (c)(ii) of this section, and possible avenues for international engagement. In assessing these allied and partner actions, the heads of agencies shall consult with the Secretary of State;

(vii) the primary causes of risks for any aspect of the relevant industrial base and supply chains assessed as vulnerable pursuant to subsection (c)(v) of this section;

(viii) a prioritization of the critical goods and materials and other essential goods and materials, including digital products, identified in subsections (c)(i) and (c)(ii) of this section for the purpose of identifying options and policy recommendations. The prioritization shall be based on statutory or regulatory requirements; importance to national security, emergency preparedness, and the policy set forth in section 1 of this order; and the review conducted pursuant to subsection (c)(v) of this section;

(ix) specific policy recommendations for ensuring a resilient supply chain for the sector. Such recommendations may include sustainably reshoring supply chains and developing domestic supplies, cooperating with allies and partners to identify alternative supply chains, building redundancy into domestic supply chains, ensuring and enlarging stockpiles, developing workforce capabilities, enhancing access to financing, expanding research and development to broaden supply chains, addressing risks due to vulnerabilities in digital products relied on by supply chains, addressing risks posed by climate change, and any other recommendations;

(x) any executive, legislative, regulatory, and policy changes and any other actions to strengthen the capabilities identified in subsection (c)(iii) of this section, and to prevent, avoid, or prepare for any of the contingencies identified in subsection (c)(iv) of this section; and

(xi) proposals for improving the Government-wide effort to strengthen supply chains, including proposals for coordinating actions required under this order with ongoing efforts that could be considered duplicative of the work of this order or with existing Government mechanisms that could be used to implement this order in a more effective manner.

(d) The APNSA and the APEP shall review the reports required under subsection (a) of this section and shall submit the reports to the President in an unclassified form, but may include a classified annex.

Sec. 5. General Review and Recommendations. As soon as practicable following the submission of the reports required under section 4 of this order, the APNSA and the APEP, in coordination with the heads of appropriate agencies, shall provide to the President one or more reports reviewing the actions taken over the previous year and making recommendations

concerning:

(a) steps to strengthen the resilience of America's supply chains;

(b) reforms needed to make supply chain analyses and actions more effective, including statutory, regulatory, procedural, and institutional design changes. The report shall include recommendations on whether additional offices, personnel, resources, statistical data, or authorities are needed;

(c) establishment of a quadrennial supply chain review, including processes and timelines regarding ongoing data gathering and supply chain monitoring;

(d) diplomatic, economic, security, trade policy, informational, and other actions that can successfully engage allies and partners to strengthen supply chains jointly or in coordination;

(e) insulating supply chain analyses and actions from conflicts of interest, corruption, or the appearance of impropriety, to ensure integrity and public confidence in supply chain analyses;

(f) reforms to domestic and international trade rules and agreements needed to support supply chain resilience, security, diversity, and strength;

(g) education and workforce reforms needed to strengthen the domestic industrial base;

(h) steps to ensure that the Government's supply chain policy supports small businesses, prevents monopolization, considers climate and other environmental impacts, encourages economic growth in communities of color and economically distressed areas, and ensures geographic dispersal of economic activity across all regions of the United States; and

(i) Federal incentives and any amendments to Federal procurement regulations that may be necessary to attract and retain investments in critical goods and materials and other essential goods and materials, as defined in sections 6(b) and 6(d) of this order, including any new programs that could encourage both domestic and foreign investment in critical goods and materials.

Sec. 6. Definitions. For purposes of this order:

(a) "Agency" means any authority of the United States that is an "agency" under 44 U.S.C. 3502(1), other than those considered to be independent regulatory agencies, as defined in 44 U.S.C. 3502(5). "Agency" also means any component of the Executive Office of the President.

(b) "Critical goods and materials" means goods and raw materials currently defined under statute or regulation as "critical" materials, technologies, or infrastructure.

(c) "Critical minerals" has the meaning given to that term in Executive Order 13953 of September 30, 2020 (Addressing the Threat to the Domestic Supply Chain From Reliance on Critical Minerals From Foreign Adversaries and Supporting the Domestic Mining and Processing Industries).

(d) "Other essential goods and materials" means goods and materials that are essential to national and economic security, emergency preparedness, or to advance the policy set forth in section 1 of this order, but not included within the definition of "critical goods and materials."

(e) "Supply chain," when used with reference to minerals, includes the exploration, mining,

concentration, separation, alloying, recycling, and reprocessing of minerals.

Sec. 7. General Provisions. (a) Nothing in this order shall be construed to impair or otherwise affect

(i) the authority granted by law to an executive department or agency, or the head thereof; or

(ii) the functions of the Director of the Office of Management and Budget relating to budgetary, administrative, or legislative proposals.

(b) This order shall be implemented consistent with applicable law and subject to the availability of appropriations.

(c) This order is not intended to, and does not, create any right or benefit, substantive or procedural, enforceable at law or in equity by any party against the United States, its departments, agencies, or entities, its officers, employees, or agents, or any other person.

JOSEPH R. BIDEN JR.

THE WHITE HOUSE,
February 24, 2021.

BRIEFING ROOM

White House Announces John D. Porcari as Port Envoy to the Biden-Harris Administration Supply Chain Disruptions Task Force

AUGUST 27, 2021 • STATEMENTS AND RELEASES

WASHINGTON – Today, the White House announced that John D. Porcari will be the Port Envoy to the Biden-Harris Administration Supply Chain Disruptions Task Force.

The Task Force was established in June to address supply and demand mismatches that emerged in several sectors as the economy reawakened following the Administration's historic vaccination and economic relief efforts. Transportation Secretary Pete Buttigieg leads the Task Force focus on ports and trucking issues. The Task Force's leadership also includes Agriculture Secretary Tom Vilsack on food and agriculture and Commerce Secretary Gina Raimondo on homebuilding and semiconductors.

"The strength of the U.S. economic recovery has tested the near-term capacity of our supply chains, and the Administration is operating on all fronts to ease bottlenecks and facilitate the flow of goods across the country," **said NEC Director Brian Deese.** "Our country's ports are the gateways for getting goods to market, which makes the appointment of John Porcari as Ports Envoy an especially important step forward in alleviating these disruptions that are impacting consumers, workers, and businesses alike."

Since the launch of the Task Force, Secretary Buttigieg and the Department of Transportation have been engaged in extensive outreach and engagement with port stakeholders including virtual round table held in July with representatives of all aspects of the ports' supply chain. Out of this work, it has become clear that the challenges at our ports, some of which have existed for years, require dedicated focus by experienced, senior leadership to drive toward outcomes that will reduce congestion, improve operations and set us on a sustainable path for the future. John Porcari is uniquely qualified to take on this role.

Envoy Porcari will work closely with Secretary Buttigieg and his team at the Department of Transportation as well as the National Economic Council to address the congestion at U.S. ports. Disruptions in global shipping and rapid shifts in demand have led the cost of shipping

containers between China and the West Coast to grow more than 90% compared to 2019. This congestion is being felt particularly acutely at the Ports of Los Angeles and Long Beach, which together handle the largest share of containerized cargo moving through U.S. ports. Port workers and terminals have handled containerized cargo volumes that rose 40% in the first half of this year compared to the same time last year. Envoy Porcari will work with these stakeholder and others at the ports to address the backlog and associated delivery delays and product shortages being experienced by American consumers and businesses.

In addition, to Porcari's work, the Biden Administration has negotiated an historic $17 billion in investments in port infrastructure as part of the Bipartisan Infrastructure Deal. The funding would help address congestion and supply chains over time by investing in repair and maintenance backlogs and reduce congestion and emissions near ports.

John D. Porcari, Port Envoy to the White House Supply Chain Disruptions Task Force, Department of Transportation

John D. Porcari is a nationally recognized public and private sector infrastructure leader, who has delivered some of America's most challenging projects and driven the adoption of equitable, community-serving infrastructure policies and projects at the local, state and federal levels.

As Deputy Secretary and Chief Operating Officer of the Department of Transportation in the Obama-Biden administration (2009-2014), Porcari was directly involved in overseeing port, intermodal, maritime policy and maritime-related competitive grant programs throughout the United States.

In a previous role, serving twice as Secretary of Transportation for the State of Maryland and Chairman of the Maryland Port Commission (1999-2003 and 2006-2009), Porcari initiated a strategic plan for the Port of Baltimore that built it into the largest ro/ro (roll on/roll off) port in the nation, exporting construction and agricultural machinery from the Midwest to the world and growing the port into one of the nation's top ten in terms of both dollar value and tonnage.

Under Porcari's leadership, the Port of Baltimore also entered into a pioneering public-private partnership to expand its Seagirt container terminal, adding a fourth, 50-foot container berth and state of the art cranes to accommodate the newest super-post-panamax container vessels.

This 50-year, $1.3 billion dollar P3, with the strong support of labor, has become a national model.

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BRIEFING ROOM

FACT SHEET: Biden Administration Efforts to Address Bottlenecks at Ports of Los Angeles and Long Beach, Moving Goods from Ship to Shelf

OCTOBER 13, 2021 • STATEMENTS AND RELEASES

President Biden knew that there would be massive economic challenges emerging from the pandemic. The Biden Administration acted quickly to get the economy moving again – passing and implementing the American Rescue Plan to get checks in bank accounts and get Americans vaccinated.

But as the country recovers from a once in a century pandemic and economic crisis, the private businesses that make up our supply chains, which get goods to businesses and the American people, have struggled to keep up. The pandemic has led to a surge in e-commerce, with sales increasing 39 percent in the first quarter of 2021 compared to the first quarter of 2020. At the same time, COVID has disrupted workers in key transportation and logistics nodes – the jobs of 1,800 Southern California port workers were disrupted because of COVID earlier this year.

These disruptions are not just happening here at home, but all around the world as COVID has led to global shut downs and disruptions. The Chinese ports of Yantian (Shenzhen) and Ningbo-Zhoushan—two of the top 5 largest ports in the world—each experienced multi-week partial-terminal closures aimed at curbing COVID outbreaks, slowing global supply chains due to increased dwell times and cancelled sailings. In September, hundreds of factories closed under lockdown restrictions in Vietnam, halting production that supports thousands of retailers worldwide. They have been slowly reopening in early October but must still contend with mounting supply chain issues. These disruptions have made the transportation supply chain more unstable and difficult to predict.

The President launched the Supply Chain Disruptions Task Force in June, which included a focus on transportation and logistics bottlenecks to the U.S. economic recovery. After meeting

with local government leaders and companies to diagnose the problems and identify solutions, Port Envoy John Porcari was appointed in August to help drive coordination between the many private firms who control the transportation and logistics supply chain.

Today, the Administration is convening business leaders, port leaders, and union leaders to discuss the challenges at ports across the country and actions each partner can take to address the delays and congestion across the transportation supply chain. And the President will meet with the leadership from the Ports of Los Angeles and Long Beach and the International Longshore and Warehouse Union (ILWU) to discuss the actions they are each taking to address these challenges in Southern California.

These leaders are announcing a series of public and private commitments to move more goods faster, and strengthen the resiliency of our supply chains, by moving towards 24/7 operations at the Ports of Los Angeles and Long Beach. These two ports are the point of entry for 40 percent of containers to the U.S., and are on track to reach new highs in container traffic this year. Through August, Los Angeles has moved 30% more and Long Beach over 20% more containers to help U.S. exporters reach customers around the world and U.S families and factories get the goods they need.

These commitments will speed up shipments of goods throughout the country and include:

The Port of Los Angeles is expanding to 24/7 operation. The Port of Long Beach expanded operations in mid-September. The Port of Los Angeles is now joining them by adding new off-peak night time shifts and weekend hours. This expansion means the Port of Los Angeles has nearly doubled the hours that cargo will be able to move out of its docks and on highways.

The International Longshore and Warehouse Union (ILWU) has announced its members are willing to work those extra shifts. This will add needed capacity to put towards clearing existing backlogs. This is an important first step, now the private businesses along the supply chain need to move their operations to 24/7.

Large companies are announcing they will use expanded hours to move more cargo off the docks, so ships can come to shore faster. Unlike leading ports around the world, U.S. ports have failed to realize the full possibility offered by operation on nights and weekends. Moving goods during off-peak hours can help move goods out of ports faster. For example, at the Port of LA, goods move 25 percent faster at night than during the day. These commitments will help unlock capacity in the rest of the system—including highways, railroads and warehouses—by reducing congestion during the day.

The commitments being announced today include:

- The nation's largest retailer, **Walmart**, is committing to increase its use of night-time

hours significantly and projects they could increase throughput by as much as 50% over the next several weeks.

- **UPS** is committing to an increased use of 24/7 operations and enhanced data sharing with the ports, which could allow it to move up to 20 percent more containers from the ports.
- **FedEx** is committing to work to combine an increase in night time hours with changes to trucking and rail use to increase the volume of containers it will move from the ports. Once these changes are in place, they could double the volume of cargo they can move out of the ports at night.
- **Samsung** is committing to move nearly 60% more containers out of these ports by operating 24/7 through the next 90 days. 72% of U.S. homes have at least one Samsung product, from appliances to consumer electronics.
- **The Home Depot** is committing to move up to 10% additional containers per week during the newly available off-peak port hours at the Ports of L.A. and Long Beach.
- **Target**, which is currently moving about 50 percent of its containers at night, has committed to increasing that amount by 10 percent during the next 90 days to help ease congestion at the ports.

Across these six companies over 3,500 additional containers per week will move at night through the end of the year.

Those boxes contain toys, appliances, bicycles, and furniture that Americans purchased online or at their local small business, and pieces and parts that are sent to U.S. factories for our workers to assemble into products. And this is just a start—these commitments provide a clear market signal to the other businesses along the transportation supply chain—rails, trucks, and warehouses—that there is demand to move additional cargo at off-peak hours.

Secretary Buttigieg and Port Envoy Porcari will continue to work with all stakeholders to help more businesses access these expanded hours, and move the rest of the supply chain towards 24/7 operations.

This effort is part of the ongoing work of the Biden-Harris Supply Chain Disruptions Task Force to continue to identify emerging bottlenecks to the economic recovery and take action to clear them to help families, workers, and businesses get the goods they need.

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BRIEFING ROOM

Improving and Tracking Supply Chains Link by Link

NOVEMBER 03, 2021 • BLOG

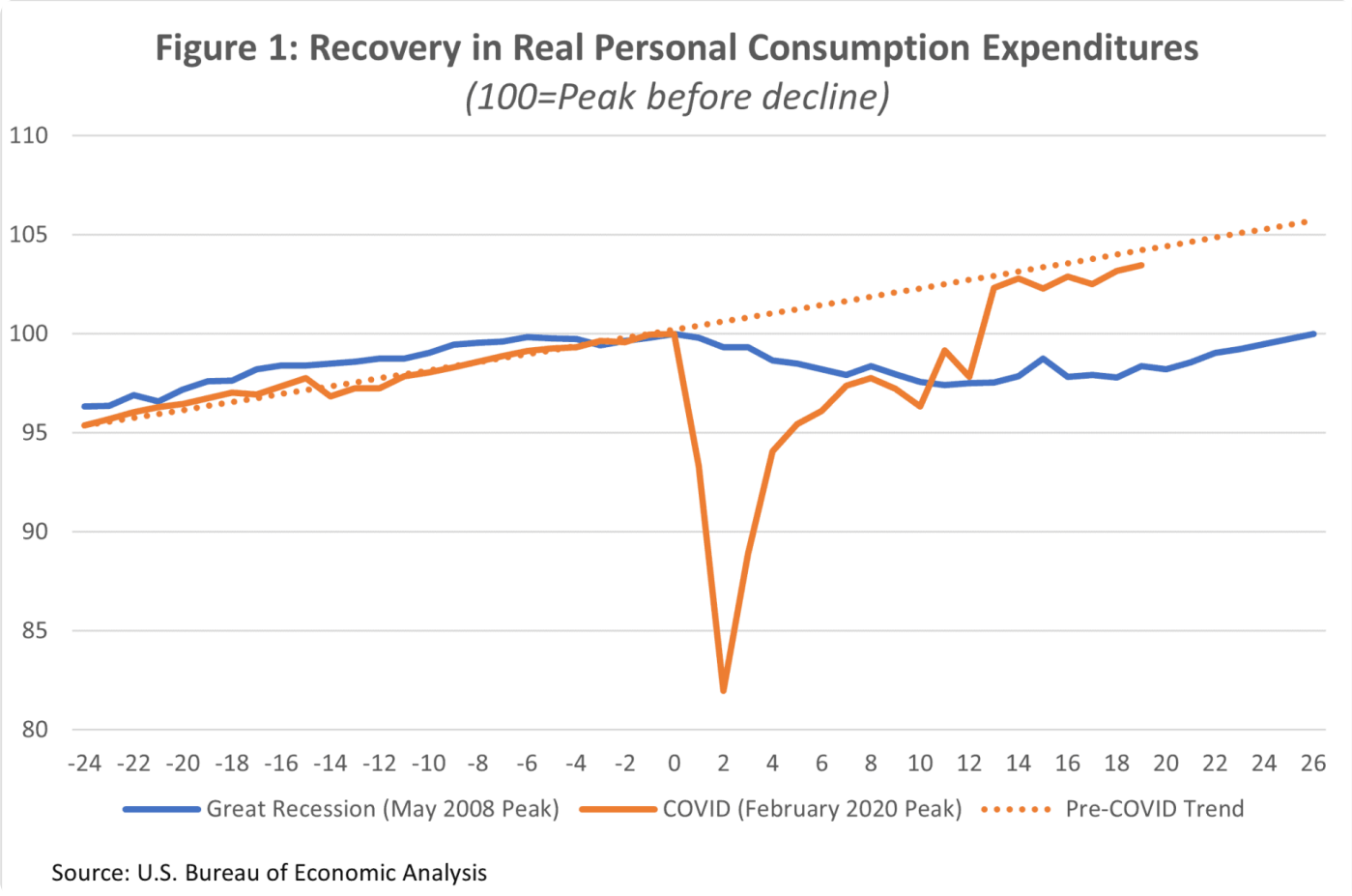
John D. Porcari, Sameera Fazili, and Liz Reynolds

"Supply chains," a term once reserved for business logistics teams, has now become a household phrase. Whether you're shopping for a car, a refrigerator, or a sweater, delays and backlogs have drawn attention to the largely private sector systems responsible for both making goods and moving them from factories to shelves and doorsteps. These private systems are also global, and therefore the global nature of the pandemic has proven to be a profound disruption to supply chains since the pandemic first took hold in early 2020. That is why President Biden called for greater coordination between our closest trading partners to overcome these collective issues during the G-20 summit this weekend.

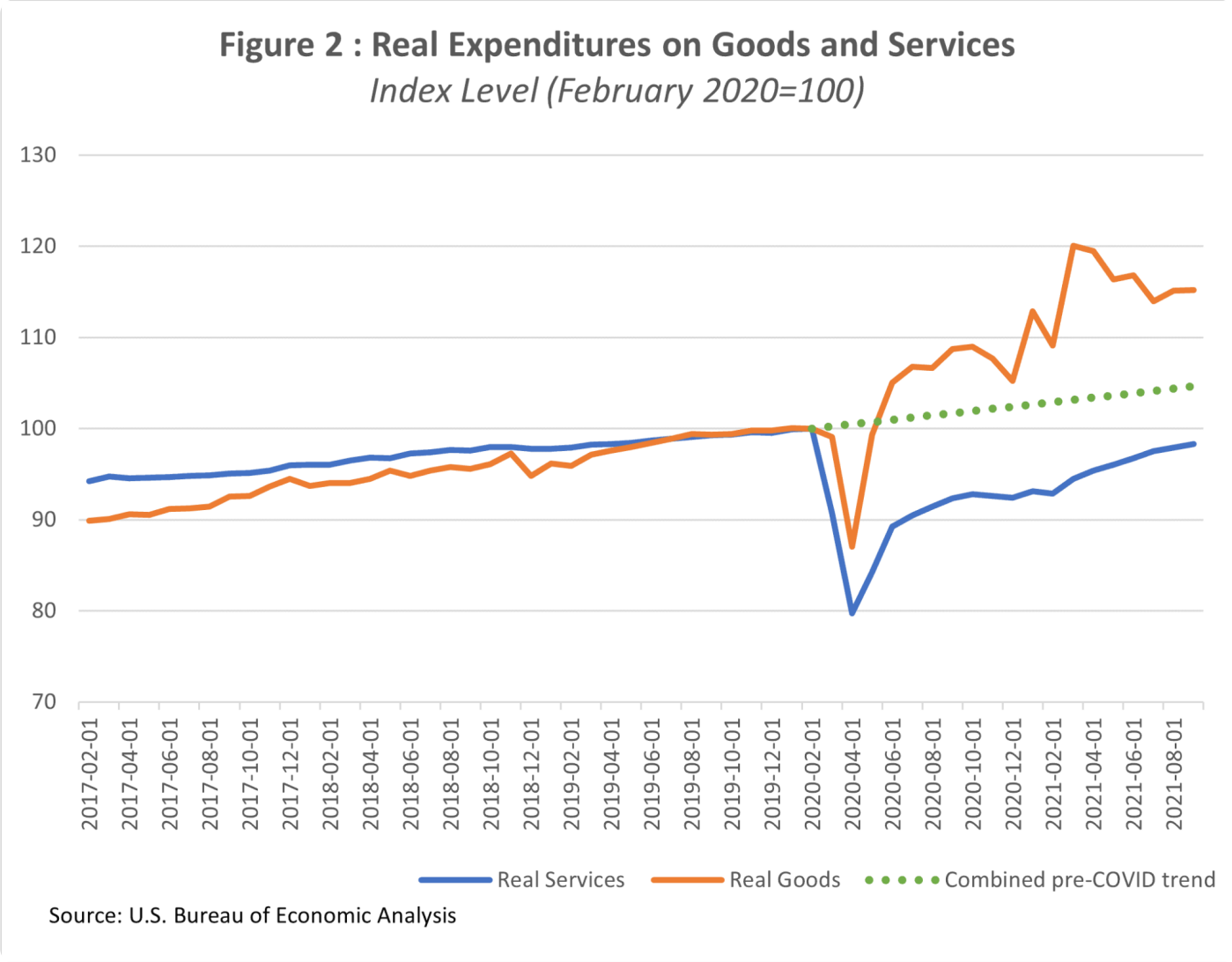
While supply chain disruptions remain a challenging side effect of the COVID-19 pandemic, they now also signal the swift return of strong consumer demand in the U.S. after one of the deepest recessions on record. In this blog post, we detail how the Biden-Harris Supply Chain Disruptions Task Force is measuring and tracking the status of the leading drivers of disruptions in our transportation and logistics supply chain, and the steps we are taking to ensure that goods continue to reach the households and businesses who depend on them.

Rising Tides

Since President Biden took office, nearly 5 million jobs have been created, the unemployment rate has dropped to below 5 percent, the number of people collecting unemployment insurance benefits has fallen by 2.5 million, and food insecurity has declined nearly 40 percent. President Biden's economic agenda has propelled the United States to the fastest economic growth in nearly 40 years over the first three quarters of this year, and over the pandemic as a whole the U.S. leads G7 countries in its recovery. As a result of this historically strong recovery, American families have been able to return their overall spending to pre-pandemic trends. This marks a stark contrast with this point in previous economic recoveries.



But while overall consumer spending is almost back to its pre-pandemic trend, the composition of that spending is quite different. Since the pandemic, consumer purchases of goods—like furniture, appliances, and food—has shot past pre-pandemic levels, and spending on services—like healthcare and vacations—has not yet returned to pre-pandemic trend levels. As the pandemic recedes, spending on goods is expected to decline and spending on services to rise. We are already seeing that with spending on goods in September well below its April 2021 peak, but we still have a ways to go. In the meantime, our supply chains are moving record volumes of goods – and being asked to continue to do so. They also must withstand ongoing disruptions due to the global pandemic, as shipping delays due to the delta variant has demonstrated. The reshuffling of spending from services to goods as the public health situation improves will be critical for reducing disruptions.



Our Periscope on Supply Chains

Starting today, we will be publishing a twice monthly dashboard of metrics to track progress at both the ports of Los Angeles and Long Beach, and in the economy at large. Here, we explain what we are tracking and why it matters.

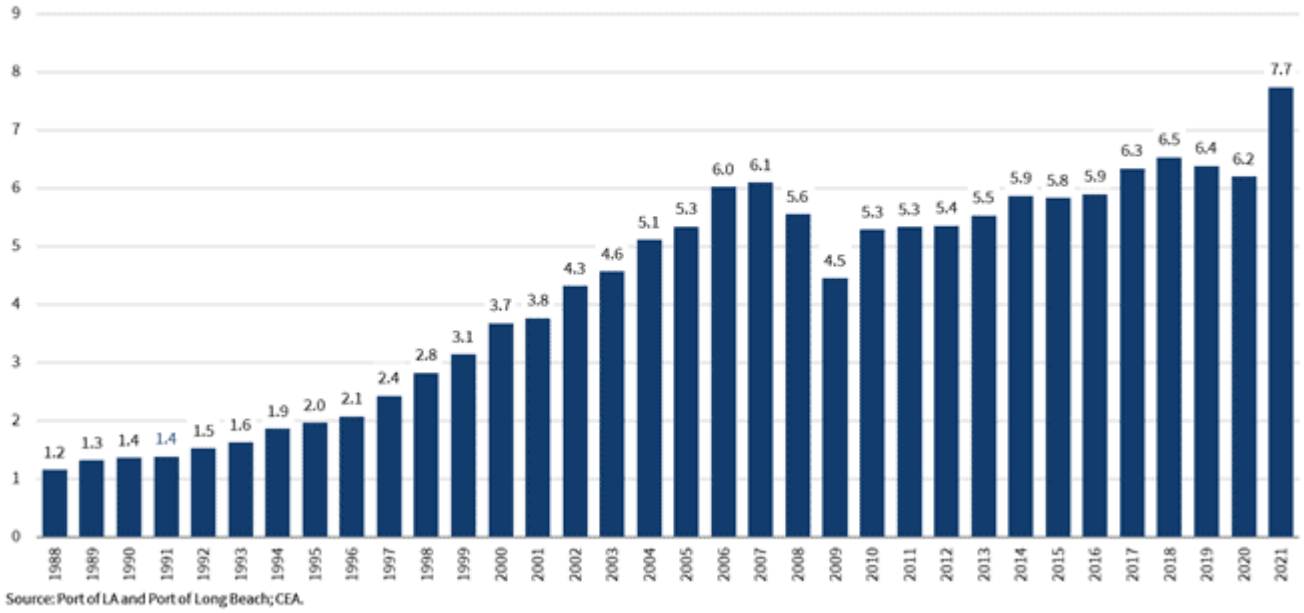
Ships at Anchor

One of the most visible and widely reported-on indicators that the demand for goods remains abnormally high is the number of container ships waiting to dock at the Ports of Los Angeles and Long Beach, which together handle 40 percent of containerized imports entering the country. Normally, there are only few container ships “at anchor” waiting to dock; on Friday, there were 75. This number is partly driven by consumer demand for goods, and also impacted by delta-related port and factory shutdowns in Asia.

Cumulative Import Volume

A closer look shows that in fact more—not less—goods are moving through our transportation and logistics supply chain, across our ports, warehouses, and stores. This can be seen by looking at the volume of containers (as measured by twenty-foot equivalent units or TEUs) coming into the Ports of Los Angeles and Long Beach (Figure 3). Between January and September, over 7 million loaded containers were imported, 18 percent higher than over the same period in 2018, which had been the previous record.

Figure 3: Port of Los Angeles and Port of Long Beach cumulative loaded imports through September
Millions of TEUs



Source: Port of LA and Port of Long Beach; CEA.

The Biden-Harris Administration will be closely tracking the cumulative number of imported containers processed for the rest of the year and will be highlighting data twice a month. Preliminary data for the first half of October indicates that the ports imported nearly 380,0000 loaded containers for a cumulative 8.1 million containers imported this year. That suggests the ports remain significantly ahead of where they were at the same point in 2018 and are on pace to break new records by year's end.

Retail Inventories

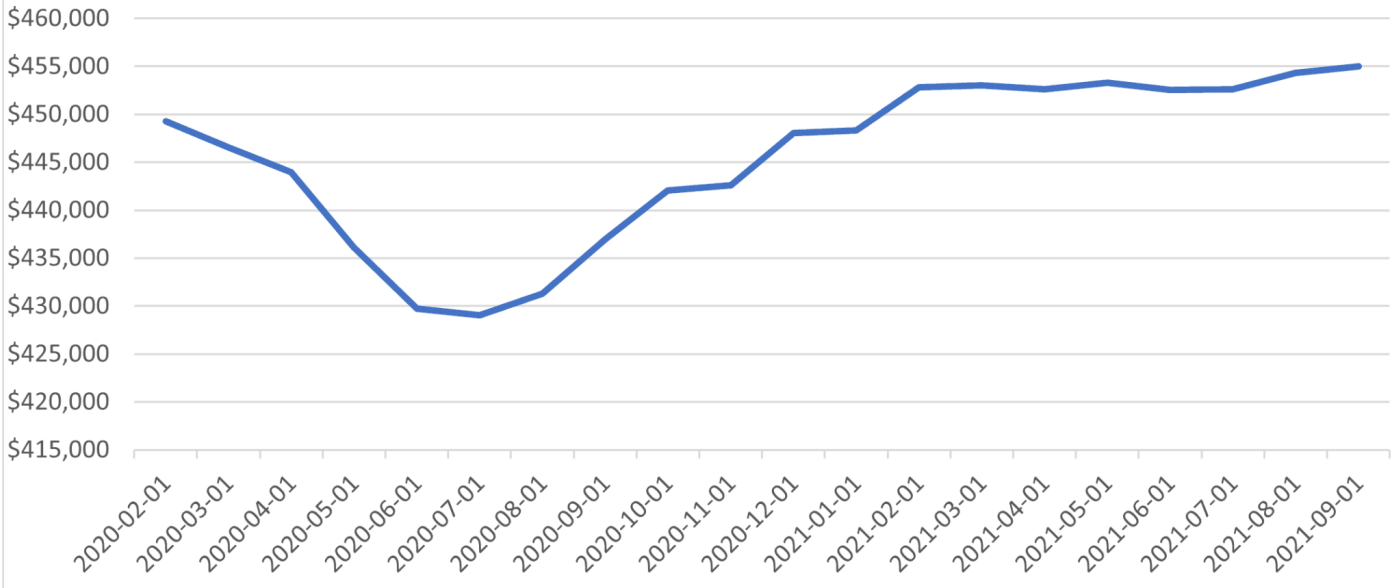
It's not enough to move goods into the country—we also need to make sure that we get them on shelves. The gold-standard U.S. Census Bureau data suggests that the rest of the supply chain is in fact succeeding in keeping store shelves stocked. Inflation-adjusted retail inventories excluding autos grew between the end of August and the end of September. And at the end of September, they were 4 percent higher than they were a year ago and are actually above pre-

pandemic levels (Figure 4). We have excluded autos from this measure because the decline in auto inventories is a result of a global semiconductor shortage affecting the autos sector worldwide, including in large auto producing countries like Germany and Japan.

Other real time measures of availability of goods in stores—such as the IRI Supply Index—similarly shows that retail stores' rates of keeping goods in-stock is 89 percent, near the pre-COVID level of 91 percent. These higher frequency data measures also suggest that, as recently as last week, there had been no deterioration in retail inventories since the Census reported the end of September retail inventory numbers.

Figure 4: Store Shelves Have Recovered to Pre-Pandemic Levels

Real Retail Inventories without Autos in Millions, February 2020-September 2021



Source: U.S. Census Bureau and U.S. Bureau of Labor Statistics. September 2021 is the advance estimate.

We will continue to track cumulative container imports, retail inventory levels, and in-stock indicators, to help us monitor the ability of this historically high volume of goods to make their way to warehouses and store shelves, comparing inventory levels to the pre-pandemic period. Throughout this work, we will remain focused on increasing velocity and fluidity along the goods movement supply chain, working in close partnership with the private sector. Our commitment to tackle bottlenecks and inefficiencies is aimed at helping to get goods to the families and businesses that need them as our economy continues to recover from the pandemic. We will also continue to closely watch the rotation from goods to services consumption, as we expect that rotation to ease pressures on the goods movement supply chain.

Lifting more Boats

As U.S. consumers continue to purchase goods at a high level, decades of neglect and underinvestment in our infrastructure have left the links in our goods movement supply chains struggling to keep up with the rapid and persistent increase in goods movement that the pandemic has generated.

This poses a collective action problem in the largely private system that moves containers of goods from ships to docks to trains and trucks to get distributed to warehouses, factories, and stores. Which is why the President issued a call to action to encourage every link in the goods movement chain to move towards a 24/7 pace to increase the volume and pace of products flowing through the system. The Ports of Los Angeles and Long Beach and International Longshore and Warehouse Union (ILWU) workers joined together to make the first commitment. Some of the countries' largest companies joined in as well—including Walmart, Target, FedEx, UPS, Home Depot, and Samsung—committing to try a new solution.

Since then, others have also joined in. The state of California stepped up, issuing an executive order to identify state-owned sites to serve as temporary warehouses and allow trucks to carry more goods. The City of Long Beach next helped create more storage space through a temporary zoning change to facilitate container storage. Just in the last week, Union Pacific, one of the two major railroads responsible for moving goods out of the port, announced it would operate its station near the ports 24/7 and offer discounts to customers for each container they moved by rail. In addition, the U.S. Department of Transportation (USDOT) and

the State of California announced a $5 billion partnership to modernize California's goods movement chain, strengthening the capacity and resiliency of the nation's key import and export hub. The result of these combined efforts will be more space available to store containers and faster paths for containers to exit and enter the ports.

These "pull" strategies are important first steps, and we will continue to do more to energize the private companies that drive the goods movement chain. This includes supporting the ports' decision to fine containers that stay on the docks too long. The system of loading boxes off ships, onto docks, onto trains or trucks, and out of the port's gates relies on collaboration between private companies including ocean carriers, terminal operators, cargo owners, freight forwarders and trucking companies. With more rail cars now operating, there is more capacity to move goods out of the ports. And some of the largest retailers have committed to move more goods at off-peak hours. The system is primed to move a historic volume of goods, with the companies that drive the goods movement chain coming together to take action.

Moving Forward

This is precisely what the Biden-Harris Supply Chain Disruptions Task Force has been set up to do: act as an honest broker to encourage companies, workers, and others to stop finger-pointing and start collaborating. Many have responded to this call, recognizing that a once-in-a-century pandemic requires us all to do our part to support our nation's economic recovery. Moving all links in the supply chain simultaneously doesn't happen overnight, but the actions being taken by every link in the chain are making a difference. These actions are starting to clear the backlogs and break down the barriers that have made it hard to move this unprecedented volume of goods.

We will also continue to track how well our nation's transportation and logistics supply chain is handling this increased flow. We will report cumulative imports through Los Angeles and Long Beach, retail inventories, and the number of ships at anchor at the two ports on a twice-a-month basis through at least the end of the year.

We need to seize this moment to strengthen our country's future competitiveness by focusing longer term on building the resilience of our nation's supply chains. That includes a goods movement chain that is more resilient, fluid, and can operate at a higher velocity. For too long, our country has underinvested in the roads, railways, ports and projects that propel goods movement. With the Infrastructure Investment and Jobs Act, we can make the fundamental changes that are long overdue for our ports, rail and roads. This is how we build back better, with government bringing workers and businesses together to leverage American ingenuity to tackle the challenges brought on by a global pandemic.

BRIEFING ROOM

FACT SHEET: The Bipartisan Infrastructure Deal Improves the Supply Chain from Ship to Store

NOVEMBER 10, 2021 • STATEMENTS AND RELEASES

Decades of neglect and underinvestment in our infrastructure have left the links in our goods movement supply chains struggling to keep up with the rapid and persistent increase in goods movement that the pandemic has generated. Further, extreme heat waves, catastrophic wildfires, and severe drought are taking American lives and livelihoods. In the last year alone, extreme weather has cost America more than $100 billion—often hitting historically underserved groups the hardest, particularly low-income communities, communities of color, and people with disabilities.

Despite global disruptions due to the pandemic, America is moving record numbers of goods from our ports to shelves and homes. The Ports of Long Beach and Los Angeles, for example, which import 40% of all containerized imports into the country—are handling the most in their history, 17% more than their previous record year.

The Administration has already taken unprecedented steps to get goods flowing from ships to shelves faster right now. That includes partnerships with the ports of LA and Long Beach to move to 24/7 operations—in addition to partnerships with labor as well as private sector leaders like Wal-Mart, UPS, Target and FedEx who are taking similar action—and the port action plan to accelerate investment in our ports, waterways, and freight networks.

The Bipartisan Infrastructure Deal will make the fundamental changes that are long overdue for our ports, airports, rail and roads to ensure that our supply chains are more resilient and efficient from future shocks. Modern, resilient, and sustainable port, airport, and freight infrastructure will help improve efficiency, reduce costs, and support U.S. competitiveness by removing bottlenecks and expediting commerce, while reducing greenhouse gas emissions and the environmental impact on neighboring communities. The plan will strengthen supply chains by investing almost $50 billion in our ports and airports on top of expanding existing programs that support freight investment across modes.

This historic legislation will:

Upgrade our nation's airports and ports to strengthen our supply chains and reduce costs, improve U.S. competitiveness, reduce emissions. Our ports and waterways need repair and reimagination to address long-term disinvestment that has weakened the resilience of our supply chains. The United States built modern aviation, but our airports lag far behind our competitors. According to some rankings, no U.S. airports rank in the top 25 of airports worldwide and no U.S. port ranks in the top 50 ports for efficiency. The legislation invests $17 billion in port infrastructure and waterways and $25 billion in airports to address repair and maintenance backlogs, reduce congestion and emissions near ports and airports, and drive electrification and other low-carbon technologies. Port infrastructure and waterway investments will double as an investment in environmental justice in and around port facilities by deploying zero-emission technologies and reducing idling and emissions, which impair air quality in adjacent neighborhoods and communities, often which are historically disadvantaged.

Repair and rebuild roads and bridges critical to trucking goods movement and lower costs for American families. Almost 70% of the goods movement volume in the United States is transported by trucks, while 1 in 5 miles of highways and major roads, and 45,000 bridges, are in poor condition. The legislation will reauthorize surface transportation programs for five years and invest $110 billion in additional funding to repair our roads and bridges and support major, transformational projects along the goods movement supply chain. The legislation makes the single largest investment in repairing and reconstructing our nation's bridges since the construction of the interstate highway system. The legislation provides States greater flexibility to address surface transportation workforce development, training, and education needs, including activities that address current workforce gaps, including training opportunities for truck drivers to support a renewed national goods movement system. Additional trained truck drivers and expanded trucking routes, will help reduce costs of everyday goods and services, saving money for American families.

Increase investments in freight rail and intermodal infrastructure to improve safety, efficiency, and job growth for long-distance inland goods movement. Freight and intermodal rail are core to the inland movement of goods through our supply chain, delivering goods over long-distances in an efficient and environmentally friendly manner. The legislation invests $5 billion in the Infrastructure for Rebuilding America grant program, which supports highway and rail projects critical to efficient goods movement and provides $5 billion to the Consolidated Rail Infrastructure and Safety Improvements grant program, which funds projects that improve the safety, efficiency, and reliability of intercity passenger and freight rail. The DOT's Railroad Rehabilitation and Improvement Financing (RRIF) program will add

landside port infrastructure as an eligible project category and make permanent the transit-oriented development project eligibility, supporting States in utilizing freight rail and intermodal investments at catalysts for economic development and job growth from their shores to their stores. This additional infrastructure will allow more goods to be transported by rail, increasing competition and reducing costs for consumers. A new $500 million railroad crossing elimination grant program will invest in safety across the goods movement chain and protect the health and well-being of the traveling public.

Make our supply chain infrastructure resilient against the impacts of climate change, cyber-attacks, and extreme weather events. Millions of Americans feel the effects of climate change each year when their roads wash out, power goes down, or schools get flooded. These effects are exacerbated when our supply chains for making and moving goods are disrupted, and those same Americans can't access the goods and services they need on a regular basis. Last year alone, the United States faced 22 extreme weather and climate-related disaster events with losses exceeding $1 billion each—a cumulative price tag of nearly $100 billion. Now that disruptions have shown how vulnerable these lines of global commerce can be due to COVID-19, the Biden Administration will not go back to business as usual. Passing this legislation increases our resilience in the face of climate change, cyber-attacks, and natural disasters. The legislation makes our communities safer and our infrastructure more resilient to the impacts of climate change and cyber-attacks, with an investment of over $50 billion to protect against droughts, floods and wildfires, in addition to a major investment in weatherization. The legislation is the largest investment in the resilience of physical and natural systems in American history.

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U.S. DEPARTMENT OF AGRICULTURE

USDA Announces Partnership with Northwest Seaport Alliance to Ease Port Congestion and Restore Disrupted Shipping Services to U.S. Grown Agricultural Commodities

Press Release
Release No. 0064.22

Contact: USDA Press
Email: press@usda.gov

SEATTLE, March 18, 2022 — Agriculture Secretary Tom Vilsack today announced plans for prepositioning containers of agricultural goods near port terminals to help improve service for shippers of U.S. grown agricultural commodities. The U.S. Department of Agriculture (USDA) is partnering with Northwest Seaport Alliance (NWSA) to enhance access to a 49-acre "pop up" site to accept either dry agricultural or refrigerated containers for temporary storage at NWSA in Seattle to reduce operational hurdles and costs, making it so they can more quickly be loaded on ships at the export terminals. The NWSA includes the marine cargo operations of the ports of Seattle and Tacoma and is the fourth-largest container gateway in the United States.

Congestion-induced impacts to vessel schedules and prioritization of returning containers empty to Asia have significantly raised barriers for exporting agricultural products in containers, resulting in lost markets and disappointed customers. The Northwest Seaport Alliance has seen a nearly 30% decline in the export of agricultural

commodities in the last six months of 2021 and the ratio of loaded versus empty container exports has shifted to predominately empty containers since May 2021.

USDA's partnership with the NWSA's existing near-dock facility at Terminal 46 in Seattle is part of the Biden-Harris Administration's Supply Chain Task Force efforts with state and local governments and builds on earlier efforts. USDA's efforts to increase capacity at the NWSA follow the Department's announcement on January 31, 2022, of a similar partnership with the Port of Oakland in California, and a US Department of Transportation partnership with the Port of Savannah in Georgia. USDA continues to seek opportunities to partner with additional ports or other intermodal container facilities to help American farmers and agricultural producers move their product to market and manage the short-term challenges while pressing the ocean carriers to restore better levels of service.

"The pandemic revealed vulnerabilities across our supply system and as the economy has made an historic recovery, it has put additional strain on the supply chain," Vilsack said. "The Biden-Harris Administration is calling out ocean carriers that are taking advantage of the situation to leverage undue profits and are treating U.S. agricultural companies and producers unacceptably. That is why we are using creative approaches to improve port operations while elevating American-grown food and fiber."

"This new pop-up port project will give Washington farmers a place to store their products so they're ready to make the next available ship," said U.S. Sen. Maria Cantwell. "As the Washington growing season ramps up over the next few weeks, this new pop up port will fill up with containers of hay, grains, peas, lentils, refrigerated dairy products, all ready to load onto ships and reach consumers across the globe. This is one tool to help address port congestion, and I will continue to work to hold foreign shipping companies responsible for the price hikes that are leaving our farmers, growers and exporters on the sidelines."

"Over the past year, The Northwest Seaport Alliance has been working closely with ag exporters to help mitigate supply chain challenges," stated Ryan Calkins NWSA co-chair and Port of Seattle Commission President. "We appreciate Secretary Vilsack's leadership and look forward to this pilot program reducing costs for ag producers and helping bring more U.S. exports to foreign markets."

"In partnership with PCMC, the NWSA has opened more than 60-acres of near-dock storage across our gateway to reduce port congestion and increase export opportunities," stated Deanna Keller NWSA Managing Member and Port of Tacoma Commission Vice-President "The partnership with the USDA will further our efforts and provide needed relief for ag producers in our region."

About the Partnership

The Farm Service Agency (FSA) will make payments to agricultural companies and cooperatives that preposition containers filled with American-grown agricultural commodities at the "pop-up" temporary site at the Port of Seattle. Specifically, FSA payments of $200 per dry container and $400 per refrigerated, or reefer, container will help cover additional logistical costs. The sign-up will be streamlined through a central application process with the details available in a Notice of Funding Availability that will be published in the coming weeks. Payments will be made in arrears and verified with the pop-up terminal records.

The benefits of relieving congestion and addressing capacity issues at ports through partnerships like this one at the NWSA go well beyond the local region, as commodities and agricultural products grown and processed from thousands of miles away flow through the Port. American farmers, ranchers, workers, rural communities and agricultural companies throughout the supply chain will benefit from efforts to restore and improve proper service by ocean carriers; and ultimately, getting safe, nutritious U.S.-grown products to consumers around the world.

USDA touches the lives of all Americans each day in so many positive ways. In the Biden-Harris Administration, USDA is transforming America's food system with a greater focus on more resilient local and regional food production, fairer markets for all producers, ensuring access to safe, healthy and nutritious food in all communities, building new markets and streams of income for farmers and producers using climate smart food and forestry practices, making historic investments in infrastructure and clean energy capabilities in rural America, and committing to equity across the Department by removing systemic barriers and building a workforce more representative of America. To learn more, visit www.usda.gov.

From the JOC:

Empties vs. exports highlights precarious balancing act for US supply chain

Dustin Braden, Shipper Engagement Manager | Apr 14, 2022 2:52PM EDT

Throughout the COVID-19 pandemic, ocean carrier business practices, particularly around exports, have come under immense media, government, and industry scrutiny.

A recent CNBC story on the volume of empties hauled by ocean carriers, supposedly at the expense of laden exports, illustrates the difficulties in pinpointing a single source of supply chain disruption and how disparate perceptions of an issue can be depending on where a party sits in the supply chain.

Importantly, the level of laden exports has been falling for two years, with the high of 13 million TEU hit in 2019, compared with 12 million TEU in 2021. The 2021 export number is down 3 percent from 2020 and 10.1 percent from 2019, according to PIERS, a JOC.com sister company within IHS Markit. There's a mix of factors at play in that decline, including bans on plastics and paper waste, the February 2021 Texas freezeout that cut into resins manufacturing, the higher value of the dollar, and increased global competition, particularly for agricultural commodities. With paper waste and plastic article exports each above 1 million TEU for many years, any decline in those sectors brings down overall US export volume.

Although agriculture interests have struggled to secure capacity — volume for oil seeds fell 6.8 percent year over year in 2021 while cotton was down 21 percent, for example — other sectors with higher profit margins have been able to post healthy year-over-year gains. Notably, US exports of furniture and bedding jumped 41 percent in 2021, autos and parts exports increased 22.2 percent, and machinery and boilers rose 14 percent. In a free market system, the exporters able to bear higher shipping costs without destroying their margins will secure capacity.

In addition to higher rates, agricultural interests are struggling because of their remote locations away from major import hubs and a dysfunctional intermodal rail network. Poor

intermodal service reliability coupled with low inventory levels have pushed countless importers to transload their containers into trucks, even when the shipper would prefer to use rail. This reduces the number of ocean containers reaching the US interior that exporters need to load their cargo while an inefficient rail network makes repositioning containers for export more cumbersome and expensive.

The role of empties in port congestion

With a thorough understanding of the dynamics behind US ocean export volume declines, it is time to return to the issue of empties, which trucking companies and logistics providers have called a major factor in US port congestion.

Empties contribute to port congestion in two primary ways: first, by taking up terminal or yard space that could be used to store loaded containers, and second by eating into chassis supply. Many in the supply chain have no choice but to store empties on chassis, which means that chassis that should be used to haul loaded imports or exports are idle instead.

This presents a catch-22 for ocean carriers that have been maligned for not carrying exports. Because empties are taking up space, there is no terminal real estate for exporters to deposit containers, and any effort to send sweeper ships to clear out terminals and improve port operations would then skew the number of loaded exports versus empties hauled by the carriers, making them a target of government and private interests.

Because US law currently requires that ocean carriers provide "common carriage" to all parties, it would be unacceptable and illegal for carriers to outright prioritize empties over exports. While the US Federal Maritime Commission is currently auditing 16 ocean carriers for violations of common carriage, newcomers to the trans-Pacific trade are under greater scrutiny from the agency's Bureau of Enforcement. This, in tandem with the aforementioned factors reducing US exports, could suggest that the largest carriers serving US trade are complying with common carriage requirements of US shipping law.

Regardless of the outcomes of the audits, this most recent episode around empties highlights the dizzying complexity of the modern supply chain, wherein gains for drayage truckers and marine terminals can be interpreted as a loss for exporters.

Contact Dustin Braden at dustin.braden@spglobal.com and follow him on Twitter: @dbrades89.

Windward: Fifth of World's Containerships are Stuck in Port Congestion

Shanghai's lockdowns and port congestion is impacting containerships globally

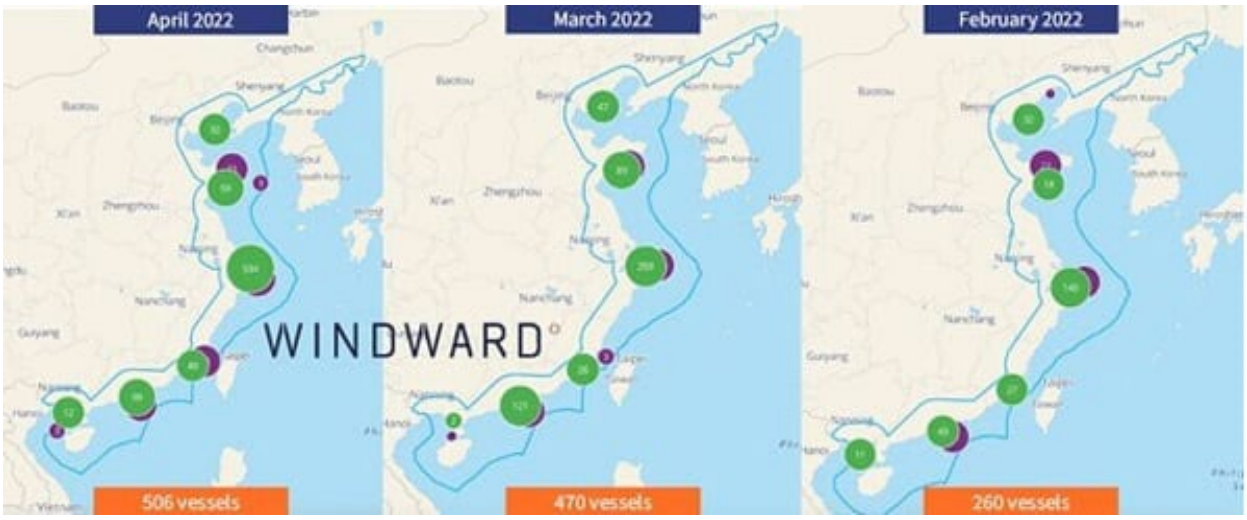
Maritime Executive, 4/19/22

After signs of progress that the backlogs of containerships stacked up outside ports might be easing, it appears that the trend is reversing itself. With lockdowns impacting the movement of vessels at the major Chinese ports, the congestion appears to be spreading to other ports around the globe.

New data from Windward, the maritime AI company, shows that a fifth of all the world's containerships are stuck in port congestion. Further, they calculate that a quarter of all the ships are specifically stuck at Chinese ports. Carriers have been struggling to manage their schedules which have already shown low reliability. Now, there are increasing reports of the number of containerships diverting away from Shanghai, but that is adding to the delays at other ports such as Ningbo-Zhoushan due to the added volumes, or carriers are resorting to blanked sailings.

The increases align with the lockdown in Shanghai that began at the end of March. Just before that, Sea-Intelligence reported the first improvement in schedule reliability in two years. While nearly two-thirds of all containerships were still behind schedule in February 2022, Sea-Intelligence's monthly Global Liner Performance report highlighted that reliability returned to levels not experienced since mid-2021. Further, they reported that the number of days vessels were behind schedule while still high had also improved.

"The lockdowns in China are heavily impacting the congestion outside the country's ports," writes Windward based on data pulled for its Maritime AI platform and released on April 19. "The number of container vessels waiting outside of Chinese ports today is 195 percent higher than it was in February."



Congestion off China's ports in the last three months from Windward's Maritime AI data

Windward uses three images each providing a 48-hour snapshot of container vessels waiting outside of China's ports to illustrate their analysis. They compare February when there were no lockdowns in China

to March when Shenzhen was in lockdown, and now April as the lockdown reached Shanghai a city of 25 million people and home to the world's busiest container port.

"The trend is clear – in the April and March snapshots, there were 506 and 470 vessels, respectively, stuck outside of Chinese ports. In February, that number was only 260. In essence, lockdowns in China have nearly doubled the congestion outside the country's ports," concludes Windward.

Chinese officials continue to insist that the port of Shanghai is open and functioning. They point to the use of a closed-loop where port workers were placed inside a bubble separated from the city and people coming and going to the port. Truckers have been required for example to have negative COVID-19 tests to enter the port and truck traffic has been greatly reduced. Still, the ports are experiencing shortages of employees due to the spread of the virus.

While it would seem that with so many vessels stuck off China that other ports might be seeing relief, the opposite appears to be happening with schedules being disrupted for many of the major shipping routes. The Marine Exchange of Southern California's data for example shows the number of container vessels again on the rise. On April 4, just as the lockdowns began in Shanghai, California reached a new low on its containership traffic with a total of 33 ships heading to Los Angeles and Long Beach. Today, by comparison, the Southern California backlog has jumped to 51 containerships, either near shore or steam toward the ports.

"When looking at the global picture, between April 12-13, 2022, 1,826 container vessels were waiting outside of ports worldwide," reports Windward. "That's 20 percent of all container vessels globally!"

Global port congestion from Windward's Maritime AI data

Windward's Maritime AI data shows that 506 vessels are waiting offshore at China's ports which represents more than a quarter (27.7 percent) of all the ships waiting outside of ports around the world. For comparison, in February, Windward calculates that the backlog off China's ports accounted for about a sixth (14.8 percent) of the vessels stuck in port congestion worldwide.

Shanghai has begun to report some progress containing the recent wave of the virus and a decline in the number of daily cases. The health authorities have begun to relax some restrictions permitting factories to resume work using a closed-loop keeping workers onsite but it is unclear when the port can begin to regain its normal productivity. Even then there are fears of another ripple effect around the globe as shippers rush to move goods that have been stuck in the supply chain and carriers rush vessels to international ports seeking to restore disrupted schedules.

From American Shipper: (week of June 6, 2022)

Los Angeles/Long Beach: Competition heats up for America's gateway

Despite East Coast gains, Los Angeles/Long Beach still handles double the imports of New York/Jersey

Los Angeles/Long Beach wasn't always the container gateway to America. That crown used to belong to New York/New Jersey. Containerization combined with rising imports from Asia and transcontinental rail swung the pendulum to the West Coast over recent decades — although now the pendulum is swinging back to the east.

The first American trading ship called in California's San Pedro Bay in 1805. By the time California became the 31st state in 1850, port activity was flourishing. Los Angeles' population surged in the early 20th century and boosted business further. The main channel was dredged in 1912, two years before the Panama Canal opened.

As shipping switched to containers in the 1960s and 1970s, the East Coast retained its dominance. According to historical data from the Bureau of Transportation Statistics (BTS), East and Gulf Coast ports still handled 66% of the country's containerized trade in 1981. It wasn't until 1989 that the West Coast took the lead, according to the BTS data.

Data on the East Coast/West Coast split is also compiled by the McCown Report, covering the country's top 10 ports. According to McCown, the West Coast's share of imports had risen to 65% by 2000. Los Angeles/Long Beach handled 4.9 million twenty-foot equivalent units that year, more than triple New York/New Jersey's volumes.

At the turn of the century, Los Angeles/Long Beach had clearly taken the crown. But the contest was far from over.

East Coast claws back market share

American imports from overseas surged and the size of container ships escalated. Between 2000 and 2015, imports to Los Angeles rose 57%. Over the same period, New York/New Jersey container imports rose 113%; those to Savannah, Georgia, by 288%; to Norfolk, Virginia, by 90%; and to Houston by 148%.

In 2015, the West Coast's share of the top 10 ports' imports had pulled back to 57%. Then came the opening of the expanded Panama Canal, allowing larger vessels to transit from Asia to the East Coast, and the gap between the coasts narrowed even further. By last year, the East Coast had a 49% share.

According to McCown, "The transition from East/Gulf Coast ports representing 36.5% of total inbound volume in 1995 to 43.3% in 2015 — the last full year before the expanded Panama Canal opened — was equivalent to an average shift of 34 basis points per year.

"The subsequent change from 43.3% [in 2015] to 48.8% in 2021 was the equivalent of 92 basis points per year, underscoring that a canal allowing container ships more than three times larger is accelerating a shift that will continue."

During a 2020 interview with American Shipper, Deutsche Bank transportation analyst Amit Mehrotra maintained that the pull of the East Coast was a secular trend. "Keep in mind that 60% of the population lives east of the Mississippi," he said. "At the end of the day, if you come into the West Coast, you're going to have to rail a lot of it east, to where the demand centers are.

"With the expansion of the Panama Canal and the port projects on the East Coast that allow for bigger ships, and with the majority of the population in these states, it disproportionately favors the East Coast ports."

The COVID era and what's next

The COVID area has brought more changes. In the first half of 2021, as shippers raced to bring in more cargo, Los Angeles/Long Beach gained favor. Then congestion exploded in Southern California. More cargo shifted to the Panama Canal route. And concerns over the outcome of the West Coast labor negotiations gave another advantage to the East Coast.

In the three months through April, the East and Gulf Coast actually took a slim lead, with a 50.2% share. Even so, Los Angeles/Long Beach remains by far the single biggest gateway, with double the import volume of New York/New Jersey.

Looking forward, McCown believes the East Coast option makes more sense for many importers.

"When I started working at McLean Industries in 1980, the trans-Atlantic trade for U.S. Lines was almost as big as the trans-Pacific trade," he told American Shipper.

"The other big factor [beyond rising Asian imports] that helped the West Coast was the growth of double-stack train service, which allowed the Eastern population centers to be reached faster than all-water service [via the Panama Canal].

"But from a pure cost, emissions and congestion standpoint, today way too many boxes come over the West Coast," argued McCown, who believes that "if you solve just for those three factors and ignore transit time, only around 25% of inbound boxes should come in via the West Coast."

Biden slams ocean carriers ahead of Port of LA speech

Speech may tout victories but president's task force has so far provided mixed results

Ahead of President Joe Biden's planned speech at the Port of Los Angeles on Friday, the White House released a video of the president on a phone call with retailers who are complaining about the high cost of ocean shipping.

"One of the big reasons why prices are going up is the cost of shipping things across the Pacific, in particular," Biden says during the call. "There's only nine major ocean line shipping companies who ship from Asia to the United States. These companies have raised their prices by as much as 1,000%."

The video ends with Biden calling on Congress to pass the Ocean Shipping Reform Act, which the U.S. House of Representatives is expected to vote on as early as next week. "I expect it to pass. And I'm looking forward to signing it," Biden states.

In his upcoming speech, Biden is expected to recount efforts by his administration to ease the supply chain disruption and high shipper costs that have dominated much of his tenure.

"President Biden must assure that the international ocean carriers, as a condition of bringing imports from China and other countries into the US through US ports (and announcing billions of dollars of profit each quarter), provide dependable and affordable ocean transportation for our agriculture exports to the world," Peter Friedmann, executive director of the Agriculture Transportation Coalition, told FreightWaves in anticipation of Biden's speech.

Biden has so far devoted a significant amount of time in office to dealing with supply chain disruption. The following is a recap of some of the major actions the administration has taken to alleviate supply chain disruptions at the ports.

24/7 operations

When the ports of Los Angeles and Long Beach expanded their gate hours in September, it provided a toehold for companies like Walmart, FedEx and UPS to follow suit in October with plans to expand their container operations at the ports as well — part of the administration's effort to unclog the massive container bottleneck at the country's largest container terminal complex.

The effort was aided by ocean carriers such as CMA CGM, which opened its terminal gates to 24/7 operations and offered a $100-per-container incentive to intermodal truckers and importers to move containers off its dock within eight days. And railroads have been operating 24/7 port operations for years.

But because of the number of other players connected to port operations — including warehousing and drayage trucking and port labor — moving to 24/7 operations was a steep hill to climb.

"I think in concept when you have huge volumes, [going 24/7] sounds like a very good solution," said Tim Lynch, senior director at the law firm Morgan & Lewis, speaking at a recent meeting of the National Industrial Transportation League.

"The difficulty there is, while there were circumstances where longshoremen were there ready to load or unload, the trucks weren't coming in because the drivers were out of hours or they couldn't find chassis. So just having the ports operating 24/7 without the rest of the supply chain accommodating that, it's sort of a hollow victory."

Pop-up container yards

In November, the Biden administration helped fund the Georgia Ports Authority's emergency overflow "pop-up" container storage lots at sites miles from the actual port areas by redirecting $8 million in federal funds.

The lots proved successful in alleviating congestion at the Port of Savannah, and the port task force, along with the U.S. Department of Agriculture and the Port of Oakland, replicated the concept earlier this year with funding for a new 25-acre container staging area near the port reserved specifically for agriculture exports.

In addition to paying 60% of the cost to start up the latest "pop-up" container yard, USDA is providing shippers that use the yard a $125-per-container subsidy to offset the logistical costs of getting the containers there. A similar partnership with USDA was created in March at the Northwest Seaport Alliance, which includes the ports of Seattle and Tacoma, with subsidies to shippers of $200-$400 per container.

"Based on what I'm hearing, these have been useful," John Butler, president and CEO of the World Shipping Council, told FreightWaves. "There's always a question of scale, because you can only handle only so much cargo that way. But it has effectively been deployed by the administration and I think it's making a difference."

Infrastructure funding

Biden's transportation chief, Pete Buttigieg, visited the ports of Los Angeles and Long Beach in January, using the visit to promote record-setting cargo volumes while vowing to address the potential for anticompetitive behavior within the ocean container markets.
He also promoted historic investments in maritime infrastructure, from funding authorized within the $1.2 trillion infrastructure bill signed by the president in November.

"As long as the pandemic persists, as long as we are making up for decades of past disinvestment, we are going to see impacts on shipping times and shipping costs," Buttigieg stated.

To counter those impacts, Buttigieg cited a $52.3 million grant to support an on-dock rail project at the port of Long Beach. The grant was part of a $241 million package of 25 port projects awarded in 19 states.
In May, DOT announced the most annual funding from its Port Infrastructure Development Program — $684 million — in the department's history.

"[Those investments] take time to implement; they're a long-term set of tools," Butler said. "That was a bipartisan effort, and I think it's one of the most appropriate ways the federal government can address these supply chain issues. We know we're behind on maintaining and expanding infrastructure, and you can't have efficient end-to-end supply chains unless we keep up."

Freight Logistics Optimization Works

To build on efforts and improve the flow of goods through physical infrastructure, the White House announced in March a Department of Transportation data-sharing effort called Freight Logistics Optimization Works (FLOW), a pilot freight data exchange aimed at improving the digital infrastructure connecting the supply chain.

The pilot — which administration officials hoped would result in a proof-of-concept freight data exchange by the end of the summer — had 18 initial participants, including ports, shippers, trucking, warehousing and logistics companies.

"These key stakeholders will work together with the Administration to develop a proof-of-concept information exchange to ease supply chain congestion, speed up the movement of goods, and ultimately cut costs for American consumers," a White House fact sheet stated.

Since the concept's launch, however, little progress has been announced publicly — but there has been skepticism and concern.

A month after FLOW was announced, Sen. Roger Wicker, R-Miss., sent a letter to Buttigieg asking for more information on how FLOW would operate, and the extent to which the government would be involved in overseeing it.

"Any work to enable greater efficiencies in the freight transportation system must be usable for the enormous number of stakeholders who work in, and rely on, the freight network," Wicker wrote. "To be successful, the FLOW initiative should adopt a balanced, open-minded approach that incorporates feedback from a broad array of transportation stakeholders and shippers."

Trucking leasing task force

The administration's multifaceted Trucking Action Plan unveiled in December to bolster the trucking sector includes a Driving Good Jobs initiative launched jointly by DOT and the Department of Labor. The goal of the initiative is to raise the bar not only on driver recruitment but on retention — including studying the issue of truck driver pay and unpaid detention time.

It also directs the Federal Motor Carrier Safety Administration to create a truck leasing task force, applicants for which FMCSA began accepting in April. Tasks that the law requires the panel to accomplish include reviewing the agreements available to drayage drivers at ports.

Port drayage has been a sector of trucking generating a high number of complaints about predatory leasing practices.

“The Truck Leasing Task Force represents one of the important actions the administration is taking to improve the trucking industry,” Buttigieg said in announcing the program. “America’s truck drivers need and deserve fair leasing agreements, and this work will help ensure that leasing is aboveboard.”

Hear it again: Congress looks to fix supply chain kinks, including in the Northwest

JUN 15, 2022 at 4:10 PM

KUOW/NPR: KUOW - Hear it again: Congress looks to fix supply chain kinks, including in the Northwest

The Pacific Northwest, like the rest of the world, is dealing with supply chain issues.

An increased demand for foreign goods, combined with a worker shortage, and a lack of port terminals and shipping containers is making it more expensive and time-consuming to move products.

Congress just took a step aimed at ironing out one slice of that mess: It's The Ocean Shipping Reform Act - a bill that passed with bipartisan support yesterday in the House of Representatives, and is now heading to the President's desk.

Anderson Hay and Grain in Ellensburg grows hay — as you might expect. Around 80% of the company's sales come from the export market, shipping hay around the world to feed cows, horses, and other livestock.

But in recent years, that's gotten harder.

"A lot of priority has been given to ship empty containers back to Asia quickly," said Mark Anderson, the CEO of Anderson hay. "It's still incredibly profitable for the carriers, even if they're anchored, waiting in line to get unloaded. So that's been incredibly unusual and difficult."

Last year, the Port of Seattle saw a 126% increase in wait times for ships.

That situation means goods being imported into the US are coming in at a slower pace and are more expensive. Agriculture exporters like Anderson are facing price hikes and shipping companies that don't want to load their containers with more expensive exports.

Anderson said the cost of shipping has, in some cases, doubled for him within the last five years. Other companies just aren't shipping to where his customers are anymore.

"We've worked for years to develop a lot of these markets," Anderson said. "And to not be able to service them competitively is really difficult."

Congress has proposed a fix for the exporting problems people like Anderson are facing: A new law called the Ocean Shipping Reform Act.

The law would boost the authority of the Federal Maritime Commission by giving the agency more regulatory power. It would also restrict shipping companies' ability to send empty containers to other countries to be refilled, allowing American exporters to be more competitive in the international market.

A version of the bill passed with bipartisan support in the Senate last week, and similar legislation passed in the House last year. Once the differences in those bills are hammered out, it's expected to eventually wind up on the President's desk to be passed into law.

"Right now, the supply chain isn't working," said U.S. Senator Maria Cantwell (D-WA) on the Senate floor. "Our ports have been clogged, shipping companies have struggled to keep up with demand, and the costs of American exporters, who are trying to get hay, milk, and apples to the global market, have gone through the roof."

But opponents say that the bill won't ease the supply chain crunch.

The World Shipping Council, which represents the ocean shipping liner industry, argues that the law threatens to "make existing congestion worse."

The groups said Congress should be "making investment in port infrastructure" instead.

Sen. Cantwell said that the government is already making that investment through the infrastructure bill, which was signed into law in November.

US politicians maintain the Ocean Shipping Reform Act is going to help solve our supply chain issues. Meanwhile, the World Shipping Council says the proposed law won't solve the real problems the industry is facing.

So, who's right?

Everyone, and no one, said Bindiya Vakil. Vakil is the CEO and cofounder of Resilinc, which provides supply chain monitoring, resilience mitigation, and risk management services.

She said there's no silver bullet for fixing the supply chain. In her view, it will take a collaborative, global effort to solve the issue; the Ocean Shipping Reform Act may help, but it's only one part of a larger system that needs improvement.

PORT OF TACOMA

OFF-DOCK CONTAINER SUPPORT FACILITY PROJECT CRITICAL AREAS PRESERVATION ORDINANCE ANALYSIS

APPENDIX B: PROJECT SITE AND WETLAND DELINEATION MAP

Grette Associates LLC
ENVIRONMENTAL CONSULTANTS
2102 North 30th Street, Suite A
TACOMA, WA 98403
(253) 573-9300
gretteassociates.com

CLIENT:
PORT OF TACOMA

PROJECT #:	323.005
DESIGNED BY:	CW
CHECKED BY:	SM
DATE:	02/12/2020
DATE:	02/12/2020

PORT OF TACOMA
OFF-DOCK CONTAINER YARD AND STORMWATER PROJECT
WETLAND ANALYSIS REPORT

SITE ADDRESS: PIERCE COUNTY, WA

DRAWING SCALE: SEE SCALE BAR

WETLAND DELINEATION MAP

SHEET 2 OF 2

PORT OF TACOMA

OFF-DOCK CONTAINER SUPPORT FACILITY PROJECT CRITICAL AREAS PRESERVATION ORDINANCE ANALYSIS

APPENDIX C: LOWER WAPATO CREEK ADVANCE MITIGATION SITE MAP

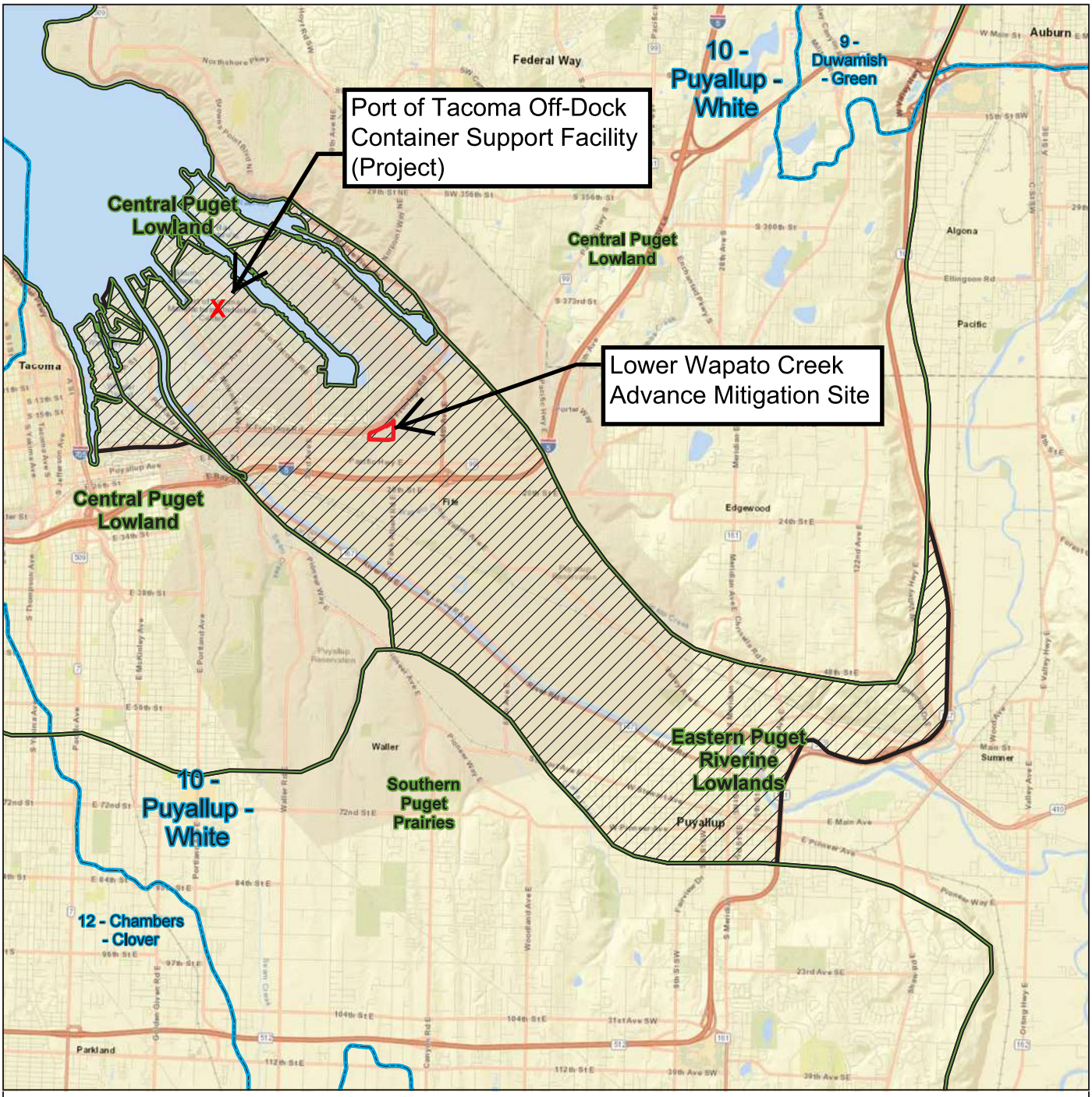


Figure 3. Geographic Service Area

Lower Wapato Creek Habitat Project

Port of Tacoma

DATE: 1/25/2021

Legend

- Project Site
- Geographic Service Area
- Ecoregions
- Water Resource Inventory Areas

N W E S

8,000 0 8,000

Feet

Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source: ESRI, DeLorme, USGS, Intermap

Projection: NAD 1983 StatePlane Washington South FIPS 4602 Feet

Port of Tacoma

Document Name: Fig2_SA_revised 11/6/2020 9:56:37 AM smm

PORT OF TACOMA

OFF-DOCK CONTAINER SUPPORT FACILITY PROJECT CRITICAL AREAS PRESERVATION ORDINANCE ANALYSIS

APPENDIX D: LOWER WAPATO CREEK ADVANCE MITIGATION SITE USE PLAN

Lower Wapato Creek Advance Mitigation Site

Use Plan

for

Port of Tacoma's Off-Dock Container Support Facility

Corps Reference No. NWS-2020-557-WRD

June 16, 2022

1. Project Description

The Port of Tacoma's (Port's) Off-Dock Container Support Facility Project (Project) will develop approximately 24.49 acres (ac) of near-dock property to use as an empty container and chassis storage, a reefer (refrigerated container) pre-trip wash facility, and a wheeled reefer valet drop-off location. Other site features will include truck entry and exit gates on Thorne Road and Maxwell Way with a guard shelter at the Maxwell Way location, an office trailer, perimeter security fencing, site lighting and power, security cameras, a railroad crossing (between Parcel 85 & 87), a roadability area, and stormwater improvements. Work will include clearing and grubbing, earthen fill, isolated excavation, subgrade preparation, base course and pavement systems, stormwater infrastructure, and other utilities. Stormwater treatment will be by overland sheet flow conveyance and at-grade treatment. The Project site is located in Tacoma, WA at 1451 Thorne Road (Port Parcel 85 [7.64 ac]), 1721 Thorne Road (Port Parcel 87 [8.36 ac]), and 1702 Port of Tacoma Road (Port Parcel 72 [8.49 ac]). Refer to Figure 1 for the permit application drawings, including a vicinity map. The Project proposes to permanently impact (clear, grub, and fill) 4.42 ac of Category III (palustrine forested [PFO], depressional) wetland.

2. Existing Conditions of Wetlands and Other Aquatic Resources

A wetland delineation was conducted for the Project and is documented in the *Port of Tacoma Off-Dock Container Yard and Stormwater Project Wetland Analysis Report (*Grette & Associates, September 2021). The Project site includes 4.42 ac of Category III (PFO, depressional) wetlands as summarized in Table 1 and depicted on Figure 2.

Table 1. Existing Conditions of Wetlands and Buffers

Resource identifier	Wetland area (acres)	Buffer area (acres)	Ecology rating	Local jurisdiction rating	Cowardin classification	HGM classification
Wetland A (Parcel 85)	73,258 SF (1.681 ac)	Uninterrupted: ~37,400 SF Developed: ~96,600 SF Total: ~134,000 SF	III	III	PFO	Depressional
Wetland B (Parcel 72)	119,289 SF (2.738 ac)	Uninterrupted: ~58,700 SF Developed: ~63,300 SF Total: ~122,000 SF	III	III	PFO	Depressional
TOTALS	**4.419 ac**	**Uninterrupted: 2.206 ac Developed: 3.671 ac Total: 5.877 ac**				

Two wetlands were delineated on the Project site *(*Grette & Associates, September 2021); Wetland A is located on Parcel 85 and Wetland B is located on Parcel 72. The wetlands have formed in the fill layer above the historic Commencement Bay tideflats. Surrounding land uses are industrial and port maritime uses. The wetlands are palustrine forested wetlands and are hydrogeomorphically classified as depressional wetlands. These features are situated within the undeveloped portions of the subject parcels.

Vegetation

The forest vegetation community predominantly consists of black cottonwood (*Populus balsamifera*) with an understory consisting of native and non-native shrub species. Beneath the sub-canopy, vegetation consists of a near monoculture of slough sedge (*Carex obnupta*).

Hydrology

Hydrology for Wetland A is primarily provided by a high groundwater table and direct precipitation. Additionally, Wetland A likely collects periodic stormwater runoff that sheet flows towards the wetland. No direct stormwater input (e.g., culvert) in Wetland A was identified during Grette Associates site assessments. Hydrology for Wetland B is primarily provided by stormwater runoff (sheet flow), a high groundwater table, and direct precipitation. During the site assessment, surface water, shallow groundwater, and soil saturation were observed in both wetlands.

Grette Associates did not identify any potential area that would suggest these features contain an outlet that discharges surface water offsite. This assessment and determination are also supported by the elevations recorded in the topographic survey. The elevations of the roadside ditches adjacent to the subject parcels are approximately 12 inches higher in elevation and slope towards the wetland features.

Hydric Soils

Soils observed within Wetlands A and B consisted of an upper layer (0-2 inches) of very dark brown (10YR2/2) sand and a lower layer (2-20 inches) of very dark grayish brown (10YR3/2) sand. No redox features, depleted matrix, hydrogen sulfide odor, or any other hydric soil indicators (i.e., A and S indicators) were observed. Given the vegetation and prolonged inundation and/or soil saturation (14 consecutive days within the growing season), these soils meet the definition of a hydric soil. Based on the historical development activities, the soils (i.e., dredge spoils) within these wetland features were evaluated as an atypical situation.

No other aquatic resources are present within the Project area.

3. Avoidance and Minimization of Wetland and Other Aquatic Resource Impacts

The Project is to develop an off-dock container support facility and must be located near marine cargo terminals (near-dock) for the facility to be efficient, functional, and operational. In addition, the near-dock location reduces truck trip distances, traffic congestion, and associated fossil fuel use and emissions. There is no other suitable near-dock location in close proximity to the Port's Washington United, Husky, West Sitcum, and Pierce County container terminals. In addition, the facility must be at least the proposed size for it to operate efficiently and handle the quantity of containers and operations required for the Project. Therefore, there are no practicable methods for reducing wetland impacts in this area while still meeting Project goals.

4. Unavoidable Aquatic Resource Impact Acreage

The acreage of unavoidable wetland impacts associated with the Project are summarized in Table 2 and depicted on Figure 2.

Table 2: Anticipated Unavoidable Impacts to Wetlands

Wetland Identifier	Wetland Area (acres)	Permanently Filled Wetland Area (acres)	Temporarily Impacted Wetland Area (acres)	Indirect Impact Area (acres)	Cowardin Classification	HGM Classification	Ecology Rating	Local Jurisdiction Rating
A	1.681	1.681	0	0	PFO	Depressional	III	III
B	2.738	2.738	0	0	PFO	Depressional	III	III
TOTALS	**4.419**	**4.419**	**0**	**0**				

5. Impacted Wetland and Aquatic Resource Functions

Both Wetlands A and B, along with their associated buffer, will be entirely filled and all associated functions will be lost as summarized below.

- Water Quality & Hydrologic Functions – As discussed in Section 2, wetland hydrology is primarily provided by a high groundwater table, direct precipitation, and to a lesser extent, stormwater runoff. No surface water is discharged offsite and therefore water infiltrates onsite. The Project will collect precipitation and direct surface flow to constructed biofiltration systems that will treat stormwater and control flow rates prior to discharging to the City of Tacoma's municipal stormwater system.

- Habitat Functions – The degraded, isolated wetlands are a forest vegetation community predominantly consisting of black cottonwood (*Populus balsamifera*) with an understory consisting of native and non-native shrub species. There is no interspersion of habitats, corridor connectivity, or plant species richness, and there is no fish habitat. The majority of the buffers are interrupted by roads, railroads, and developed buildings, pavement, and compacted gravel areas.

6. Wetland and Other Aquatic Resource Compensation Site Selection Rationale

The Project application identifies two options for wetland compensation which include the Port of Tacoma's Lower Wapato Creek Advance Mitigation Site (Lower Wapato Creek AMS) or the Upper Clear Creek Mitigation Bank. This document is the proposed Use Plan for the Lower Wapato Creek AMS.

The Project is located within the service area of the Lower Wapato Creek AMS which is the portion of Water Resource Inventory Area (WRIA) 10 – Puyallup-White within the Eastern Puget Riverine Lowlands ecoregion from Commencement Bay eastward to State Route (SR) 512/167, as shown on Figure 3, Geographic Service Area. As of October 27, 2021, no credits have been used from the Lower Wapato Creek AMS; therefore, the appropriate credits are available for the Project.

There are no practicable methods for reducing wetland impacts or performing on-site mitigation on the Project site while still meeting the Project goals. Compensating for the wetlands that are impacted by the Project meets the following goal of the Lower Wapato Creek AMS:

- "Replace aquatic resource (wetland) acreage and functions that are lost or impacted by future Port projects."

Wetlands A and B at the Project site were specifically listed as potential future impacts/mitigation needs in the Lower Wapato Creek Habitat Project Advance Mitigation Plan, Section 3 (Geographic Service Area), Table 2 – Potential Future Development Sites (Port of Tacoma, March 2021).

7. Wetland and Other Aquatic Resource Functions Compensated at the Advance Mitigation Site

The impacted Project wetlands (Wetlands A & B) are isolated, depressional, degraded, Category III forested wetlands that provide minimal water quality, hydrologic, and habitat functions, and have highly interrupted buffers. The Lower Wapato Creek AMS is a diverse mosaic of interconnected estuary, emergent and forested wetlands, and riparian habitat. The mitigation site also removes a fish passage barrier, reduces streamflow velocities, and improves flood conveyance, water quality, fish and riparian habitat, and natural stream processes.

The Lower Wapato Creek AMS will offset and be an improvement to the water quality, hydrologic, and habitat functions that will be lost at Wetlands A and B. Specifically, the restoration objectives of the Lower Wapato Creek AMS include the following:

- Objective 1: Restore Wapato Creek from a straight ditch to a meandering, tidally-influenced channel with a functioning floodplain and in-stream habitat features;
- Objective 2: Re-establish intertidal mudflats and hydrologically connected estuarine emergent and palustrine forested wetlands;
- Objective 3: Establish and preserve a dense forested riparian upland; and
- Objective 4: Improve fish passage at the 12th Street East crossing.

Water Quality Functions

Water Quality will be improved at the Lower Wapato Creek AMS over the impacted Project wetlands by the reestablishment of approximately 10 ac of mudflat, freshwater and/or estuarine emergent, and forested wetlands, and approximately 8.5 ac of associated forested upland riparian buffer habitat.

In general, the diverse assemblage of emergent vegetation, woody-stemmed shrubs and trees, large woody material (LWM) and other surface roughening features at the Lower Wapato Creek AMS act to remove pollutants. The installation of these features roughen the wetland and buffer surfaces to slow flow, increasing the Lower Wapato Creek AMS wetlands and buffer's abilities to remove sediments, nutrients and toxins from surface flows prior to entering Wapato Creek. The Project-impacted wetlands provide some water quality function; however, the size and isolation of those wetlands means the Lower Wapato Creek AMS provides more water quality function to the region as a whole.

Hydrology Functions

The Lower Wapato Creek AMS rerouted the creek channel from its previously ditched alignment, and re-establishes approximately 10 ac of intertidal mudflat, freshwater/estuarine emergent and forested wetland habitats adjacent to the channel, and reconnects Wapato Creek to a functional floodplain. The reconfigured creek channel, re-established floodplain, installed LWM structures, and native shrub and forested habitats increases the mitigation site's ability to regulate flood flows, provides additional flood storage capacity and helps increase overall hydrologic functions.

Similar to the Project-impacted wetlands (Wetlands A & B), hydrology at the Lower Wapato Creek AMS is influenced by a high groundwater table and precipitation; however, the hydrologic function at the Lower Wapato Creek AMS is much higher than the Project site. The Project-impacted wetlands are the result of being

the lowest area (topographically) within the Project's immediate surrounding area. The Lower Wapato Creek AMS improves area hydrologic function by reestablishing approximately 10 ac of wetlands influenced by groundwater, precipitation, stream flow, and tidal interactions. The Lower Wapato Creek AMS creates a substantial increase in the flood storage capacity within the Wapato Creek Base Flood Elevation (BFE) and the Puyallup River Overtopping BFE; an increase of 28.61 acre-feet and 79.78 acre-feet, respectively (GeoEngineers 2020, Port of Tacoma 2021).

Habitat Functions

Habitat functions at the Project-impacted wetlands (Wetlands A & B) are extremely limited. The size and isolation of the wetlands provides little habitat capable of sustaining viable populations of wildlife, and there is no connectivity to a fish-bearing stream or watercourse. In addition, vegetation consists of near monocultures in each vegetation stratum (i.e., black cottonwood in tree canopy, Himalayan blackberry in sub-canopy, and slough sedge at ground level).

Habitat functions at the Lower Wapato Creek AMS will be an improvement over the Project-impacted wetlands because the restoration actions remove invasive plants (including root stock and seed bank), increase the diversity and areal extent of aquatic habitats, install a diverse assemblage of native trees, shrubs, grasses, and emergent species, provide approximately 230 pieces of LWM structures, re-meander the creek channel and reconnect the floodplain, add off-channel habitat, and provide habitat interspersion and connectivity between the different habitat types. The existing mature deciduous trees at the Lower Wapato Creek AMS were retained to the greatest extent practicable and provide key benefits (e.g., shade, forage opportunity, etc.) while the rest of the site establishes and matures. Approximately 230 pieces of LWM (habitat structures) are installed throughout the wetland complex, providing many opportunities for fish and wildlife to forage and find refuge. The Lower Wapato Creek AMS increases the overall biodiversity of the area and adds significant habitat availability to the Wapato Creek wildlife corridor. The Lower Wapato Creek AMS habitat functions will increase substantially for aquatic, amphibian, terrestrial, and avian species as compared to the current habitat functions provided by the Project site.

8. Wetland and Other Aquatic Resource Functions Not Compensated at the Advance Mitigation Site

Not applicable. All wetland functions will be compensated for at the Lower Wapato Creek AMS. In addition, the advance mitigation site provides added ecological benefit by offering fish, estuarine, and riparian habitat, and floodplain improvements. Refer to the Lower Wapato Creek Habitat Project, Advance Mitigation Plan (Port of Tacoma, March 2021) for further details.

9. Credit Use Ratios

The Lower Wapato Creek AMS wetland credits (calculated in acre-credits) were generated using the mitigation ratio method (Ecology and USACE 2013). The acre-credits were generated based on the increase in functions, values, and areal extent of aquatic systems resulting from the re-establishment of estuarine habitat, palustrine forested habitat, and enhancement of associated uplands on the on the Lower Wapato Creek AMS. Two types of wetland credits were generated: estuarine emergent (EEM) wetland credits and palustrine forested (PFO) wetland credits. Because of numerous and variable environmental factors, the number of each type of credits will be determined during the monitoring period based on actual on-site conditions. The Advance Mitigation Plan estimates the site will generate approximately 6.27 EEM acre-credits and 3.08 to 3.75 PFO acre-credits for a total of 9.35 to 10.02 acre-credits.

Tables 3 and 4 have been reproduced from the Advance Mitigation Plan (Port of Tacoma, March 2021). Table 3 specifies credit use ratios for estuarine and palustrine wetland impacts. Table 4 specifies credit use ratios for palustrine wetland impacts only.

Table 3: Credit Use Ratios for EEM Wetland Credits from Advance Mitigation Plan

Age of the Site (Years)	Category I Estuarine and Palustrine[1]	Category II Estuarine and Palustrine	Category III	Category IV	Stormwater Ditches
0 & 1	Case-by-case	3:1	2:1	1.5:1	1:1
2	Case-by-case	2.5:1	1.8:1	1.4:1	0.9:1
3	Case-by-case	1.8:1	1.6:1	1.3:1	0.8:1
4 & 5	Case-by-case	1.6:1	1.3:1	1.2:1	0.6:1
6 & 7	Case-by-case	1.4:1	1.2:1	1:1	0.6:1
8 & 9	Case-by-case	1.25:1	1:1	0.85:1	0.5:1
10 & Beyond	Case-by-case	1:1	0.9:1	0.75:1	0.5:1

[1] Ratios for Category I wetland impacts will be higher than the ratios listed for Category II.

Table 4: Credit Use Ratios for PFO Wetland Credits from Advance Mitigation Plan

Age of the Site (Years)	Category I Palustrine[1,2]	Category II Palustrine[2]	Category III	Category IV	Stormwater Ditches
0 & 1	Case-by-case	3:1	2:1	1.5:1	1:1
2	Case-by-case	2.75:1	1.85:1	1.4:1	0.9:1
3	Case-by-case	2.5:1	1.7:1	1.3:1	0.8:1
4 & 5	Case-by-case	2.1:1	1.5:1	1.2:1	0.7:1
6 & 7	Case-by-case	1.6:1	1.2:1	1:1	0.6:1
8 & 9	Case-by-case	1.5:1	1.1:1	0.9:1	0.5:1
10 & Beyond	Case-by-case	1.2:1	1:1	0.85:1	0.5:1

[1] Ratios for Category I wetland impacts will be higher than the ratios listed for Category II.

[2] Ratios may not apply to Category I and Category II wetlands based on Special Characteristics.

At Ecology's suggestion, this advance mitigation site Use Plan was drafted based on the Mitigation Bank Interagency Review Team's guidance/template for a Bank Use Plan (August 2021 version). That guidance states to provide rationale if proposed ratios for determining the credits needed differ from those suggested in the MBI (or, in this case, the advance mitigation plan). The guidance states: factors that may affect the actual number of bank (advance mitigation) credits needed to compensate for an adverse impact to wetlands and other aquatic resources include:

- whether the impact is permanent or temporary,
- the extent to which the functions are affected due to indirect impacts,
- whether some of the functions affected by a project are compensated elsewhere,
- the extent to which the functions provided at the bank (advance mitigation site) differ from the impacted functions,
- out-of-service area requests based on the distance from the impact location and type of impact,
- and other factors.

The Port is proposing slightly different credit use ratios because the functions provided at the Lower Wapato Creek AMS are significantly higher than the limited functions of the impacted wetlands being compensated and for the other factors as described below.

- The construction timing of the advance mitigation site is not traditional, in that the creek is reconnected, and the site is graded and seeded, to allow the site to begin to improve water quality, hydrology, and habitat functions prior to planting shrubs and trees. This alters the official "Age of the Site (Years)" in Table 3 and 4 above. The Lower Wapato Creek AMS construction started in July 2021. All wetland/habitat area construction, habitat features, emergent and grass seeding, and mature tree preservation will be completed by December 2021. The plant installation will occur in the Fall 2022/Spring 2023 planting season after the site has had a year to establish hydrologic connectivity and to help determine the extent of the saltwater wedge. With this construction schedule, "Year 0" doesn't occur until 2023 with the As-Built report. However, most water quality and hydrology functions and some habitat functions will be present and will begin to establish/function immediately upon reconnection of the creek channel and earthwork completion in 2021. Hydrologic monitoring will begin in 2021 and all construction activities except the installation of plants will be documented in an As-Built Report in early 2022. An additional As-built Report or addendum will be prepared after the installation of all plants in fall 2022/spring 2023.
- Construction of the Lower Wapato Creek AMS is underway and at least two years in advance of the impact Project (Project construction is currently anticipated to start in 2nd or 3rd Quarter of 2023). Wetland, estuary, and stream water quality and hydrology functions at Lower Wapato Creek AMS will begin upon completion of construction as discussed herein. With the retention of mature trees, creek channel reconnection, grading, and seeding with native species, the Lower Wapato Creek AMS will function ecologically at the same level or higher than the Project-impacted wetlands upon the completion of 2021 construction.
- The Project-impacted wetlands will be mitigated with a higher value (higher category) wetland. The Project-impacted wetlands are degraded, depressional and isolated, Category III PFO wetlands. In comparison, the Lower Wapato Creek AMS has been designed and constructed as a Category I estuarine and freshwater wetland complex consisting of intertidal mudflat, estuarine, freshwater emergent and palustrine forested wetlands surrounded by a forested upland buffer.
- The Project-impacted wetlands do not have any fish habitat and are not a riparian area. The Lower Wapato Creek AMS provides fish habitat for non-Endangered Species Act (ESA) listed species and riparian areas as complementary and additional ecological benefits that will function above and beyond wetland functions alone.
- Water quality functions of the Project-impacted wetlands are limited to infiltrating precipitation and some stormwater runoff. The development Project will incorporate stormwater flow control and biofiltration treatment. As described in Section 7, the Lower Wapato Creek AMS will greatly improve water quality functions over that of the wetlands to be impacted by re-establishing approximately 10 ac of wetland mosaic and 8.5 ac of upland riparian buffer which will remove sediments, nutrients, and toxins. These functions will begin immediately upon construction as the seeding and wetland hydrology are established, allowing water to filter through the soils and as the existing trees and planted emergent vegetation and native grasses grow and mature.
- Hydrology functions of the Project-impacted wetlands are limited to high groundwater, precipitation, and some stormwater flow. The Project-impacted wetlands are not connected to a floodplain or estuary. The Lower Wapato Creek AMS greatly improves hydrologic function through influences by groundwater,

precipitation, stream flow, and tidal interactions. It reconnects approximately 10 ac of the Wapato Creek floodplain and provides a substantial increase in flood storage capacity as described in Section 7.

- Habitat functions of the Project-impacted wetlands are limited to an island of a near monoculture of black cottonwood trees with some native shrubs and non-native, invasive, and noxious weeds surrounded by impervious surfaces and industrial development. The Project-impacted wetlands have limited biodiversity and are not connected to a wildlife corridor. Conversely, the Lower Wapato Creek AMS provides a diverse assemblage of native emergent vegetation, grasses, shrubs, and trees to complement the existing stand of large mature trees. The Lower Wapato Creek AMS increases the overall biodiversity of the area and adds significant habitat availability to aquatic, amphibian, terrestrial, and avian wildlife by providing over 18.5 ac of high-quality habitat within the Wapato Creek wildlife corridor.
- The buffer of the wetlands to be impacted have already been significantly impacted and interrupted by development with only 37 percent of the 75-foot buffer surrounding the wetlands remaining intact, albeit, with degraded habitat consisting of near monoculture of black cottonwoods and invasive and noxious weeds in the understory. As shown in Table 1, only ~2.21 ac of the total regulated 75-foot buffer area (5.88 ac) remains uninterrupted.

10. Proposed Mitigation Credits

Based on the above factors and an anticipated earliest start of the impact Project construction of 2nd or 3rd Quarter of 2023, for the Category III wetland impact, the Port proposes the credit use ratio in Table 3 (use ratios for EEM credits) corresponding to "Age of the Site (Years)" 2 and 0 & 1 for Table 4 (use ratios for PFO credits). Therefore, the EEM wetland credit use ratio (credit:impact acre) will be 1.8:1 (Table 3, Year 2) and the PFO wetland credit use ratio will be 2:1 (Table 4, Year 0 & 1).

As the final number of EEM and PFO wetland acre-credits generated by the Lower Wapato Creek AMS are not known at this time, the Port proposes to use all generated PFO wetland credits to mitigate this Project first, and use the EEM wetland credits to fulfill any remaining credit need. The Lower Wapato Creek AMS is anticipated to generate approximately 6.27 EEM acre-credits and 3.08 to 3.75 PFO acre-credits for a total of 9.35 to 10.02 acre-credits. The below table provides an example of potential types of mitigation credits and the associated credit use ratios that are needed to compensate for the Project impacts.

Table 5: Lower Wapato Creek AMS Credits Proposed for Use by Impact Project

Wetland	Total Wetland Area (acres)	Permanently Filled/Mitigated Wetland Area (acres)	Ecology Rating	PFO Credit Needed per Impact Acre[1]	PFO Credit Proposed for Use	EEM Credit Needed per Impact Acre[2]	EEM Credit Proposed for Use
A	1.681	1.681	III	2	3.36		
B	2.738	2.738	III	2	0.39	1.8	4.58
TOTAL	**4.419**	**4.419**			**3.75**		**4.58**

11. Credit/Debit Accounting

Upon issuance of the City of Tacoma, Ecology, and U.S. Army Corps of Engineers Project permits the Port will debit the necessary credits from the Lower Wapato Creek AMS and submit an updated ledger to the regulatory agencies documenting the credit use as described in Section 11.3 (Credit/Debit Accounting) of the Lower Wapato Creek Habitat Project Advance Mitigation Plan. The impact Project permits are anticipated to be issued in early 2023. If the final number and type of wetland credits generated at the Lower Wapato Creek AMS is not known by the date the credits will be used the credit use letter and ledger will include notes that the distribution of types of credits used may need to be adjusted in the future pending the final number and type of wetland acre-credits generated. Note, the total wetland acre-credits needed to mitigate for this impact Project are less than the low end of the range of wetland acre-credits anticipated to be generated at the Lower Wapato Creek AMS; therefore, some wetland acre-credits are anticipated to still be available for future Port development projects that may impact aquatic resources.

12. References

GeoEngineers. 2020. Lower Wapato Creek Habitat Project Floodplain Memo. Memorandum to Port of Tacoma. May 1, 2020.

Grette & Associates. 2021. Port of Tacoma Off-Dock Container Yard and Stormwater Project Wetland Analysis Report. September 2021.

Mitigation Bank Interagency Review Team (IRT) for Washington State. 2021. Bank Use Plan Template Version: [August 2021]. Retrieved from: https://ecology.wa.gov/Water-Shorelines/Wetlands/Mitigation/Wetland-mitigation-banking/Templates-guidance-documents.

Port of Tacoma. 2021. Lower Wapato Creek Habitat Project, Advance Mitigation Plan. March 2021.

Washington State Department of Ecology and U.S. Army Corps of Engineers. 2013. Credit Guide for Wetland Mitigation Banks. Published by Washington State Department of Ecology Shorelands and Environmental Assistance Program and U.S. Army Corps of Engineers, Seattle District, Regulatory Branch. Ecology Publication No. 12-06-014. February 2013. Retrieved from: https://apps.ecology.wa.gov/publications/documents/1206014.pdf

Attachments:

Figure 1. Permit Application Drawings
Figure 2. Wetland Delineation Map
Figure 3. Geographic Service Area

[1] From PFO credit use ratio table of the Lower Wapato Creek Habitat Site Advance Mitigation Plan (Table 17).

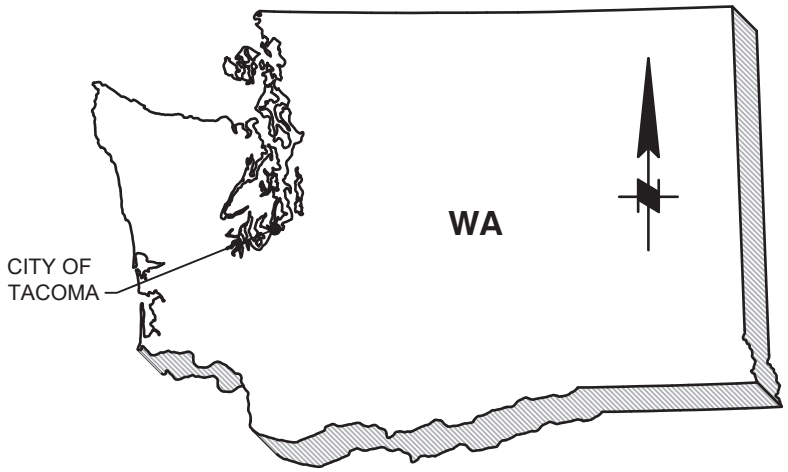
[2] From EEM credit use ratio table of the Lower Wapato Creek Habitat Site Advance Mitigation Plan (Table 16).

HORIZONTAL DATUM:
WASHINGTON STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 83/2011 (PER PORT OF TACOMA SURVEY CONTROL MAP - 2016)

VERTICAL DATUM:
MLLW (PER PORT OF TACOMA 2016 SURVEY CONTROL MAP)
TIDE 22 1935 BENCHMARK: LOCATED AT NE CORNER OF 11TH STREET BRIDGE AT THE INTERSECTION OF 11TH STREET AND MILWAUKEE WAY
ELEVATION = +19.18
(BASED ON 1983-2001 TIDAL EPOCH)

SITE TEMPORARY BENCHMARK:
PORT OF TACOMA MONUMENT #104 AT INTERSECTION OF PORT OF TACOMA ROAD AND MAXWELL WAY
ELEVATION = +17.59

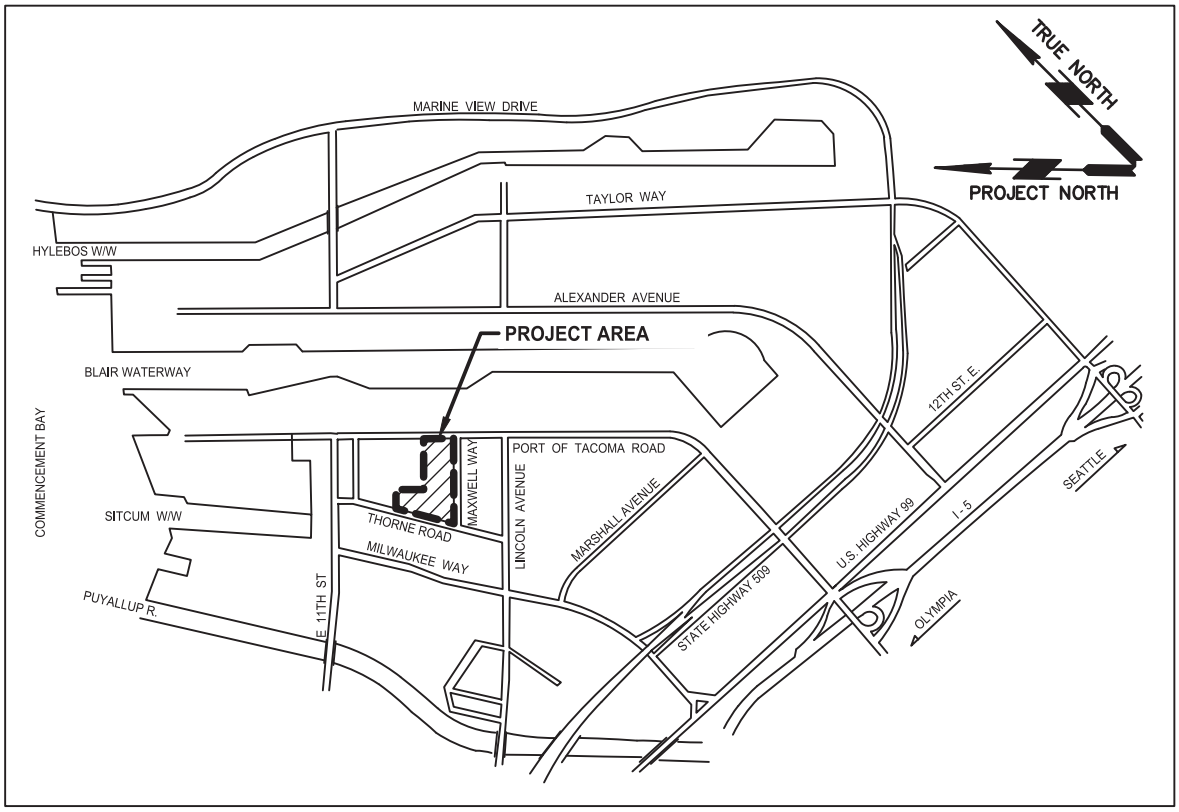
0.00 FT MLLW + 2.67 FT = 0.00 NAVD88



VICINITY MAP
SCALE: NTS

DIRECTIONS TO SITE FROM SEATTLE:

		MILES
1.	I-5 S TO EXIT #136	~30
2.	TURN RIGHT ON PORT OF TACOMA RD	~0.5
3.	ARRIVE AT PROJECT SITE	~1.8



LOCATION MAP
SCALE: NTS

Figure 1. Permit Application Drawings

USACE REFERENCE: NWS-2020-557-WRD	LOCATION: 1451 & 1721 THORNE ROAD AND 1702 PORT OF TACOMA ROAD TACOMA, WA	PROPOSED PROJECT: OFF-DOCK CONTAINER SUPPORT FACILITY
APPLICANT: PORT OF TACOMA	LAT/LONG: 47.264 N -122.401 W	IN: NOT LOCATED IN A WATERBODY
ADJACENT PROPERTY OWNERS: SEE THE JOINT AQUATIC RESOURCES PERMIT APPLICATION (JARPA)	DATUM: MLLW=19.39' TIDE 22 1935 BENCHMARK	NEAR/AT: CITY OF TACOMA
	SHEET: 1 OF 7 DATE: OCTOBER 22, 2021	COUNTY: PIERCE STATE: WA
		SEC: 34 T: 21 N R: 3 E

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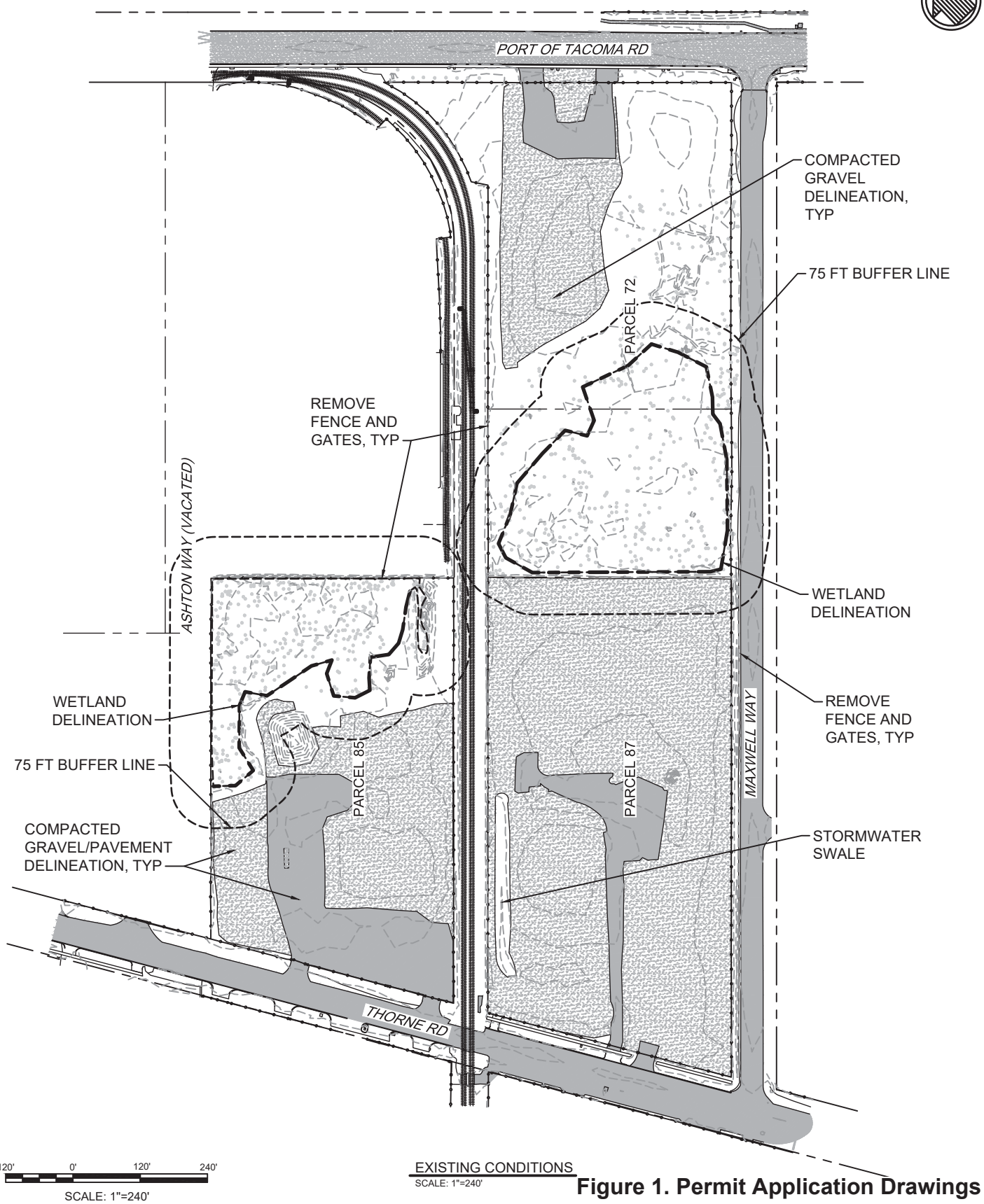

EXISTING CONDITIONS
SCALE: 1"=240'

Figure 1. Permit Application Drawings

USACE REFERENCE: NWS-2020-557-WRD	LOCATION: 1451 & 1721 THORNE ROAD AND 1702 PORT OF TACOMA ROAD TACOMA, WA	PROPOSED PROJECT: OFF-DOCK CONTAINER SUPPORT FACILITY
APPLICANT: PORT OF TACOMA	LAT/LONG: 47.264 N -122.401 W	IN: NOT LOCATED IN A WATERBODY
ADJACENT PROPERTY OWNERS: SEE THE JOINT AQUATIC RESOURCES PERMIT APPLICATION (JARPA)	DATUM: MLLW=19.39' TIDE 22 1935 BENCHMARK	NEAR/AT: CITY OF TACOMA
	SHEET: 2 OF 7 DATE: OCTOBER 22, 2021	COUNTY: PIERCE STATE: WA
		SEC: 34 T: 21 N R: 3 E

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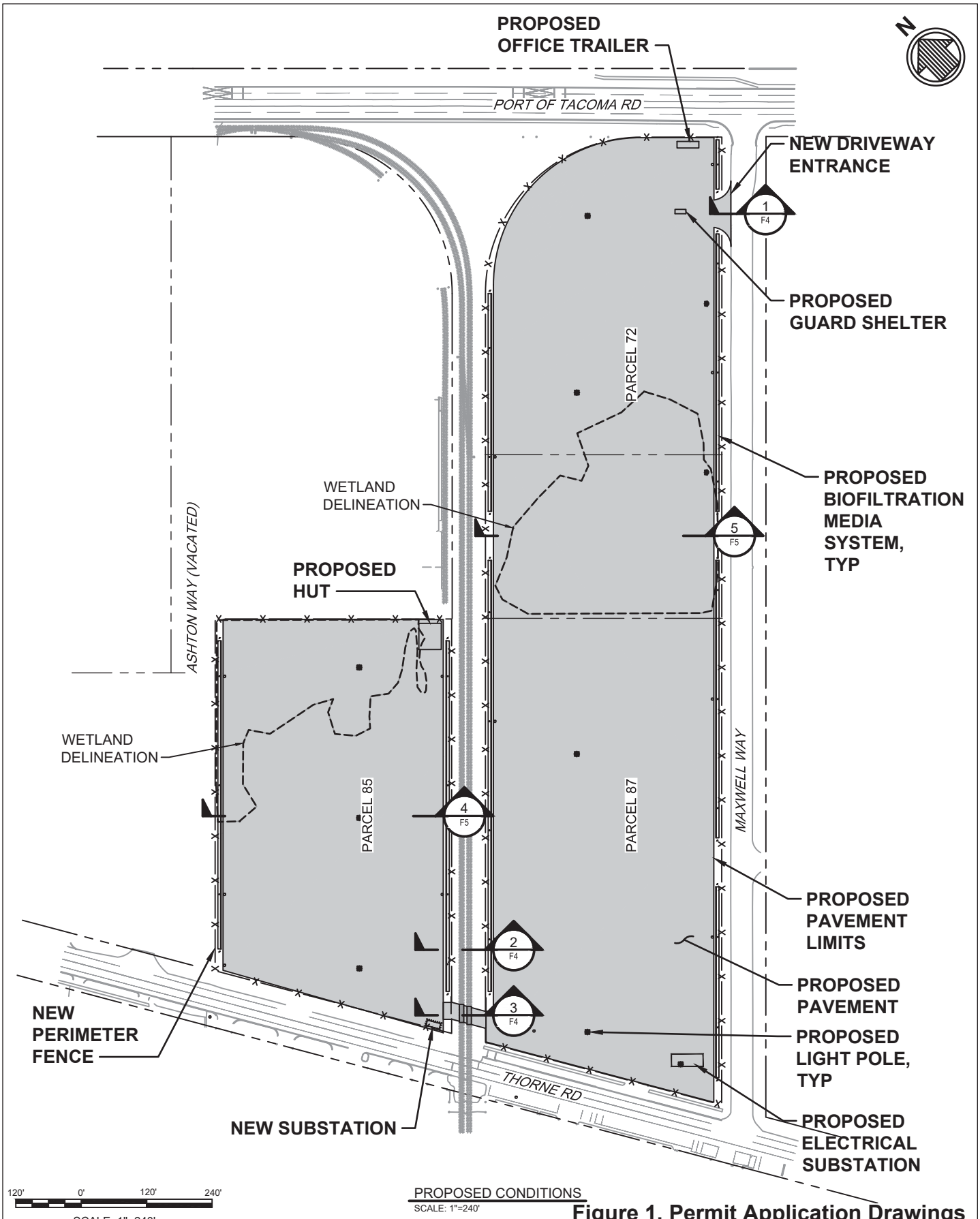

Figure 1. Permit Application Drawings

USACE REFERENCE: NWS-2020-557-WRD	LOCATION: 1451 & 1721 THORNE ROAD AND 1702 PORT OF TACOMA ROAD TACOMA, WA	PROPOSED PROJECT: OFF-DOCK CONTAINER SUPPORT FACILITY
APPLICANT: PORT OF TACOMA	LAT/LONG: 47.264 N -122.401 W	IN: NOT LOCATED IN A WATERBODY
ADJACENT PROPERTY OWNERS: SEE THE JOINT AQUATIC RESOURCES PERMIT APPLICATION (JARPA)	DATUM: MLLW=19.39' TIDE 22 1935 BENCHMARK	NEAR/AT: CITY OF TACOMA
	SHEET: 3 OF 7 DATE: OCTOBER 22, 2021	COUNTY: PIERCE STATE: WA
		SEC: 34 T: 21 N R: 3 E

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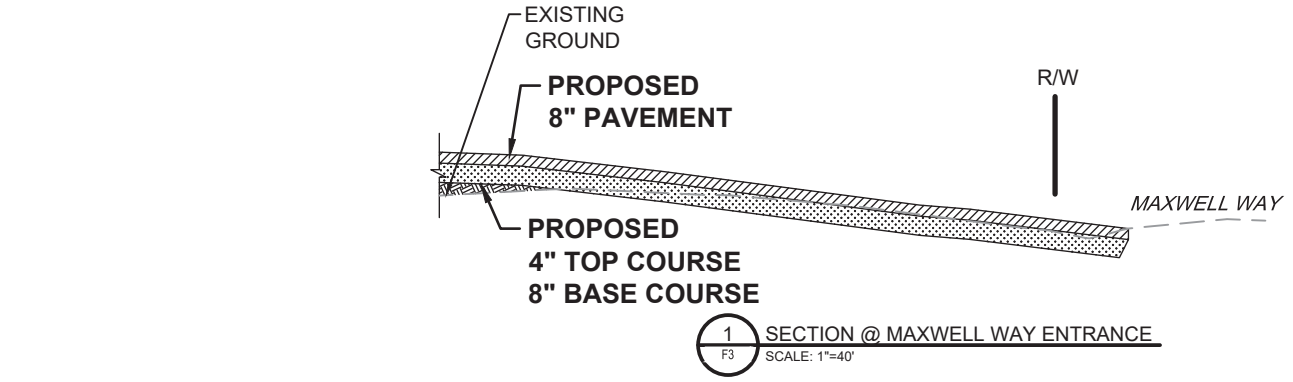

1 F3 SECTION @ MAXWELL WAY ENTRANCE
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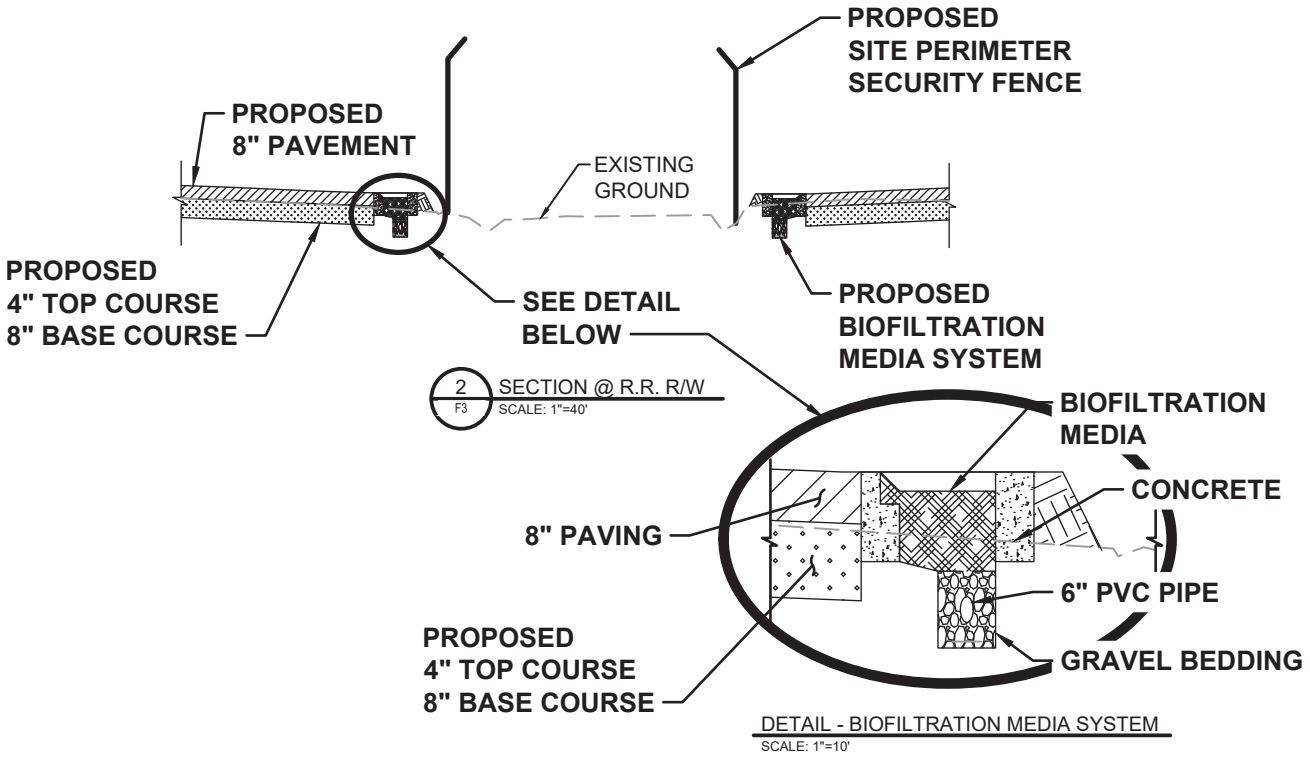
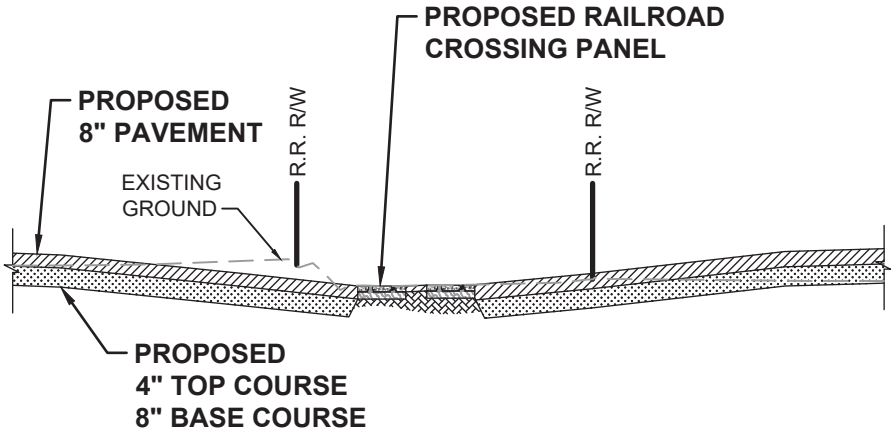


2 F3 SECTION @ R.R. R/W
SCALE: 1"=40'

DETAIL - BIOFILTRATION MEDIA SYSTEM
SCALE: 1"=10'



3 F3 SECTION @ R.R. CROSSING PANELS
SCALE: 1"=40'

40' 0' 40' 80'
SCALE: 1"=40'

Figure 1. Permit Application Drawings

USACE REFERENCE: NWS-2020-557-WRD	LOCATION: 1451 & 1721 THORNE ROAD AND 1702 PORT OF TACOMA ROAD TACOMA, WA	PROPOSED PROJECT: OFF-DOCK CONTAINER SUPPORT FACILITY
APPLICANT: PORT OF TACOMA	LAT/LONG: 47.264 N -122.401 W	IN: NOT LOCATED IN A WATERBODY
ADJACENT PROPERTY OWNERS: SEE THE JOINT AQUATIC RESOURCES PERMIT APPLICATION (JARPA)	DATUM: MLLW=19.39' TIDE 22 1935 BENCHMARK	NEAR/AT: CITY OF TACOMA
	SHEET: 4 OF 7 DATE: OCTOBER 22, 2021	COUNTY: PIERCE STATE: WA
		SEC: 34 T: 21 N R: 3 E

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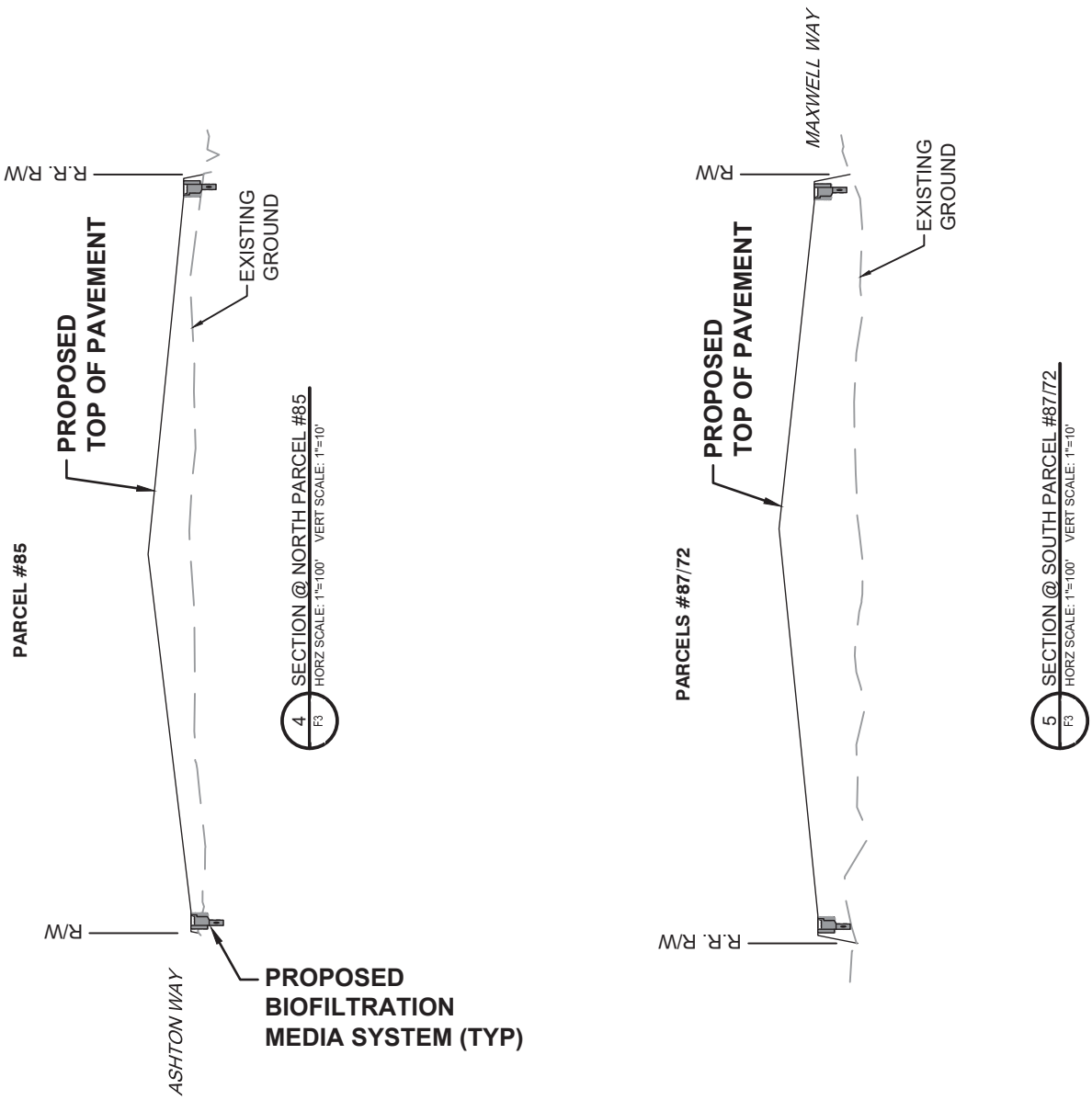

10' 0' 10' 20'

VERT SCALE: 1"=00'

100' 0' 100' 200'

HORZ SCALE: 1"=100'

Figure 1. Permit Application Drawings

USACE REFERENCE: NWS-2020-557-WRD	LOCATION: 1451 & 1721 THORNE ROAD AND 1702 PORT OF TACOMA ROAD TACOMA, WA	PROPOSED PROJECT: OFF-DOCK CONTAINER SUPPORT FACILITY
APPLICANT: PORT OF TACOMA	LAT/LONG: 47.264 N -122.401 W	IN: NOT LOCATED IN A WATERBODY
ADJACENT PROPERTY OWNERS: SEE THE JOINT AQUATIC RESOURCES PERMIT APPLICATION (JARPA)	DATUM: MLLW=19.39' TIDE 22 1935 BENCHMARK	NEAR/AT: CITY OF TACOMA
	SHEET: 5 OF 7 DATE: OCTOBER 22, 2021	COUNTY: PIERCE STATE: WA
		SEC: 34 T: 21 N R: 3 E

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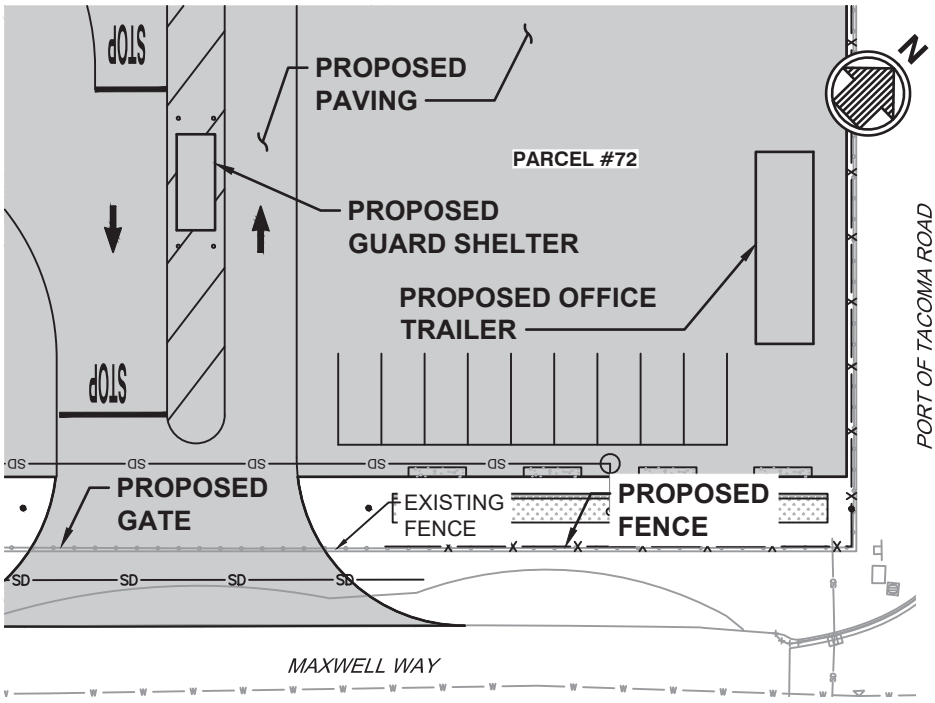
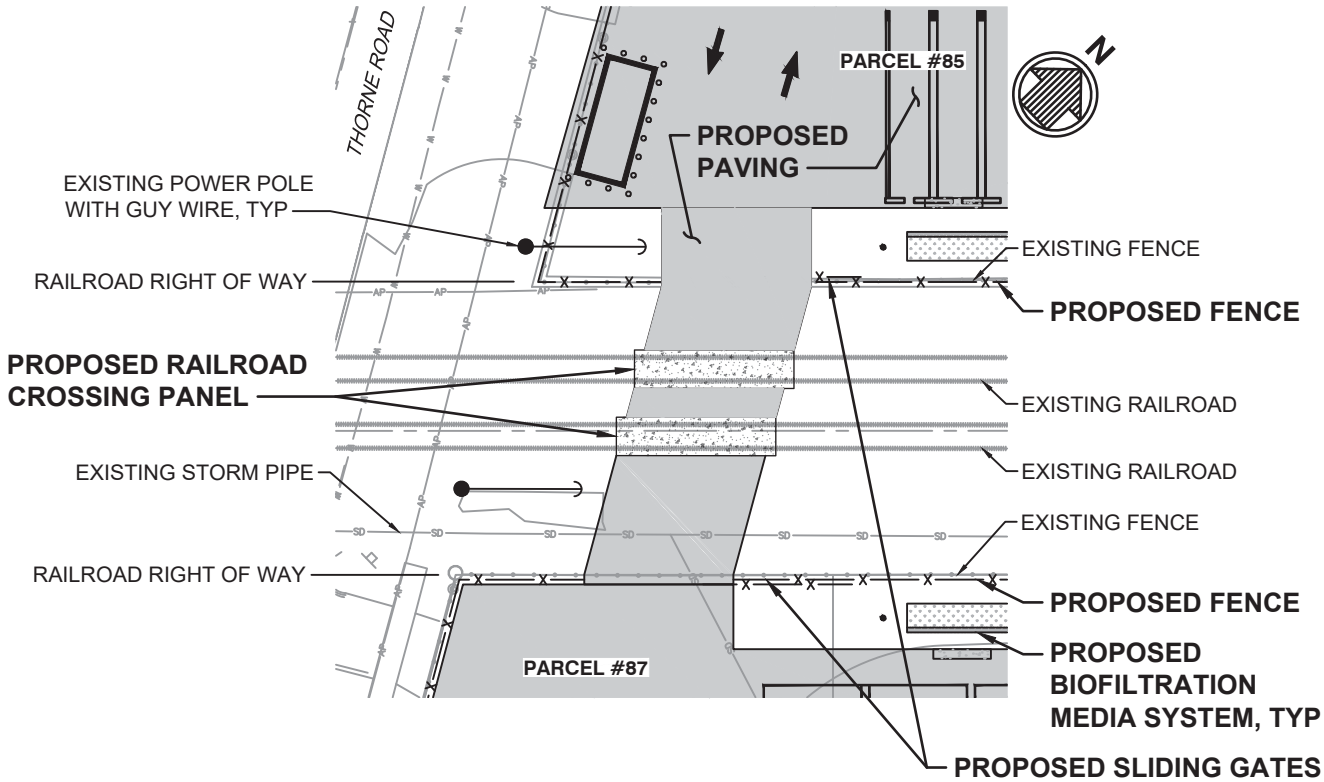


1 F3 PLAN @ MAXWELL WAY ENTRANCE
SCALE: 1" = 40'-0"



2 F3 PLAN @ RAILROAD CROSSING
SCALE: 1" = 40'-0"

40' 0' 40' 80'
SCALE: 1"=40'

Figure 1. Permit Application Drawings

USACE REFERENCE: NWS-2020-557-WRD	LOCATION: 1451 & 1721 THORNE ROAD AND 1702 PORT OF TACOMA ROAD TACOMA, WA	PROPOSED PROJECT: OFF-DOCK CONTAINER SUPPORT FACILITY
APPLICANT: PORT OF TACOMA	LAT/LONG: 47.264 N -122.401 W	IN: NOT LOCATED IN A WATERBODY
ADJACENT PROPERTY OWNERS: SEE THE JOINT AQUATIC RESOURCES PERMIT APPLICATION (JARPA)	DATUM: MLLW=19.39' TIDE 22 1935 BENCHMARK	NEAR/AT: CITY OF TACOMA
	SHEET: 6 OF 7 DATE: OCTOBER 22, 2021	COUNTY: PIERCE STATE: WA
		SEC: 34 T: 21 N R: 3 E

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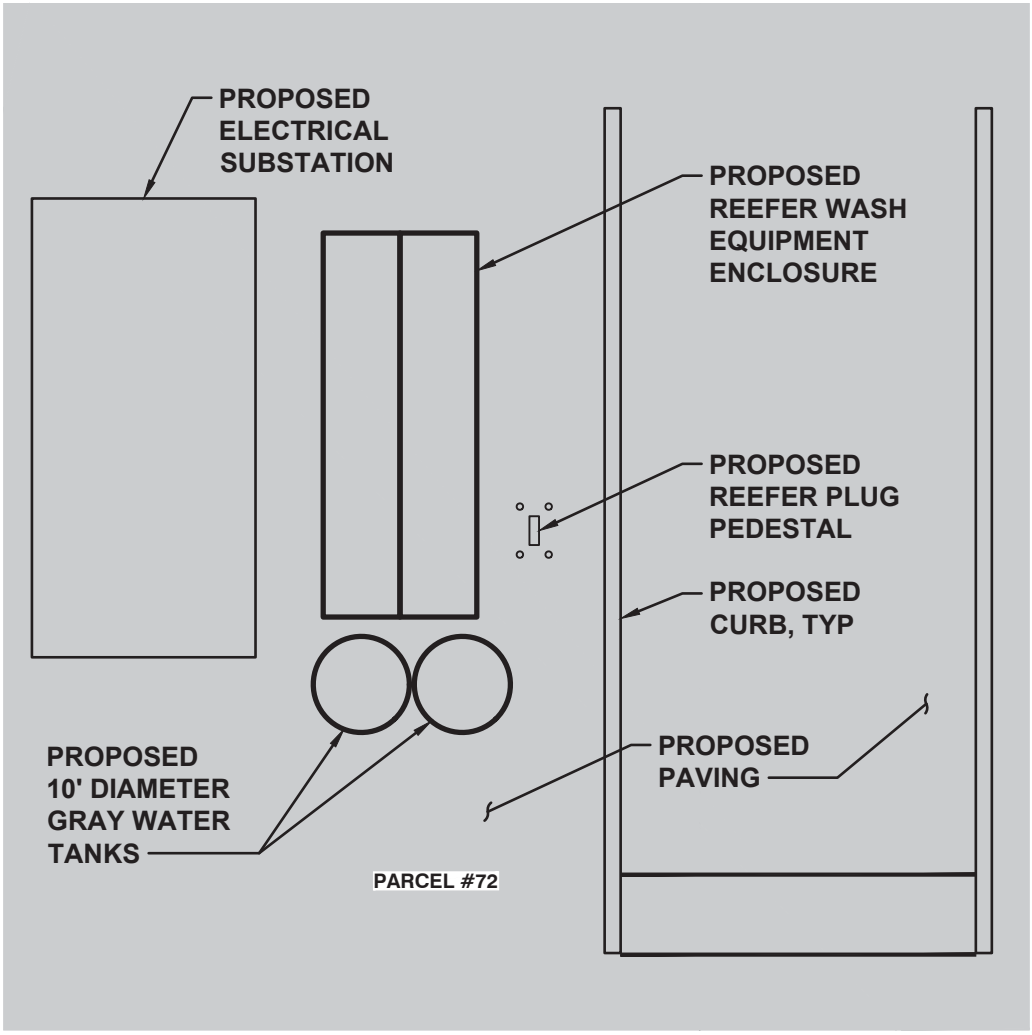

1 / F3 PLAN AT ELECTRICAL SUBSTATION AREA
SCALE: 1"=20'

20' 0' 20' 40'
SCALE: 1"=20'

Figure 1. Permit Application Drawings

USACE REFERENCE: NWS-2020-557-WRD	LOCATION: 1451 & 1721 THORNE ROAD AND 1702 PORT OF TACOMA ROAD TACOMA, WA	PROPOSED PROJECT: OFF-DOCK CONTAINER SUPPORT FACILITY
APPLICANT: PORT OF TACOMA	LAT/LONG: 47.264 N -122.401 W	IN: NOT LOCATED IN A WATERBODY
ADJACENT PROPERTY OWNERS: SEE THE JOINT AQUATIC RESOURCES PERMIT APPLICATION (JARPA)	DATUM: MLLW=19.39' TIDE 22 1935 BENCHMARK	NEAR/AT: CITY OF TACOMA
	SHEET: 7 OF 7 DATE: OCTOBER 22, 2021	COUNTY: PIERCE STATE: WA
		SEC: 34 T: 21 N R: 3 E

File: Q:\SEA\10284-02\CADD_Active_JARPA\1028402_F6-F7

Grette Associates LLC
ENVIRONMENTAL CONSULTANTS
2102 North 30th Street, Suite A
TACOMA, WA 98403
(253) 573-9300
gretteassociates.com

PROJECT #:	323.005
DESIGNED BY:	CW
CHECKED BY:	SM
DATE:	02/12/2020
DATE:	02/12/2020

CLIENT: PORT OF TACOMA

PORT OF TACOMA

DRAWING SCALE: SEE SCALE BAR

SITE ADDRESS: PIERCE COUNTY, WA

FIGURE 2
WETLAND DELINEATION MAP

SHEET 1 OF 1

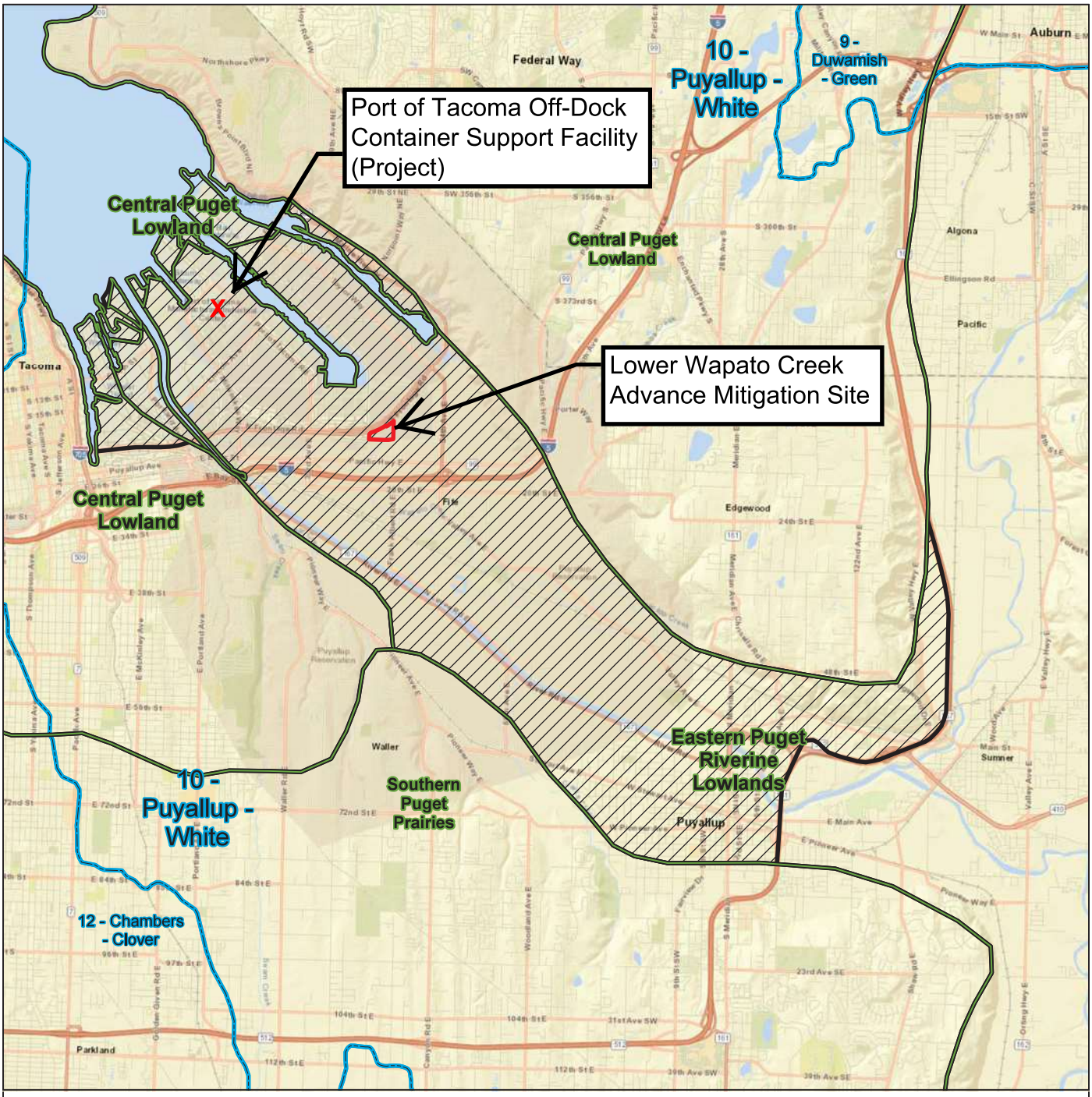

Figure 3. Geographic Service Area

Lower Wapato Creek Habitat Project

Port of Tacoma

DATE: 1/25/2021

Legend

- Project Site
- Geographic Service Area
- Ecoregions
- Water Resource Inventory Areas

N W E S

8,000 0 8,000

Feet

Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source: ESRI, DeLorme, USGS, Intermap

Projection: NAD 1983 StatePlane Washington South FIPS 4602 Feet

Port of Tacoma

Document Name: Fig2_SA_revised 11/6/2020 9:56:37 AM smm