

# Chapter 1

## Summary

## 1.0 SUMMARY

### 1.1 INTRODUCTION

The Port of Seattle (the Port), in coordination with the Northwest Seaport Alliance (NWSA), is proposing the Terminal 5 Cargo Wharf Rehabilitation, Berth Deepening, and Improvements project (the Project) on the West Waterway at Terminal 5. The proposed Project is required to be reviewed for **likely significant adverse environmental impacts** to the built and natural environment under the State Environmental Policy Act (SEPA) for Washington State. SEPA applies to decisions made by state and local agencies, including ports. The Port is lead agency for SEPA environmental review of the proposal and is responsible for conducting the environmental review. The environmental review process helps state and local agencies identify and consider **likely significant adverse** environmental impacts that could result from government actions, including permit actions. This chapter provides a **summary of the environmental** review, the proposed Project, and conclusions.

The FEIS has been written by using the DEIS as a base document and using the tracking changes feature of Microsoft Word to facilitate the recognition of revisions that have been made to the text in the document since the DEIS was issued. The tracking changes will show the text additions that have been made in red. Changes will be indicated with a line down the right-hand margin on each page for the original chapters of the DEIS (Chapters 1, 2, 3, 7, and 8).

Three new chapters are included in this FEIS and will not show tracking changes because all of the information provided in those chapters is new. The new chapters are Chapter 4: Updated Information and Analysis; Chapter 5: Errata; and Chapter 6: Comment Letters and Responses.

### 1.2 ENVIRONMENTAL IMPACT STATEMENT

SEPA requires an Environmental Impact Statement (EIS) for any proposal that is likely to have a significant adverse environmental impact and mitigation has not been able to reduce the impact to a nonsignificant level. The primary purpose of an EIS is to provide an impartial discussion of significant environmental impacts, and reasonable alternatives and mitigation measures that avoid or minimize adverse environmental impacts. The process includes the following activities:

- Gathering background information.
- Developing reasonable alternatives.
- Conducting analysis and review of the alternatives.
- Identifying potential environmental impacts from the alternatives.
- Identifying ways to avoid, reduce, or minimize the effects of significant adverse impacts.
- Conducting public involvement.

The Port of Seattle, as SEPA lead agency for the proposed Project, is responsible for conducting the environmental review. A detailed summary of the SEPA review steps taken for this proposal is found in Chapter 2.1.2. Project Scoping began October 22, 2015 and ended November 23, 2015. The Draft Environmental impact Statement was published May 23, 2016 with comment period closing July 8, 2016. Following review of comments, the Port selected a Preferred Alternative (see Chapter 1.2.6)

and the Final EIS was prepared. The FEIS is now issued with responses to comments and updated information and analysis.

### 1.2.1 HISTORY OF THE TERMINAL 5 SITE

The existing Terminal 5 marine cargo site includes approximately 197 acres committed to marine cargo uses and activities and has long been under Port ownership. It is one of four deep-draft container cargo facilities in Elliott Bay. Previous improvements to the existing Terminal 5 cargo terminal were completed in 1999. Cargo facility improvements completed in 1999 included the following: (1) adding approximately 90 acres of upland cargo marshalling area; (2) construction of intermodal cargo transfer rail lines; (3) construction of approximately 400 linear feet of cargo wharf; (4) construction of a grade-separated vehicle/rail overpass entrance; and (5) improvement of approximately 13 acres of public shoreline access, landscaped buffer areas, pedestrian/bicycle pathways, and approximately 1.6 acres of fish and wildlife habitat restoration.

### 1.2.2 PROJECT PROPONENT

The Port is the Project proponent in partnership with the NWSA. The NWSA is a management authority governed by the Port of Seattle and the Port of Tacoma as equal members, with each port acting through its elected commissioners. The ports remain separate organizations retaining ownership of their respective assets. The NWSA manages import and export container and break-bulk cargo, auto shipping facilities, and some bulk terminals in the Seattle and Tacoma harbors.

### 1.2.3 PROPOSED PROJECT

The proposed Project is the rehabilitation of the existing marine cargo facilities at Terminal 5. The Project includes modifications to the existing Terminal 5 marine cargo facility in order to serve larger cargo vessels. The proposed changes consist of cargo wharf rehabilitation, deepening of the vessel berth, electrical service capacity improvements, and upland improvements to serve larger vessels and increase the container volume shipping capacity at Terminal 5. The proposed Project would rehabilitate Terminal 5 to serve existing large and emerging increased capacity container cargo vessels. Proposed actions also include reconfiguration of the existing upland marine cargo marshalling area, modification of intermodal rail facilities and pavement areas, improvement of stormwater systems, alteration of maintenance and repair buildings, and redesign of entrance/exit gates and heavy vehicle access points. General cargo loading and unloading, and vessel provisioning and fueling, and seasonal lay-berthing would continue at the terminal.

### 1.2.4 PROJECT LOCATION

Terminal 5 is located on the west shoreline of the West Waterway, in southwest Elliott Bay, approximately 1.5 miles southwest from the City of Seattle urban center. The street address for the site is 2701 26th Avenue SW, Seattle, Washington (see Figures 1.3-1 and 1.3-2).

### 1.2.5 PROPOSED ALTERNATIVES

This EIS evaluates the potential environmental impacts of constructing and operating two development alternatives and the No-Action Alternative.

**Alternative 1—No-Action Alternative.** The No-Action Alternative would continue marine cargo operations and other allowable uses similar to previous shipping activities during the past 15 years. The existing lay berthing, general cargo loading and unloading, and provisioning and fueling would continue at the terminal for all three alternatives.

**Alternative 2—Cargo Wharf Rehabilitation, Berth Deepening, and Increased Cargo Handling.** Alternative 2 proposes wharf rehabilitation, berth deepening, and upland improvements to allow for the service of larger vessels, and with the potential to increase container cargo shipping capacity to approximately 1.3 million twenty-foot equivalent units (TEUs) **annually**.

**Alternative 3—Cargo Wharf Rehabilitation, Berth Deepening, Increased Cargo Handling, and Additional Upland Improvements.** Alternative 3 proposes wharf rehabilitation and berth deepening similar to Alternative 2. The difference between the two alternatives is that Alternative 3 proposes additional upland improvements and provides sufficient site facilities to allow service of larger vessels with the potential to increase container cargo shipping capacity up to approximately 1.7 million TEUs **annually**.

**Schedule Assumptions for Implementation of Alternative Operations**—Alternative 2 would improve the container-handling efficiency of the existing site to serve larger **capacity** container vessels up to 18,000 TEUs that are anticipated to call at Terminal 5 through 2040. Alternative 2 would increase **container cargo** throughput capability of the existing Terminal 5 marine cargo site from 647,000 TEUs annually to approximately 1.3 million TEUs per year by 2030 and continuing at that level through the 2040 planning horizon. Modifications to the container cargo marshalling yard would be required to **effectively and efficiently transship up to** accommodate 1.3 million TEUs per year. **Terminal improvements would include the installation of more** efficient STS crane **equipment**, use of more efficient cargo handling equipment, and improvements for **increased use of** existing intermodal rail **shipping facilities**.

The **Alternative 2 EIS** analyses and evaluations for the proposed Terminal 5 actions are based on completion of Project actions **by 2019**, with cargo volumes increasing from approximately 647,000 TEUs to an upper capacity level of approximately 1.3 million TEUs by 2030. The actual throughput levels may be lower than the projected throughput at capacity as analyzed in this document due to **international shipping** conditions.

Proposed operations changes proposed with Alternative 3 would improve the container-handling efficiency of the existing site to serve larger container vessels (up to 18,000 TEUs) that are anticipated to call at Terminal 5 through 2040. The throughput capacity of the terminal would increase from its current capability of approximately 647,000 TEUs, to up to approximately 1.7 million. This option would **require an increased number** of more efficient STS cranes, use of more efficient **fixed rail and mobile** cargo handling equipment, and **reconfiguration of** the existing intermodal rail yard **serviced by rail-mounted gantry cranes**. It is anticipated that annual container

cargo volume at the site would increase gradually from the previous 647,000-TEU levels, reaching a maximum capacity of approximately 1.7 million TEUs.

The **Alternative 3** DEIS analyses and evaluations are based on completion of Project wharf strengthening, berth deepening, and initial electrical and utility actions in 2019. Cargo volumes are expected to increase from approximately 647,000 TEUs to a throughput level of approximately 1.3 million TEUs by 2030 and continuing on to 1.7 million TEUs by 2040. The actual throughput levels and expected progressive timeline of expansion for the proposed Project may be extremely variable due to market conditions.

Upland improvements described and evaluated for Alternatives 2 and 3 may be constructed over a longer period of time as capacity enhancements are required for operational needs. While the FEIS evaluates all ranges of facility operating capacity, specific permit approvals linked with these upland improvements would be obtained prior to construction. Any additional site development activities will be undertaken with appropriate environmental review, per Washington State Environmental Policy Act (SEPA) regulations. The Port and NWSA will use a public process for this environmental review.

#### 1.2.6 SELECTION OF A PREFERRED ALTERNATIVE

SEPA does not require the designation of a "preferred alternative" in an EIS. However, by identifying a preferred alternative, all EIS reviewers are informed which alternative the lead agency determines is best or appears most likely to be approved. If used, the preferred alternative can be identified at any time in the EIS process—scoping, DEIS, or FEIS.

Subsequent to the review of comments received on the Terminal 5 Improvements DEIS and supported by additional analysis and evaluation, the Port made a decision to select a Preferred Alternative. The Preferred Alternative is within the range of alternatives analyzed in the DEIS.

Alternative 2 was selected because it represents the infrastructure improvements necessary to serve larger capacity container cargo vessels at Terminal 5. Alternative 2 balances site improvements necessary for the Port and a marine terminal operator to make efficient and effective use of the terminal with the volume of container cargo anticipated at the site, based on expected container cargo growth rates.

The current EIS analyzes and evaluates actions that will be included in the Project to reduce, minimize, avoid, or mitigate the negative environmental effects anticipated from construction and operation of Terminal 5 consistent with the project described as Alternative 2 in the DEIS and modified in the FEIS based on public and agency comment. The current EIS will be used by the Port to plan future actions and by agencies and entities with authority for project approvals to assess the project and stipulate conditions required for authorization of the proposed project alternative. Agencies and approval entities may determine specific mitigation requirements as conditions of project authorization.

The Port is the property owner and the permit holder. In that capacity, the Port will ultimately be responsible for compliance with all permit requirements during the construction and completed

terminal operations. The NWSA is acting as the agent on behalf of the Port during the construction phase and subsequent terminal operations. This partnership does not diminish the Port's ultimate responsibility for permit compliance.

The Port and NWSA will eventually negotiate an agreement with a terminal operator for long-term use of the rehabilitated Terminal 5 cargo facility. The Port and NWSA will inform the proposed tenant or user of the obligations and conditions of approval essential for compliance with the permits for the site. Even in those situations where the tenant or user has undertaken the obligation for compliance, the Port and NWSA will remain responsible for complying with the permit conditions. The Port and NWSA will consult and provide assistance to the eventual tenant or user to help them comply with the permit conditions. Conditions of approval will be inserted in all lease and site use agreements with a selected marine terminal operator to ensure comprehensive compliance with city, state, federal, and Treaty tribe conditional approvals.

Based on the analyses, evaluations, and mitigation actions included in the FEIS, the Port will continue to seek project authorizations from city, state, federal, and Treaty tribe entities as required for rehabilitating Terminal 5 wharf, berth, and cargo facilities, providing project infrastructure improvements, and managing the impacts from operations resulting from that establishing container cargo capability up to 1.3 million TEUs.

Sustained Terminal 5 operations exceeding Alternative 2 container cargo projections, and inconsistent with the analyses and evaluations included in the EIS may require additional environmental review.

#### 1.2.7 AREAS OF CONTROVERSY AND UNCERTAINTY

Determinations for specific future marine cargo operations, methods, and practices that are likely to be employed at Terminal 5 have not been made. However, it is likely that future long-term facility operations will consider serving the Terminal 5 site with larger capacity vessels compared with vessels that commonly served the site in past decades. This DEIS provides analysis and evaluation of environmental effects due to a likely range of long-term operational conditions anticipated from a rehabilitated Terminal 5 facility.

#### 1.2.8 SCHEDULE AND PHASING

**Construction of the proposed** Project would begin as soon as city, state, and federal authorizations and approvals are received. The anticipated start for construction is mid-2017, with completion expected 2019. Upland/landside construction elements would continue throughout this time period while the proposed in-water wharf **strengthening and vessel berth** improvements would be **distributed over** three consecutive in-water work seasons to protect endangered species.

Upland improvements anticipated in the alternatives may be phased over a longer period of time. If upland improvements are phased, as required for operational needs, specific permit approvals linked with site development activities would be obtained prior to construction.

### 1.3 SUMMARY OF IMPACTS AND MITIGATION

The **Proposed Project Alternatives** – Potential Impacts and Mitigation Summary in Table 1.3-1 summarizes the potential impacts that would result from the alternatives analyzed in this DEIS. It also provides a summary of potential measures for avoiding and minimizing anticipated adverse effects for each of the alternatives. This summary table is not intended to be a substitute for the complete discussion of each element that is contained in Chapter 3. The table is intended to summarize how construction and operation of the proposed Project would likely impact each element of the built and natural environments. Impacts and potential mitigation are listed according to resource area.

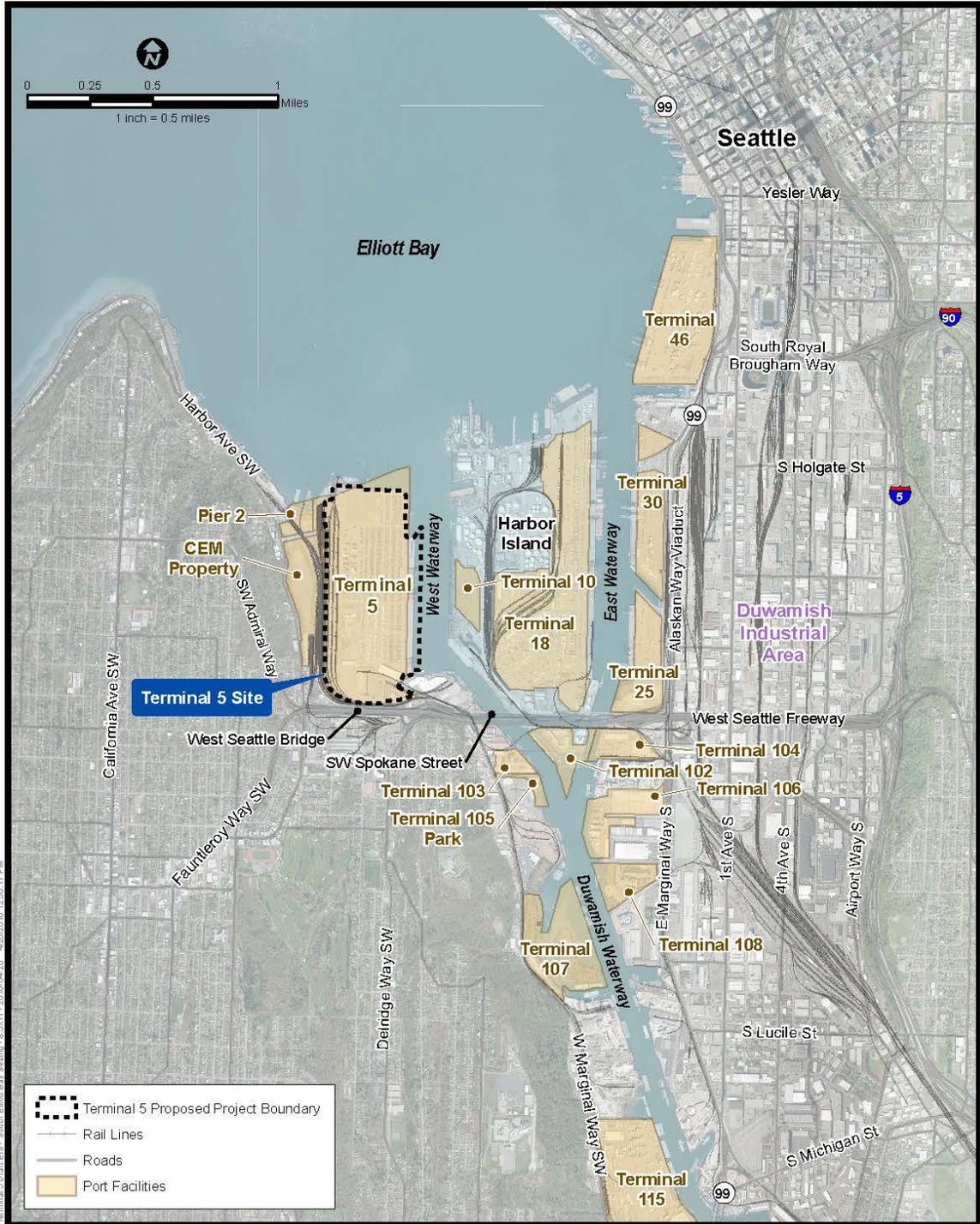


Figure 1.3.1: Vicinity Map

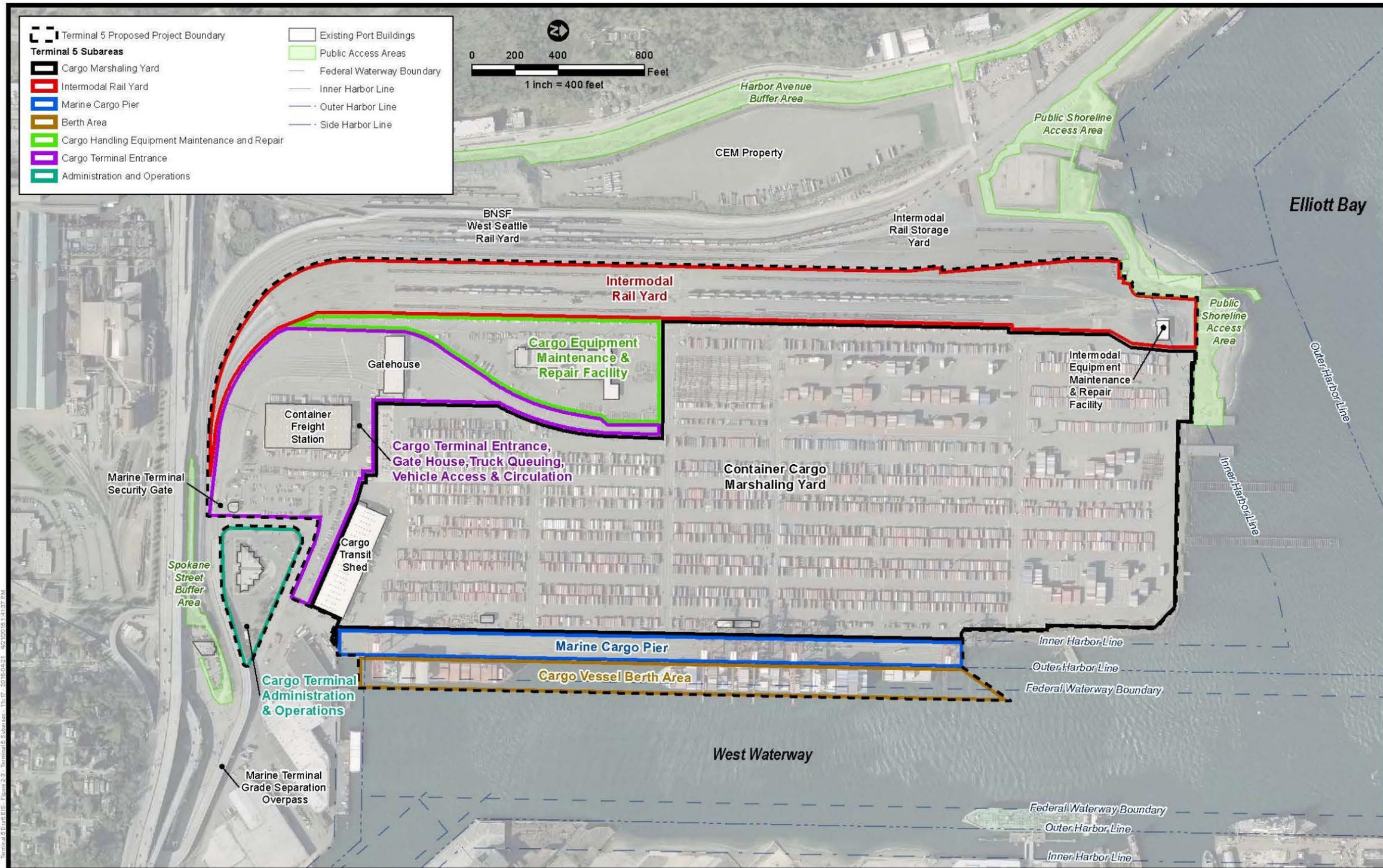


Figure 1.3.2: Terminal 5 Subarea Map

Table 1.3-1: Proposed Project Alternatives – Potential Impacts and Mitigation Summary

RESOURCES	PROPOSED PROJECT ALTERNATIVES – POTENTIAL IMPACTS AND MITIGATION SUMMARY					
	Alternative 1 No-Action		Alternative 2 Cargo Wharf Rehabilitation, Berth Deepening, and Increased Cargo Handling		Alternative 3 Cargo Wharf Rehabilitation, Berth Deepening, Increased Cargo Handling, and Additional Upland Improvements	
	Potential Impacts	Mitigation	Potential Impacts	Mitigation	Potential Impacts	Mitigation
Earth	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>Construction activities would be limited and include only minor alterations and routine maintenance and repair work. No impacts to earth are expected.</li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>Operational activities are not expected to cause impacts to earth.</li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>Construction BMPs to limit soil erosion.</li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>No mitigation proposed.</li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>Short-term slope stability issues during berth dredging.</li> <li>Short-term soil erosion from grading and earthwork activities.</li> <li>Potential for spills of hazardous substances.</li> <li>Excavation and fill for new substation may cause potential for erosion</li> <li>Potential for turbidity during dredge activities in the West Waterway.</li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>Risk of soil liquefaction, seismic lateral spreading, slope failure and ground shaking causing injury/death and structural damage during earthquakes.</li> <li>Long-term slope stability risk.</li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>SWPPP and BMPs to control stormwater runoff/erosion at the upland site.</li> <li>Conditions in construction stormwater permits.</li> <li>SPCCP used for hazardous materials storage, handling, and cleanup.</li> <li>BMPs to minimize turbidity generation during dredging.</li> <li>Compliance with Surface Water Quality Standards for Washington (WAC 173-201A).</li> <li>Conditions specified in the Water Quality Certification that manage turbidity during in water activities.</li> <li>Slope stabilization measures would be followed as recommended by geo-tech analysis.</li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>Design measures for all new structures will be consistent with state and federal regulations, seismic and building code, and standard construction methods to avoid and minimize earthquake impacts.</li> <li>Per established agreements with the City, the rehabilitation of the existing wharf and slope will be designed to meet or exceed performance of the existing system.</li> <li>For new structures, measures such as foundation tie beams and grade beams to minimize ground movements and/or movements of structures as a result of seismically induced settlement and lateral spreading should be incorporated.</li> <li>Slope stabilization measures including ground improvements, such as pinch piles, stone columns, drilled shafts, or other methods.</li> <li>Use of pile-supported structures where necessary for new designs.</li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>Same as Alternative 2 except more upland ground disturbance.</li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>Same as Alternative 2.</li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>Same as Alternative 2.</li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>Same as Alternative 2.</li> </ul>

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	Potential Impacts	Mitigation	Potential Impacts	Mitigation	Potential Impacts	Mitigation
Air Quality and GHG Emissions	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>Construction activities would be limited and include only minor alterations and routine maintenance and repair work and are not expected to result in adverse impacts to air.</li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>No change from existing terminal cargo use.</li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>No mitigation proposed.</li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>No mitigation proposed.</li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>Construction could cause short-term increases in local concentrations of dust and diesel-related air contaminants and possibly odors.</li> <li>No significant air quality impacts are expected.</li> <li>GHG emissions from construction activities were quantified during General Conformity review. GHG emissions were less than 10,000 tonnes/year. <b>The Department of Ecology considers emissions under 25,000 tonnes/year not significant.</b></li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>Model-predicted concentrations of criteria air pollutants, including shorepower capability, indicate that emissions do not exceed any National Ambient Air Quality standards (NAAQSs).</li> <li>No significant impacts are expected with health-protective NAAQSs, air quality standards.</li> <li>Facility operations would result in emission of GHG's, but no impact thresholds have been established. Given the world-wide nature of climate change issues, and the relatively small contribution from this facility, the Project would not result in significant impacts from GHGs.</li> <li>The Project would reduce world-wide emissions of GHGs due to improved efficiencies in commodity deliveries compared with existing transport systems – and due to improving emission controls in future years.</li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>Construction activities would comply with local, state, and federal air quality regulations requiring minimization of construction-related emissions.</li> <li><b>Implementation of BMPs to reduce potential for air quality impacts during construction identified in Chapter 3, Section 3.2.</b></li> <li><b>Require contractors to prohibit Tier 0 and Tier 1 off-road equipment, to have on-road fleet meet 2007 EPA engine standards or better, and to enforce an idle reduction plan.</b></li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>Measures intended to reduce operational emissions (including GHG Emissions) include: <ul style="list-style-type: none"> <li>Reduction of at-berth emissions from ocean-going vessels through the use of shorepower. The NWSA, the Port, and the terminal operator will prepare a shorepower utilization plan to meet projected shorepower utilizations levels.</li> <li>Through the Northwest Ports Clean Air Strategy, the NWSA has adopted a plan to require trucks entering container terminals to meet model-year 2007 EPA emissions standards in 2018.</li> <li>Development of facility will utilize an electrical power supplier that obtains &gt;90% of their power from non-fossil fuel sources, reducing greenhouse gas emissions for terminal operations.</li> <li>Operational management plans to reduce truck queuing and wait times, as outlined in proposed Queue Management Plan (FEIS, Volume II, Appendix C) will reduce idling of diesel drayage vehicles.</li> <li>Port will analyze Terminal 5 air quality performance following resumption of container cargo operations to ensure air quality evaluations included in the EIS are</li> </ul> </li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>The impacts would be the same as Alternative 2.</li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>The air impacts are the same or lower than Alternative 2.</li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>Same as Alternative 2.</li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>Conversion of diesel engine-powered container handling equipment to electrically powered equipment would avoid, minimize and reduce exhaust emissions. Alternative 3 maximizes the approach by electrifying most cargo handling moves.</li> <li>Measures intended to reduce operational emissions, including GHG Emissions include: <ul style="list-style-type: none"> <li>Reduction of at-berth emissions from ocean-going vessels through the use of shorepower. The NWSA, the Port, and the terminal operator will prepare a shorepower utilization plan to meet project shorepower utilization levels.</li> <li>Through the Northwest Ports Clean Air Strategy, the NWSA has adopted a plan to require trucks entering container terminals to meet model-year 2007 EPA emissions standards in 2018.</li> <li>Development of facility will utilize an electrical power supplier that obtains &gt;90% of their power from non-fossil fuel sources, reducing greenhouse gas emissions for terminal operations.</li> <li>Operational management plans to reduce truck queuing and wait times as outlined in proposed Queue Management Plan (FEIS, Volume II, Appendix C) will reduce idling of diesel drayage vehicles. will reduce idling of diesel drayage vehicles.</li> <li>Port will analyze Terminal 5 air quality performance following resumption of container cargo operations to ensure air quality evaluations included in the EIS are consistent with operations. Data and analysis will be in consultation with PSCAA.</li> </ul> </li> </ul>

RESOURCES	PROPOSED PROJECT ALTERNATIVES – POTENTIAL IMPACTS AND MITIGATION SUMMARY					
	Alternative 1 No-Action		Alternative 2 Cargo Wharf Rehabilitation, Berth Deepening, and Increased Cargo Handling		Alternative 3 Cargo Wharf Rehabilitation, Berth Deepening, Increased Cargo Handling, and Additional Upland Improvements	
	Potential Impacts	Mitigation	Potential Impacts	Mitigation	Potential Impacts	Mitigation
				consistent with operations. Data and analysis will be in consultation with PSCAA.		
Water	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>Construction activities include only minor alterations and routine maintenance and repair work and are not expected to result in adverse impacts to water.</li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>By not removing the creosote-treated timber piles, creosote from those piles remains in the environment.</li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>Continue to follow regulatory requirements and BMPs.</li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>Continued improvement to water quality as the requirements of the ISGP are implemented.</li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>Dewatering effluent from excavations extending into groundwater, stormwater runoff during construction activities, vessel activity, and releases of debris or sediments into the West Waterway during dredging and wharf rehabilitation activities.</li> <li>Removal of asphalt for pile installation on the uplands could lead to hazardous materials spills entering the soil and groundwater.</li> <li>Temporary increases in turbidity caused by suspended sediments during pile removal and pile driving activities.</li> <li>Dredging and pile driving could lead to localized impacts on water quality from turbidity.</li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>Potential “propwash” scour, deep sub-tidal aquatic are due to tug and vessel service.</li> <li>Vessel maneuvering may suspend sub-tidal sediments, affecting short-term, on site, water column turbidity.</li> <li>Any container cargo operation or cargo transportation facility is required to meet Clean Water Act rules. Cargo terminal are required to be covered under the Industrial Stormwater General Permit. The Washington State ISGP has benchmarks for effluent leaving the site that are some of the strictest in the nation.</li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>Adherence to the Construction Stormwater General permit and implementing erosion control and stormwater protection BMPs.</li> <li>Management of toxic and hazardous materials consistent with rules and regulations.</li> <li>Turbidity impacts from on-land and dredging activity monitored and minimized using BMPs.</li> <li>Design features and BMPs to avoid or minimize impacts would be used during construction. Those required by agency standards and permits would be assumed to be part of the proposal.</li> <li>If dewatering is required, the control and management would be implemented in accordance with regulatory requirements.</li> <li>Scour monitoring program would be implemented to observe and track any scour trends.</li> <li>Vessels would be required to follow all over-water work BMPs.</li> <li>Disposal of all dredged sediments would be consistent with DMMP and other jurisdictional agencies.</li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>Management of toxic and hazardous substances used during operations would be consistent with rules and regulations.</li> <li>Prior to reestablishing container cargo terminal operations, the facility would be reevaluated for the appropriate Level 3 Corrective Actions, requiring a new engineering report. The new engineering report would define treatment options and detailed construction plans for Ecology’s review and approval. Upon approval,</li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>Same as Alternative 2.</li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>Same as Alternative 2.</li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>Same as Alternative 2.</li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>Same as Alternative 2.</li> </ul>

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	Potential Impacts	Mitigation	Potential Impacts	Mitigation	Potential Impacts	Mitigation
				<p>the stormwater system would be constructed prior to beginning of operations.</p> <ul style="list-style-type: none"> <li>All operating equipment would be subject to BMPs and SPCC plans.</li> <li>Fueling, ballast water management, and vessel sewage management would comply with regulatory requirements.</li> <li>Bathymetric survey data to confirm vessel berth dimensions will also monitor substrate for evidence of “prop wash” disruption of sediments.</li> </ul>		
Plants and Animals	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>No change from existing conditions is expected other than minor repair and upgrade work.</li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>No change from existing conditions is expected.</li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>BMPs for construction implemented for minor repair and upgrade work.</li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>No mitigation proposed.</li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>Potential negative effects on migratory and resident fish and wildlife salmon from in-water pile driving noise, dredging, and presence of water-based construction equipment.</li> <li>Positive effects may include decrease in shading, removal of creosote-treated wood fender piles, and increased algae and invertebrate production, as well as reduce migratory impediments to salmon during the three-season construction period.</li> <li>Construction activities would be limited and include only minor alterations and routine maintenance and repair work and are not expected to result in adverse impacts to plants and animals.</li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>Lighting levels could impact plants and animals.</li> <li>Completed project would include modest reduction in area of over-water structure.</li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>All in-water work would be limited to periods determined appropriate by participating state and federal agencies.</li> <li>Water quality monitoring plan would be developed and implemented.</li> <li>All equipment would be inspected daily.</li> <li>SPCC plan would be developed and used for the duration of the Project.</li> <li>Waste materials would not be allowed to enter the West Waterway.</li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>Light fixtures would use directional shields and internal louvers to minimize light reflection onto the waterway.</li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>Same as Alternative 2.</li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>Same as Alternative 2.</li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>Same as Alternative 2.</li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>Same as Alternative 2.</li> </ul>
Environmental Health	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>Construction activities would be limited and include only minor alterations and routine maintenance and repair work and are not expected to result in adverse impacts to environmental health.</li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>Operational activities are not expected to result in adverse impacts to</li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>No mitigation proposed.</li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>No mitigation proposed.</li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>Potential to encounter, expose, or excavate buried contamination during construction.</li> <li>Potential increase in leaching of contaminants.</li> <li>Excavations for utilities may require dewatering and affect receiving waters.</li> <li>Some groundwater monitoring wells may need to be modified or become damaged</li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>Implement appropriate mitigation measures if cleanup areas are impacted during construction.</li> <li>Demolition of structures would require surveys.</li> <li>Site specific work plans that address management in known contaminated areas.</li> <li>Construction design would identify locations of known soil and groundwater contamination and</li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>Same as Alternative 2.</li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>Same as Alternative 2.</li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>Same as Alternative 2.</li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>Same as Alternative 2.</li> </ul>

RESOURCES	PROPOSED PROJECT ALTERNATIVES – POTENTIAL IMPACTS AND MITIGATION SUMMARY					
	Alternative 1 No-Action		Alternative 2 Cargo Wharf Rehabilitation, Berth Deepening, and Increased Cargo Handling		Alternative 3 Cargo Wharf Rehabilitation, Berth Deepening, Increased Cargo Handling, and Additional Upland Improvements	
	Potential Impacts	Mitigation	Potential Impacts	Mitigation	Potential Impacts	Mitigation
	environmental health.		<p>during construction.</p> <ul style="list-style-type: none"> <li>Disposal of materials requires characterization.</li> <li>Potential release of hazardous materials to the environment.</li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>No impacts expected.</li> </ul>	<p>provide specifications to guide management of contaminated soil and groundwater.</p> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>No mitigation proposed.</li> </ul>		
Noise	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>Construction activities would be limited and include only minor alterations and routine maintenance and repair work and noise impacts would be short term.</li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>No change from existing operations.</li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>No mitigation proposed.</li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>No mitigation proposed.</li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>Pile driving may be intrusive and potentially annoying at times. However, pile driving sound levels are expected to fully comply with the noise limits applied by the City of Seattle to these types of activities.</li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>Noise analyses and evaluation calculations indicate potential nighttime noise exceedances from cargo handling equipment and truck operations for future, more intense cargo activity.</li> <li>Pure tone safety alarms on mobile cargo handling equipment, although not regulated, are an annoyance noise.</li> <li>Train horn noise required for public and private crossings and presence of human activity, although not regulated, are an annoyance noise.</li> <li>On-vessel power generators are perceived as annoyance noise.</li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>Typical construction activities would be limited to between 7 AM and 10 PM weekdays and between 9 AM and 10 PM weekends and legal holidays.</li> <li>Impact pile driving would be limited to between 8 AM and 5 PM weekdays and between 9 AM and 5 PM weekends and holidays.</li> <li>Noise from all on-site construction activities would be subject to noise limits established by the City of Seattle.</li> <li>The Port will develop a construction noise management plan prior to start of construction in consultation with the Seattle Department of Construction &amp; Inspections (DCI).</li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>Establish an Operational Noise Management Plan/Program. Use of a noise management program would provide objective noise monitoring data and a mechanism to identify reasonable and feasible best practices to ensure compliance with applicable noise limits. The noise management program would include measurement, reporting, and compliance steps to meet applicable Seattle City noise limits. This program would be developed in consultation with the Seattle Department of Construction &amp; Inspections (DCI). (See Volume II, Appendix M, Operational Noise</li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>Same as Alternative 2.</li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>Same as Alternative 2.</li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>Same as Alternative 2.</li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>Same as Alternative 2.</li> </ul>

RESOURCES	PROPOSED PROJECT ALTERNATIVES – POTENTIAL IMPACTS AND MITIGATION SUMMARY					
	Alternative 1 No-Action		Alternative 2 Cargo Wharf Rehabilitation, Berth Deepening, and Increased Cargo Handling		Alternative 3 Cargo Wharf Rehabilitation, Berth Deepening, Increased Cargo Handling, and Additional Upland Improvements	
	Potential Impacts	Mitigation	Potential Impacts	Mitigation	Potential Impacts	Mitigation
				<p>Management Plan.)</p> <p>Annoyance Control Measures:</p> <ul style="list-style-type: none"> <li>Ensure that all mobile cargo handling equipment uses ambient-sensing, broadband safety alarms.</li> <li>Addition of safety measures to the rail corridor between the bridge across the Duwamish and the terminal. Adding safety measures to the rail use area, including perimeter fencing and installation of crossing gates would reduce the need for locomotive horns. These measures could also be used by the City of Seattle as a basis to begin the process of requesting this section of rail lines be converted into a railroad quiet zone.</li> <li>Reduction in noise from on-vessel power generators due to the provision of shorepower for moored vessels.</li> </ul>		
Land Use	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>Construction activities would be limited and include only minor alterations and routine maintenance and repair work and would not alter surrounding land uses or otherwise affect land use patterns.</li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>No change to land use is proposed.</li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>No mitigation proposed.</li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>No mitigation proposed.</li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>Construction activities would be temporary and would not alter surrounding land uses or otherwise affect land use patterns.</li> <li>Applicable shoreline, , and state and federal authorizations and approvals are required.</li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>Operational activities would not alter surrounding land uses or otherwise affect land use patterns.</li> <li>Shoreline permit authorizations will include conditions of approval, emphasizing essential compliance with noise code requirement and management of cargo related truck and rail traffic.</li> <li>The Port may need to obtain state aquatic area use authorization or PMA boundary amendments.</li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>The Port would obtain all required permits.</li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>The Port would work with DNR to obtain any necessary aquatic area use authorization or PMA boundary amendments required.</li> <li>The Port and the cargo terminal tenant would ensure compliance conditions of approval relating to noise and traffic</li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>Same as Alternative 2.</li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>Same as Alternative 2.</li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>Same as Alternative 2.</li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>Same as Alternative 2.</li> </ul>

RESOURCES	PROPOSED PROJECT ALTERNATIVES – POTENTIAL IMPACTS AND MITIGATION SUMMARY					
	Alternative 1 No-Action		Alternative 2 Cargo Wharf Rehabilitation, Berth Deepening, and Increased Cargo Handling		Alternative 3 Cargo Wharf Rehabilitation, Berth Deepening, Increased Cargo Handling, and Additional Upland Improvements	
	Potential Impacts	Mitigation	Potential Impacts	Mitigation	Potential Impacts	Mitigation
Relationship to Plans and Policies	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>Construction activities would be limited and include only minor alterations and routine maintenance and repair work and would be consistent with Plans and Policies.</li> <li>Century Agenda goals would not be met.</li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>No impacts expected.</li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>No mitigation proposed.</li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>No mitigation proposed.</li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>All proposed <b>rehabilitation and improvement actions planned and designed to be</b> is consistent with Plans and Policies.</li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>All proposed operations <b>managed for consistency</b> with Plans and Policies.</li> <li>Proposed Project addresses some of the goals in the Century Agenda.</li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>No mitigation proposed.</li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>No mitigation proposed.</li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>Same as Alternative 2.</li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>Same as Alternative 2.</li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>Same as Alternative 2.</li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>Same as Alternative 2.</li> </ul>
Aesthetics/ Light and Glare	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>Construction activities would be limited and include only minor alterations and routine maintenance and repair work.</li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>Operational activities are not expected to result in changes to the terminal aesthetics or light and glare.</li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>No mitigation proposed.</li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>No mitigation proposed.</li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>Construction of the proposed Project would introduce new temporary sources of light associated with utility and wharf construction, trucks, and other construction equipment.</li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>The proposed Project <b>includes use of improved lighting features.</b></li> <li>The aesthetics are not expected to change significantly as a result of Alternative 2.</li> <li>Current views of Terminal 5 are dominated by industrial facilities, operations, and activities. Views from public viewpoints are not expected to be <b>affected</b> by Alternative 2.</li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>Lighting associated with exterior construction activities would be controlled by City of Seattle regulations, potentially limiting the hours of construction, and thereby limiting construction lighting during nighttime hours. No other measures are expected to be required during construction.</li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>New lighting would be designed with the latest lighting <b>standards and best practices</b> to minimize glare and confine the lighting using directional lighting and shields. It is expected that new operational lighting <b>will not exceed level of existing lighting.</b></li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>Same as Alternative 2.</li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>Same as Alternative 2.</li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>Same as Alternative 2.</li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>Same as Alternative 2.</li> </ul>
Historic and Cultural Resources	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>Construction activities would be limited and include only minor alterations and routine maintenance and repair work. These activities would be consistent with current operations at Terminal 5.</li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>Terminal 5 is within the tribal Treaty fishing area. Vessel activity to and from Terminal 5 may, at times, move through these fishing areas. Existing Treaty fishing access/vessel access agreements with the Muckleshoot Indian Tribe and</li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>No mitigation proposed.</li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>The Port works in partnership with the Muckleshoot Indian Tribe and the Suquamish Tribe to avoid and minimize potential negative effects on Treaty fishing access due to cargo vessel activity. <b>Existing Treaty fishing access/vessel access coordination agreements with the Muckleshoot Indian Tribe and Suquamish Tribe would continue.</b></li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>Construction has the potential to interfere with undiscovered resources; however, the possibility of historic or cultural resources being present is low because Terminal 5 consists of filled upland areas.</li> <li>Water-based equipment used for piling construction and dredging activities could potentially disrupt Treaty fishing access.</li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>Terminal 5 is within the Treaty fishing <b>access</b> area. Increased capacity container cargo vessels serving Terminal 5, will operate in</li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>Construction would follow the SMC for Standards for Archaeological and Historic Resources. If archaeological resources are uncovered during construction, work would be stopped and the City of Seattle, affected tribes, and the Washington State Department of Archaeology and Historic Preservation would be notified.</li> <li><b>Piling and dredging</b> activities would be coordinated with Treaty fishing periods to minimize potential disruption of</li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>Same as Alternative 2.</li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>Same as Alternative 2.</li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>Same as Alternative 2.</li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>Same as Alternative 2.</li> </ul>

RESOURCES	PROPOSED PROJECT ALTERNATIVES – POTENTIAL IMPACTS AND MITIGATION SUMMARY					
	Alternative 1 No-Action		Alternative 2 Cargo Wharf Rehabilitation, Berth Deepening, and Increased Cargo Handling		Alternative 3 Cargo Wharf Rehabilitation, Berth Deepening, Increased Cargo Handling, and Additional Upland Improvements	
	Potential Impacts	Mitigation	Potential Impacts	Mitigation	Potential Impacts	Mitigation
	Suquamish Tribe would continue.		Treaty--protected fishing areas.	<p><b>Treaty fishing access.</b></p> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>The Port would continue to work in partnership with the Muckleshoot Indian Tribe and the Suquamish Tribe to avoid and minimize potential negative effects on Treaty fishing access due to cargo vessel activity. Existing Treaty fishing access/vessel access coordination agreements with the Muckleshoot Indian Tribe and Suquamish Tribe would continue, including coordination of Treaty fishing access and vessel movements in areas used by increased capacity container cargo vessels.</li> </ul>		
Transportation	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>Construction activities would be limited and include only minor alterations and routine maintenance and repair work. These activities would be consistent with current operations at Terminal 5.</li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>No impacts to traffic would be caused by the No-Action Alternative.</li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>No mitigation proposed.</li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>No mitigation proposed.</li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li><b>Construction activities would generate truck and employee trips, but less than No Action Alternative.</b></li> <li>Potential detours required during construction.</li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>Trains could increase from 9 to 18 trains in the peak week.</li> <li><b>Increased closure time at near-terminal grade crossing due to increased train volumes and switching movements.</b></li> <li><b>Expected additional utilization of storage tracks in the West Seattle Yard (WSY) to support the increased rail volume.</b></li> <li><b>Alternative 2 is projected to result in 1,080 additional Design Day truck trips. It would have the highest peak hour truck trips and is estimated to generate an additional 130 truck trips during the AM peak hour and 31 truck trips during the PM peak hour on the Design Day.</b></li> <li><b>Highest traffic impact on Lower Spokane Street and East Marginal Way between S</b></li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>BMPs for traffic control and safety during construction and adherence to SDOT permits and requirements. Coordination with other construction projects.</li> <li><b>Prepare a Haul Route Plan and Traffic Control Plan for work in City right-of-way.</b></li> <li><b>Coordinate with other construction projects in site vicinity.</b></li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li><b>At full operation, north leg of the intersection at SW Spokane Street/West Marginal Way SW/Chelan Avenue SW closed. All traffic to and from Terminal 5, as well as local industrial businesses located north and east of the rail lines north of West Marginal Way Southwest, should be directed to use the Terminal 5 Access Bridge. Interim measures could convert surface access to entrance only and install advance notification signs.</b></li> <li><b>When surface access is closed, provide</b></li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>Same as Alternative 2.</li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>Trains could increase from 9 to 24 trains in the peak week.</li> <li><b>Increased closure time at near-terminal grade crossing due to increased train volumes and switching movements.</b></li> <li><b>Increased capacity of the on-dock intermodal yard and increased use of WSY.</b></li> <li><b>Alternative 3 is projected to result in 2,180 additional Design Day truck trips. It is estimated to generate 74 AM peak hour trips and 19 PM peak hour trips on the Design Day.</b></li> <li><b>Highest traffic impact on Lower Spokane Street and East Marginal Way between S Hanford Street and Duwamish Avenue S, which are the primary routes between Terminal 5 and near-dock intermodal yards. Project would increase vehicle delay at key intersections along SW Spokane Street.</b></li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>Same as Alternative 2.</li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li><b>Add on terminal air system and locate qualified technicians on terminal to perform brake tests for staged cuts of cars.</b></li> <li><b>Some train building operations would have to be transferred to the WSY, and on-terminal air compressor equipment would be added so that the brakes on a fully-built train could be tested prior to connecting to the locomotive.</b></li> <li><b>All traffic mitigation measures would be the same as Alternative 2.</b></li> </ul>

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	Potential Impacts	Mitigation	Potential Impacts	Mitigation	Potential Impacts	Mitigation
			<p>Hanford Street and Duwamish Avenue S, which are the primary routes between Terminal 5 and near-dock intermodal yards.</p> <ul style="list-style-type: none"> <li>Project would increase vehicle delay at key intersections along SW Spokane Street.</li> <li>Gate queuing could increase.</li> <li>Pedestrian access to terminal could be affected by increased train blockages at West Marginal Way.</li> </ul>	<p>alternative pedestrian access to terminal.</p> <ul style="list-style-type: none"> <li>Comprehensive signal improvement along SW Spokane Street from Harbor Avenue SW to E Marginal Way S, and include the signal at E Marginal Way S/S Hanford Street. This project should include upgrading the signal controller at the five-legged intersection and improving interconnection equipment, if needed.</li> <li>Implement Gate Queue Management Plan.</li> <li>Implement additional driver information systems include advance signage about rail blockages and add Terminal 5 to the NWSA's Wait Time Awareness System.</li> <li>Improve access for industrial business located north and east of rail lines serving Terminal 5 and West Seattle Rail Yard by providing additional lane on Terminal 5 Access Bridge (if feasible), adding signage and striping along existing surface routes, and other measures.</li> <li>Continue to work with SDOT related to off-terminal truck parking.</li> </ul>	<ul style="list-style-type: none"> <li>Gate queuing could increase, but would be less than Alternative 2.</li> <li>Pedestrian access to terminal could be affected by increased train blockages at West Marginal Way.</li> </ul>	
Public Services	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>Construction activities would be limited and include only minor alterations and routine maintenance and repair work.</li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>Operational activities are not expected to result in adverse impacts.</li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>No mitigation proposed.</li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>No mitigation proposed.</li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>There could be an increase in service calls related to short-term traffic revisions, site security, and site construction, including potential construction-related injuries and accidental fires.</li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>Additional security services may be needed due to increase in container terminal traffic.</li> <li>Emergency access routes will be maintained.</li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>On-site security features, such as fencing and securing areas where equipment is stored, could be implemented to reduce the potential for construction-related incidents.</li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>POSPD would coordinate with US Coast Guard on security plans.</li> <li>Existing utility systems would be installed and improved, as needed.</li> <li>Routes for emergency response and apparatus from public right of way</li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>Same as Alternative 2.</li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>Same as Alternative 2.</li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>Same as Alternative 2.</li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>Same as Alternative 2.</li> </ul>

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	Potential Impacts	Mitigation	Potential Impacts	Mitigation	Potential Impacts	Mitigation
				through the site would be provided.		
Utilities	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>Construction activities would be limited and include only minor alterations and routine maintenance and repair work.</li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>ISGP would require meeting benchmarks.</li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>No mitigation is proposed.</li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>Stormwater adaptive management may be required if ISGP benchmarks not met.</li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>Utility upgrades would be constructed or installed to meet anticipated site demand and to comply with all applicable local, state, and federal code requirements. Implementation of any improvements would be coordinated with, and approved by, the applicable utility provider.</li> <li>Lighting associated with exterior construction activities would be controlled by City of Seattle regulations, potentially limiting the hours of construction, and thereby limiting construction lighting during nighttime hours.</li> <li>Upgrade to the existing electrical power supply to Terminal 5 by SCL.</li> <li>Water and sewer distribution system would be removed and replaced.</li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>No impacts.</li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>Stormwater improvements would meet state and City of Seattle stormwater regulations.</li> <li>Mitigation measures for utility construction impacts would include those described for general construction activities on the terminal site (see Chapter 2, Section 2.3.2). Construction impacts required for utility.</li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>Proposed lighting levels would conform to all applicable federal, state, and local standards. Mitigation to minimize light and glare impacts is described in Section 3.9.</li> <li>Compliance with the Clean Water Act through compliance with Industrial Stormwater General Permit and City Stormwater code provides the regulatory-based mitigation standards for potential operational impacts to stormwater. See Section 3.3 and Volume II, Appendix D for detailed information.</li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>Additional upgrades to the existing power supply to the terminal would be required to accommodate electrification of the new equipment and systems.</li> <li>Removal of most of high mast lighting in the container yard and only new lighting in the truck circulation areas and near the wharf.</li> <li>New conduit duct bank system.</li> <li>Water and sewer distribution system would be removed and replaced.</li> <li>Relocated buildings.</li> <li>May need more aggressive BMPs for stormwater.</li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>Same as Alternative 2.</li> </ul>	<p><u>Construction</u></p> <ul style="list-style-type: none"> <li>Same as Alternative 2.</li> </ul> <p><u>Operational</u></p> <ul style="list-style-type: none"> <li>Same as Alternative 2.</li> </ul>