

**THE NORTHWEST SEAPORT ALLIANCE**  
**MEMORANDUM**

**MANAGING MEMBERS**  
**ACTION ITEM**

Item No.: 9C  
Meeting Date: May 5, 2026

**DATE:** April 27, 2026

**TO:** Managing Members

**FROM:** John Wolfe, CEO

Sponsor: Jason Jordan, Sr. Director, Environmental & Planning Services  
Project Manager: Graham VanderSchelden, Environmental Project  
Manager II

**SUBJECT:** ZE Terminal Master Planning at EB1 and WUT Project Authorizations

**A. ACTIONS REQUESTED**

Request the Managing Members project authorization in the amount of \$405,000, for a total authorized amount of \$455,000, for Washington United Terminal (WUT) Zero Emission (ZE) Terminal Master Planning, Project Identification No. 202062.

Request the Managing Members project authorization in the amount of \$225,000, for a total authorized amount of \$275,000, for East Blair One terminal (EB-1) ZE Terminal Master Planning, Project Identification No. 202063.

**B. SYNOPSIS**

In 2025, the NWSA accepted a \$3 million planning grant from the EPA Clean Ports program to support design of shore power at WUT, ZE Terminal Master Planning at WUT and EB-1, and design of cargo handling equipment (CHE) charging infrastructure at EB-1 to support near term ZE CHE deployments (funded by another grant). ***The two project authorizations requested are to implement the ZE Terminal Master Planning efforts and are fully grant funded through this EPA Clean Ports Planning grant.***

ZE Terminal Master Planning work at EB-1 and WUT are key elements of our 2026-2030 Clean Air Implementation Plan, which includes an action to complete ZE Terminal Master Planning at all of our terminals by 2030.

## C. BACKGROUND

The 2020 Northwest Ports Clean Air Strategy (NWPCAS) established the vision of phasing out emissions from seaport related activities by 2050. Of the emissions that the NWSA is seeking to phase out through implementation of the NWPCAS, CHE is the largest source of diesel particulate matter (DPM) and second largest source of greenhouse gas (GHG) emissions that occur on port facilities where we have the greatest degree of influence (3<sup>rd</sup> highest source of DPM and GHG emissions when the entire airshed is considered).

The NWSA's 2026-2030 NWPCAS Clean Air Implementation Plan (CAIP) includes a number of actions to support implementation of ZE CHE and otherwise reduce CHE emissions. Those actions are as follows. This authorization supports the action to develop ZE terminal master plans.

### Actions:

- Encourage/support tenant use of renewable diesel.
- Continue including Tier 4 minimum requirements in new/amended leases.
- ***Develop ZE terminal master plans.***
- Develop and implement a technology demonstration program.
- Install key enabling infrastructure to support ZE fleet transitions.
- Support purchases of ZE CHE.
- Explore non-traditional funding models for ZE CHE and infrastructure.

### ***EPA Clean Ports Grant***

In 2025, the NWSA accepted a \$3 million planning grant from the EPA Clean Ports program to support design of shore power at Washington United Terminal, ZE Terminal Master Planning at WUT and EB-1, and design of cargo handling equipment charging infrastructure at EB-1 to support near term deployments (funded by another grant). This grant does not require any matching funds, meaning that consultant work conducted for planning and design will be fully reimbursed by the grant, up to \$2.74 million. Staff costs for eligible salary and fringe benefit costs will be covered up to \$257,000. Any additional staffing and overhead costs will be provided in-kind.

Estimated distribution of spending under the EPA Clean Ports Grant is as follows.

<b>EPA Clean Ports Funding</b>	
Personnel (salary + benefits)	\$257,000
Contractual	\$2,743,000
<b>Total</b>	<b>\$3,000,000</b>
<b><i>Projected Breakdown of Contractual Costs</i></b>	
<i>WUT Shore Power Design*</i>	<i>\$2,045,000</i>
<i>WUT ZE Terminal Planning</i>	<i>\$380,000</i>
<i>EB-1 ZE Terminal Planning</i>	<i>\$225,000</i>
<i>EB-1 Infrastructure Design*</i>	<i>\$93,000</i>

\*Separate authorization requests will be made, as needed, for the WUT Shore Power Design and EB-1 Infrastructure Design projects.

#### **D. PROJECT DESCRIPTION AND DETAILS**

The ZE Terminal Master Planning projects follow similar scopes, culminating in a detailed analysis of the electrical system upgrades on the terminal needed to transition all CHE and fleet vehicles to ZE technologies. Shore power will also be considered in the planning analysis for EB-1. The ZE Terminal Master Planning projects will be completed before the end of 2027, conforming to the grant period of performance.

##### ***Scope of Work***

The ZE Terminal Master Planning Projects will include the following.

- Detailed inventory of vessel activity, cargo-handling equipment fleet, vehicle fleets, and electrical infrastructure.
- Develop a facility specific baseline emissions inventory (requirement of the grant) and forecasting tool.
- Assessment of cost and feasibility of potential ZE technology implementation strategies.
- Engineering analysis to identify infrastructure upgrades needed to support deployment of ZE CHE, fleet charging, and shore power (for EB-1) including an electrical system layout for the terminal.
- Develop roadmap for ZE infrastructure and fleet deployments, including identification of highest priority near-term infrastructure projects.

**E. FINANCIAL IMPLICATIONS**

***Project Cost Details***

Consulting costs and eligible staff costs (salary and fringe benefits) will be reimbursed by the grant.

<b>WUT ZE Terminal Master Planning</b>	
Staff Time	\$75,000
Consultant	\$380,000
<b>Total</b>	<b>\$455,000</b>
<b>EB1 ZE Terminal Master Planning</b>	
Staff Time	\$50,000
Consultant	\$225,000
<b>Total</b>	<b>\$275,000</b>

***Source of Funds***

The 2026–2030 Capital Investment Plan (CIP) Budget includes allocations of \$372,000 for Project ID 202062 and \$40,000 for Project 202063, with total estimated project costs of \$386,000 and \$53,000, respectively. The project budgets will be updated to reflect the latest authorized amounts upon approval by the Managing Members.

***Financial Impact***


Grant income and the offsetting project consultant costs will be expensed as incurred. Staff time will be recognized through the normal payroll processes.

**F. PREVIOUS ACTIONS OR BRIEFINGS**

<b><u>Date</u></b>	<b><u>Action</u></b>	<b><u>Amount</u></b>
January 21, 2026	MID 202062 Executive Authorization	\$50,000
January 21, 2026	MID 202063 Executive Authorization	\$50,000
January 7, 2025	EPA Clean Ports Grant Acceptance	-
<b>TOTAL 202062 (WUT)</b>		<b>\$50,000</b>
<b>TOTAL 202063 (EB1)</b>		<b>\$50,000</b>

Item No.: 9C  
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# Zero Emission Master Planning at EB-1 and WUT Project Authorization



**THE NORTHWEST  
SEAPORT ALLIANCE**  
SEATTLE + TACOMA


Graham VanderSchelden  
Environmental Project Manager II

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## ACTION REQUESTED

Request the Managing Members grant project authorization in the amount of \$405,000 , for a total authorized amount of \$455,000, for work associated with WUT ZE Terminal Master Planning, Project Identification No. 202062.

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## Background

- **NWPCAS:** Phase out emissions by 2050
- **2026-2030 CAIP:** Deploy 30 pieces of ZE CHE
- **2026 – 2030 CHE Action Plan**
  - Encourage/support tenant use of renewable diesel.
  - Tier 4 lease requirements.
  - **Develop ZE terminal master plans.**
  - Develop and implement a technology demonstration program.
  - Install key enabling infrastructure.
  - Support purchases of ZE CHE.
  - Explore non-traditional funding models.



## Background – EPA CPP Grant

- Grant: \$3M, no match requirements.
  - Means all costs are fully grant reimbursed.

<b>Personnel (salary + benefits)</b>	<b>\$257,000</b>
<b>Contractual</b>	<b>\$2,743,000</b>
<i>WUT Shore Power Design</i>	<i>\$2,045,000</i>
<i>WUT ZE Terminal Planning</i>	<i>\$380,000</i>
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<i>EB-1 Infrastructure Design</i>	<i>\$93,000</i>



## Project Scope

- Terminal asset and activity inventory
  - Vessel, CHE, vehicle, and electrical infrastructure
- Emissions inventory [grant required] and forecasting tool
- ZE technology feasibility assessment
- Engineering analysis to identify necessary upgrades
- ZE infrastructure roadmap
- Complete by end of 2027



## Financial Summary

<b>WUT ZE Terminal Master Planning</b>	
Staff Time	\$75,000
Consultant	\$380,000
<b>Total</b>	<b>\$455,000</b>
<b>EB1 ZE Terminal Master Planning</b>	
Staff Time	\$50,000
Consultant	\$225,000
<b>Total</b>	<b>\$275,000</b>

Grant income and the offsetting project consultant costs will be expensed as incurred. Staff time will be recognized through the normal payroll processes.

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