City of Seattle

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**CITY OF SEATTLE**
**ANALYSIS AND DECISION OF THE DIRECTOR**
**OF THE DEPARTMENT OF PLANNING AND DEVELOPMENT**

**Application Number**: 3006902 and 3006903

**Applicant Name**: Matthew Blinstrub for the Port of Seattle

**Address of Proposal**: 3225 East Marginal Way South (Terminal 25)
2715 East Marginal Way South (Terminal 30)

## SUMMARY OF PROPOSED ACTION

**Project #3006902**: Shoreline Substantial Development Application to allow upgrades to terminal container cargo facility, creating one large container cargo facility of approximately 95 acres, spanning both Terminals 25 and 30. Project includes remodeling of existing gatehouse, construction of two optical character recognition portals, a customs building and electrical substation. Surface parking for 28 vehicles to be provided. Environmental Impact Statement prepared by the Port of Seattle. Related projects at T30-3006903 and T91-3006901.

**Project #3006903**: Shoreline Substantial Development Application to allow restoration of the container cargo facility at Terminal 30. Project includes demolition of existing cruise building, installation of four container cranes, construction of six new structures including two optical character recognition portals and remodeling of one existing building. Surface parking for 198 vehicles to be provided. Project also includes replacement of existing timber pile fender system and 59,000 cu. yds. of dredging with off site disposal. Environmental Impact Statement prepared by the Port of Seattle. Related projects at T25-3006902 and T91-3006901.

The Seattle Municipal Code (SMC) requires the following approvals:

**Shoreline Substantial Development Permit** - To allow restoration of container cargo facility in an Urban Industrial (UI) shoreline environment pursuant to Seattle Municipal Code. (SMC 23.60.020 and 23.60.720)

**SEPA** - For conditioning only. (Chapter 25.05 Seattle Municipal Code)

**SEPA DETERMINATION**: [ ] Exempt [ ] DNS [ ] MDNS [X] EIS**

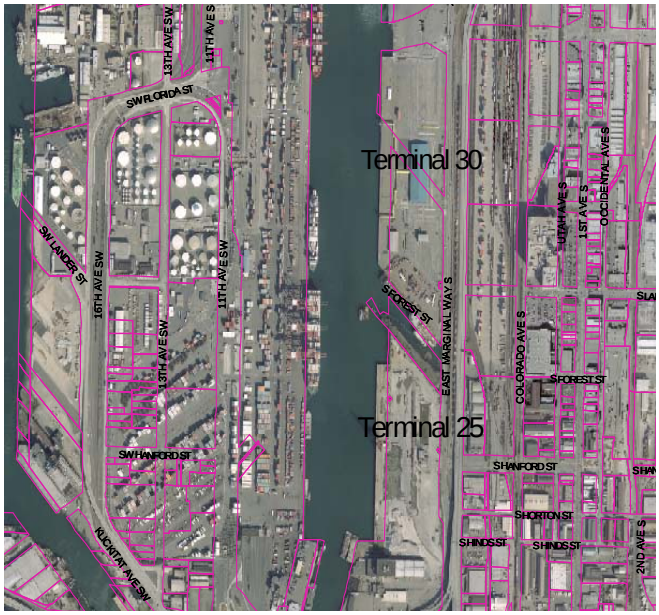
[ ] DNS with condition

[ ] DNS involving non-exempt grading or demolition or involving another agency with jurisdiction.

** The Port of Seattle has disclosed the environmental impacts of the proposal in its *Terminal 30 Container Reactivation and Cruise Terminal Relocation (DEIS) (October, 2006*) which contains the main body of information regarding the proposal, and *Final Environmental Impact Statement (FEIS) (December 2006)* which responds to public and agency comments and provides supplementary information. Together, these documents constitute the complete SEPA evaluation of the proposal. The Final SEPA Decision was adopted by the Port on February 20, 2007. On March 6, 2007 an appeal of the FEIS was filed with the Port's General Counsel. On March 16, 2007, the Hearing Examiner for the Port granted the Port's Motion to Dismiss the appeal.

## Site Location and Zoning

The Terminal 30 (T-30) project site is located at 2715 East Marginal Way South in the City of Seattle, along the eastern edge of the East Waterway, which is part of the Duwamish Waterway. The project site is located in the SE quarter of Section 7, Township 24 North, Range 4 East, King County, Washington. Terminal 25 (T-25) is located south of T-30 and Pier 27, Slip 27 and Pier 28 are designated areas located between T-25 and T-30. These designated areas are proposed for consolidation as one container terminal facility. The combined sites comprise approximately 87.5 acres of upland and shore land marine cargo marshaling area, warehouse structures, cargo piers, repair and maintenance facilities, and marine passenger improvements.




The property is within an Urban Industrial (UI) shoreline environment and is zoned General Industrial I with a 85-foot height limit (IG-1/U85).

## Project Background

The Port's T-25 and T-30 have been marine terminals for decades. The combined site comprises approximately 87.5 acres of upland and shore land marine cargo marshaling area, warehouse structures, cargo piers, repair and maintenance facilities, and marine passenger improvements. Upland area used by the Port for water-dependent industrial and marine cargo uses is entirely port-owned. Existing container cargo piers are located in area controlled by the state as part of the East Waterway. The existing container cargo piers are piling-supported structures on Washington Department of Natural Resources (WDNR) property.

Immediately south of the subject site on the south end of T-25 is the site for a new public refrigerated warehouse (not part of the current proposal). Immediately north is Jack Perry Memorial Viewpoint, developed by the Port to provide required public shoreline access. Additional marine industrial and other industrial facilities and operations on privately-owned sites are present west, south, and east of the T-30 site. These include: a Coast Guard facility to the north; and rail yards, manufacturing, distribution, and warehouses to the east and southeast.

The first element of the Preferred Alternative is the reactivation of container terminal use at Terminal 30 (T-30) and the consolidation of Terminals 25 (T-25) and 30 into one container facility. T-25 and T-30 are located west of East Marginal Way South in Seattle, across the East Waterway from Harbor Island. The facility includes an upland area and a container cargo pier over water and currently has room for two cruise ships at berth. The upland area has flat surfaces consisting of compacted fill covered with asphalt paving. Concrete piles support the concrete container cargo pier (apron) that runs along the western edge of the terminals. A container terminal operator is currently using T-25, P-28, and portions of T-30 at the south and north ends for their operation. The balance of T-30, located in the center, is being used as a cruise terminal facility. The Port of Seattle police satellite office is also located on the terminal grounds. A general layout showing existing conditions is shown in Figure 2.1-2 of the DEIS. The cruise

terminal would be relocated, and the current container terminal operator tenant would be moved to an alternate location. T-25 and T-30 would be converted to a single larger container terminal as part of this project and would be operated by a container terminal operator (see Figure 2.1-3). Components of the Terminal 30 Container Reactivation element are described in detail below.

## Proposed Project Overview

The Port of Seattle proposes to relocate the existing T-30 passenger cruise ship operations to a new permanent passenger cruise ship facility, to be constructed on the south end of P-91 (at T-91). T-25 and T-30 would be converted to a single larger container terminal as part of this project and would be operated by a container terminal operator (see Figure 2.1-3). Components of the Terminal 30 Container Reactivation element are described in detail below.

*Project Elements:*

- Site Preparation Work
- Construction
- In-Water and Over-Water Work
    - Piling Foundations
    - Fender System
    - Crane Beams
    - Apron Asphalt Pavement
    - Sheet Pile Wall
    - Transition Slab
    - Excavation
    - Pier 28 Modifications
    - Dredging
- Parking and Transportation Improvements
- Soil and Sediment Cleanup
- Compensatory Habitat Mitigation
- Utilities
    - Water System
    - Sanitary Sewer
    - Storm Drain System
    - Port-Owned Electrical Distribution
    - Electrical Power Connections for Container Cranes
    - Lighting
    - Fire Hydrants
- Construction Laydown Area

Following is a detailed description of the Project Elements:

### Site Preparation Work

The first phase of site preparation would include regulated material abatement, removal of the existing cruise terminal building on the site, and removal of all cruise operation facilities. Underground utilities encountered during project demolition and construction would be removed or abandoned in place. Other aboveground structures that may be removed include: light poles, fences, curbs, landscaping, stairs, vaults, fire hydrants, guardrails, fences, billboards and other appurtenant structures. A thicker asphalt overlay would be installed on the existing paved area, over the existing rail tracks, and as needed to prepare the site.

## Construction

The project includes the remodel of an existing building for labor, management and terminal operations and installation of other small modular, prefabricated buildings as needed to service the site. Buildings to be remodeled include the longshoreman building; possible reuse of guard shack; modify crane shop canopy structure (shorten); and a new 40 x 60 foot shop canopy. Buildings to be installed or relocated on the site include a new modular kiosk with phones for trouble service; two new US Customs and Border Protection (CBP) booths; a new container trucking gate system; RTG concrete pads or runways (Rubber-Tired Gantry – a traveling crane used to move and position containers in a container yard) to serve 1854 feet of a 6 container wide row arrangement; and a steel framed 3 level high platform (reefer rack system) to access grounded and stacked 4-high reefer containers. Four new 100-foot gage cranes would also be installed.

## In-Water and Over-Water Work

In-water and over-water work includes an upgrade of approximately 1,545 lineal feet of existing apron area for one 1,500 foot berth to serve ships capable of 8,000 TEU (Twenty Foot Equivalent Unit – a unit of measurement equal to the space occupied by a standard 20-foot container) and crane rails to support large container cranes requiring rail capacity of 45,000 pounds per foot. Work is described in more detail below.

*Piling Foundations* – Modern container crane wheel loads are on the order of 45,000 pounds per foot compared to approximately 22,500 pounds per foot for previous generations. Strengthening of T-30 is required to support the proposed cranes. Approximately 1,545 feet of T-30 structural upgrades are proposed. Structural modifications to the existing T-30 container cargo pier are required to strengthen the apron in preparation for container terminal operations to recommence. An additional two piles per bent are required to support the waterside crane beam and 13 piles over approximately 140 feet between Bents 63 to 70 are required to support a section of the landside beam. Approximately 165 new piles would be required. All piles are to be 24-inch octagonal pre-stressed concrete piles.

*Fender System* – The existing fender system consists predominately of treated timber piles, walers (horizontal lumber pieces used to span or stiffen walls) and chocks (a fitting through which anchor or mooring lines are led) which have been supplemented to include steel fender piles to serve the cruise ships. Removal of the existing continuous fender system would remove approximately 95 creosote-treated timber piles and 56 steel piles and all associated timber walers and chocks. This will reduce over-water coverage by approximately 3,875 square feet. The proposed fender system will be comprised of a rubber fender element faced with a steel panel installed at 60-foot intervals. The unit fenders will project approximately 4 ft 6 inches from the face of concrete and are expected to be no greater than 6 feet wide, resulting in a proposed total over-water coverage of 780 square feet. The net reduction in over-water coverage for fender replacement is approximately 3,095 square feet. The existing face and new face of concrete will not change. However, the existing fender system projects nominally 2 foot 9 inches from the face of concrete while the new fenders will project 4 foot 6 inches. The project will require the installation of approximately 175 new concrete piles.

*Crane Beams* – The existing waterside crane beam will be upgraded by removing an existing pre-cast panel 6 feet from the waterside and replacing it with a new larger reinforced concrete crane beam approximately 7 feet deep. A new landside beam supported by piles will be added at

bents 63 to 80. Both the existing and proposed pre-stressed concrete piles will be incorporated into the new beam.

*Apron Asphalt Pavement* – In order to seal the deck surface and to facilitate load distribution in conjunction with the ballast, asphalt pavement overlay will be applied to the apron. The net area of coverage will be approximately 3.5 acres. The existing drains will be preserved and asphalt will be prevented from falling in the water using risers at the drain locations.

*Sheet Pile Wall* – To reduce settlement and associated maintenance and to support the landside beam, a continuous steel sheet pile wall with a concrete pile cap will be installed extending to a depth of approximately -15-foot elevation. The steel sheet sections are anticipated to be an AZ 28 or similar section with sheets 25 feet long.

*Transition Slab* – A cast-in-place concrete slab approximately 7 feet wide that will be supported by the bulkhead at one end and supported on-grade at the other end will be installed. This 1-foot thick transition slab will provide a more gradual grade transition behind the bulkhead, which will improve terminal efficiency.

*Excavation* – Approximately 1,400 cubic yards of excavation behind the existing landside crane beam at the yard/apron interface may be required to install the proposed landside sheet pile cap and transition slab. The excavation will be backfilled with the existing material or will be replaced with other suitable granular fill.

*Pier 28 Modifications* – A small portion of Pier 28 in the corner area of Bent 50 adjacent to the landside bulkhead lacks strength for the current generation of container handling equipment. In order to upgrade the deficient area of about 2,500 square feet, retrofits of five pile caps are proposed, with additional reinforced concrete integrated with the existing piles caps. Reinforcement will be drilled in and bonded to the existing pile caps, and a section of concrete will be cast around the pile cap.

*Dredging* – The Port proposes to dredge the berth area in front of T-30 to accommodate deep-draft container ships. The berths will be dredged to an elevation of -51.0 ft (-50 ft plus 1 ft overdredge allowance) to provide adequate margin of safety against vessels running aground. The dimensions of the proposed dredging are 1,500 feet along the face of the terminal starting at the north end of T-30 apron extending to the south, with a maximum width of approximately 180 feet, and outboard length of approximately 1,800 feet to provide sufficient depth for navigation into and out of the berth. The area would be dredged from its existing depth of approximately –44 feet MLLW to a depth of –50 feet MLLW, plus 1-foot allowable over-dredge. In total, approximately 59,000 cubic yards of material would be removed from the project site. Sediment characterization of the dredged material was conducted in mid-July 2006 per the Dredged Material Management Plan (DMMP) guidelines to assess the material's suitability for open-water disposal. It is anticipated that most of the dredged material will be suitable for open-water disposal. A portion from T-30 may be unsuitable and would be disposed of at an approved upland facility.

At the same time, the DMMP also issued a Suitability Determination approving the sediment characterization results for the dredging proposed at T-91 (related Project 3006901). The majority of the sediments at T-91 are suitable for open-water disposal. A portion of the east berth at T-91 is rock. Rock is not considered to be suitable for open-water disposal and will therefore

be disposed of at an upland disposal facility in accordance with the procedures identified in Section 3.36B.2 of the DEIS. Dredging for the project will consider the applicable environmental regulations and Harbor Island Superfund site requirements.

Dredging will be performed using a mechanical clamshell dredge. If the sediment is suitable for open-water disposal, the dredged material will be placed into a split hull (bottom dump) barge for transport by tugboat to the Elliott Bay open-water disposal site. Barge disposal would occur within defined boundaries of the Elliott Bay open-water disposal site. (See DEIS Volume I, Chapter 3, Section 3.3B Water- Dredging at Terminal 30 for more information).

**Parking and Transportation**

The project proposes to relocate and provide additional longshoreman parking on the site. Striping, fencing, barricades, gates, sheds and signage would be required. There will be an equipment vehicle parking area on-site, which will be surfaced with a concrete slab with a raised perimeter to isolate stormwater runoff from adjacent areas entering the parking area or allowing stormwater from the parking area to flow to adjacent areas. The parking area will be equipped with an oil/water separator and spill control device.

The current terminal operation plan calls for inbound truck traffic to normally enter the terminal at T-30 and to exit the Terminal at T-25. The T-30 Truck Entrance Gate Facility is planned to include eight truck queuing lanes and emergency/bypass lanes on either side of the queue lanes (10 lanes total). Each of the queuing lanes will include truck scales. Three of the inbound lanes will be reversible to serve as backup exit lanes. Other features of the T-30 gate facility will include an overhead programmable sign bridge for inbound traffic and a small open steel structure (enclosure) to house optical character recognition (OCR) equipment that will read information from the truck, chassis, and container as they drive through the enclosure. OCR equipment enclosures will be provided on both sides of the gate, accommodating both inbound and outbound trucks. A station will also be located on the terminal side of the gate to inspect outbound containers.

The exit gate at T-25 will include four to five processing stations, consisting of communications pedestals, primary and secondary protection stations, and OCR equipment and enclosure. The exit gate also includes a US Customs and Border Protection (CBP) inspection area for containers that do not pass the primary or secondary container radiation screening process. It is anticipated the existing entrance gate at T-25 will only be used for trucks with empty containers.

**Utilities**

Utilities associated with this project include water for potable service and fire protection, sanitary sewer, storm water drainage, and electrical service. The extent of utilities work, other than associated with electrical, is limited. New fire hydrants will be provided at each new or relocated light pole (4 locations) with associated piping back to the nearest water main. Storm drainage provisions will be provided in areas that are disturbed by the construction, specifically at the site of the former cruise building location and at the new equipment parking slabs, and possibly at isolated locations where pavement overlays cannot be installed to prevent localized ponding. Storm drainage modifications may include installing water quality treatment devices or retrofitting catch basins with special treatment filters. A small diameter water line service to the proposed guard facility at the north gate would connect to an adjacent water main located just west of the proposed guard facility. The building will also require a sanitary sewer service,

which will be routed from the building to the sanitary sewer main located within the adjacent roadway.

The project will add electrical connections and stacking facilities for refrigerated cargo containers (reefers) and upgrade the electrical system to support four large container cranes. The project will also provide an electrical conduit system and electrical capacity sufficient for future shore power installation (see DEIS, Volume I, Section 3.14 – Utilities for more information on shore power). Electrical work may also relocate existing reefer outlet plugs, extend conduit, and modify T-25. Modifications or removal of existing substations are proposed along with associated equipment. At least one new substation will be installed.

**Excavation**

Minimal excavation would be required for trenching of utilities and site preparation work. A portion of dredged material from T-30 may be unsuitable for open-water disposal. Dredging will be performed using a mechanical clamshell dredge.

**Construction Laydown Area**

Up to four temporary construction trailers may be placed on T-30 during building and pier improvement construction work: two for storage, and two for temporary office use. Construction trailers are typically 12 feet wide by 56-feet long (672 square feet of interior space), and 12 feet high. The painted exterior of the trailers would be a neutral color. Construction contractors typically select energy-efficient trailers for temporary construction use. The trailers would be equipped for electrical heating. No excavation is required for placement of temporary construction office and storage trailers, as no permanent foundations would be constructed. Utility services (water, power, and telecommunications) would be provided through connections to existing site utilities, or provided by the contractor (e.g., portable toilets). Vehicular access to trailers would be across the paved expanse of T-30. There would be no striped or designated parking spaces associated with temporary trailers, as none is required. Approximately 6 employees would use the temporary office trailers on a regular basis during construction.

Public Comment

Notice of Application was published on March 29, 2007. The public comment period closed April 27, 2007. DPD received no comments on this proposal.

## ANALYSIS - SHORELINE SUBSTANTIAL DEVELOPMENT

Section 23.60.030 of the Seattle Municipal Code provides criteria for review of a shoreline substantial development permit and reads: *A substantial development permit shall be issued only when the development proposed is consistent with:*

*A. The policies and procedures of Chapter 90.58 RCW;*

*B. The regulations of this Chapter; and*

*C. The provisions of Chapter 173-27 WAC*

*Conditions may be attached to the approval of a permit as necessary to assure consistency of the proposed development with the Seattle Shoreline Master Program and the Shoreline Management Act.*

Chapter 90.58 RCW is known as the Shoreline Management Act of 1971. It is the policy of the state to provide for the management of the shorelines of the state by planning for and fostering all reasonable and appropriate uses. This policy seeks to protect against adverse effects to the public health, the land and its vegetation and wildlife, and the waters of the state and their aquatic life, while protecting generally public rights of navigation and corollary incidental rights. Permitted uses in the shorelines shall be designed and conducted in a manner to minimize, insofar as practical, any resultant damage to the ecology and environment of the shoreline area and any interference with the public's use of the water. The proposed improvements to Terminals 25 and 30 would not adversely impact the state-wide interest of protecting the resources and ecology of the shoreline, and the improvements would provide for the continued operation of a facility that is dependent upon its location in a shoreline of the state. The subject application is consistent with the procedures outlined in RCW 90.58.

The Shoreline Management Act provides definitions and concepts, and gives primary responsibility for initiating and administering the regulatory program of the Act to local governments. The Department of Ecology is to primarily act in a supportive and review capacity, with primary emphasis on ensuring compliance with the policy and provisions of the Act. As a result of this Act, the City of Seattle adopted a local shoreline master program, codified in the Seattle Municipal Code at Chapter 23.60, that also incorporates the provisions of Chapter 173-27, WAC. Title 23 of the Municipal Code is also referred to as the Land Use and Zoning Code. Development on the shorelines of the state is not to be undertaken unless it is consistent with the policies and provisions of the Act, and with the local master program. The Act sets out procedures, such as public notice and appeal requirements, and penalties for violating its provisions which have also been set forth in the Land Use Code.

In evaluating requests for substantial development permits, the Director must determine that a proposed use meets the relevant criteria set forth in the Land Use Code. The Shoreline Goals and Policies, part of the Seattle Comprehensive Plan, and the purpose and locational criteria for each shoreline environment must be considered. A proposal must be consistent with the general development standards of Section 23.60.152, the specific standards of the shoreline environment and underlying zoning designation, any applicable special approval criteria, and the development standards for specific uses.

The proposed development actions occur on land classified as a waterfront lot (SMC 23.60.924) and is located within an Urban Industrial (UI) shoreline environment. The proposed improvements are associated with a cargo terminal use and as such are a permitted use in the UI shoreline environment and the underlying IG-1 zone.

**Shoreline Policies**

All discretionary decisions in the shoreline district require consideration of the Shoreline Goals and Policies, which are part of the Seattle Comprehensive Plan's Land Use Element, and consideration of the purpose and locational criteria for each shoreline environment designation contained in SMC 23.60.220. The policies encourage and support the retention and expansion of existing water-dependent businesses uses at Terminal 25 and 30 (please refer to Land Use Policies LU231 – LU270). An area objective for this portion of the East Duwamish Waterway is to encourage industrial and port uses where such sues are already concentrated, while at the same time to protect and enhance migratory fish routes and feeding areas (please refer to Area Objectives for Shorelines of Statewide Significance, Policy LU2691d). The purpose of the Urban Industrial (UI) environment as set forth in Section 23.60.220 C11 is to preserve areas for

water-dependent and water-related uses while still providing some views of the water from adjacent streets and upland residential streets.

The proposed improvements to Terminals 25 and 30 would facilitate the cargo terminal use, as supported by both the purpose of the UI shoreline environment and the policies set forth in the Land Use Element of the Comprehensive Plan. The relocation of the cruise terminal facility and the expansion of the cargo terminal would provide facilities for the growth of the container cargo volume.

**SMC 23.60.032 – Criteria for Special Use Approval – Dredging**

*A. That the proposed use will be consistent with the policies of RCW 90.58.020 and the Shoreline policies;*

The subject site is designated Urban Industrial and a water dependent use such as a container cargo facility is permitted outright in this zone and shoreline environment. The proposed dredging in front of Terminal 30 is necessary for the proposed use by cargo vessels mooring at the Terminal. The subject proposal would provide the minimal clearance needed for efficient use of the facility. The Port of Seattle will use best management practices during dredging operations and comply with any other conditions required by the Director.

*B. That the proposed use will not interfere with the normal public use of the shorelines;*

The proposed dredging would occur in a commercial area generally unsuited for public use. A public shoreline access area, known as the Jack Perry Memorial Viewpoint, is located immediately north of the Terminal 30 site, away from the dredging activities. The proposed dredging activities would not interfere with the public use of the Jack Perry Memorial Viewpoint.

*C. That the proposed use of the site and design of the project will be compatible with other permitted uses within the area;*

The immediate area has major marine related commercial and industrial development. The use of the site as commercial moorage by Port of Seattle is considered to be compatible with the permitted uses in the area. The proposed dredging would be of short duration and would not interfere with navigation through the East Duwamish Waterway.

*D. That the proposed use will cause no unreasonably adverse effects to the shoreline environment in which it is to be located; and*

Dredging may have negative long term impacts on the aquatic environment through disrupting the benthic and epibenthic organisms that live in and on the sediment, respectively. There are contradicting studies on the impacts of dredging.

Best management practices will be used during the dredging operation to minimize the turbidity of the water and to avoid the times when the majority of juvenile salmonids are present.

Therefore the impacts from dredging will be mitigated.

*E. That the public interest suffers no substantial detrimental effect.*

No substantial determent to the public interest is anticipated as a result of this proposal. The ecology and water quality will be protected for the long-term benefit by the use of the required best management practices for the project during dredging activities. Fish and habitat would be protected by the dredging occurring during the off-season fish migration window.

## SMC 23.60.152 - Development Standards for all Environments

These general standards apply to all uses in the shoreline environments. They require that design and construction of all uses be conducted in an environmentally sound manner, consistent with the Shoreline Management Program and with best management practices for the specific use or activity. All shoreline development and uses are subject to the following:

A. The location, design, construction and management of all shoreline developments and uses shall protect the quality and quantity of surface and ground water on and adjacent to the lot and shall adhere to the guidelines, policies, standards and regulations of applicable water quality management programs and regulatory agencies. Best management practices such as paving and berming of drum storage areas, fugitive dust controls and other good housekeeping measures to prevent contamination of land or water shall be required.

B. Solid and liquid wastes and untreated effluents shall not enter any bodies of water or be discharged onto the land.

C. Facilities, equipment and established procedures for the containment, recovery and mitigation of spilled petroleum products shall be provided at recreational marinas, commercial moorage, vessel repair facilities, marine service stations and any use regularly servicing vessels with petroleum product capacities of ten thousand five hundred (10,500) gallons or more.

D. The release of oil, chemicals or other hazardous materials onto or into the water shall be prohibited. Equipment for the transportation, storage, handling or application of such materials shall be maintained in a safe and leak proof condition. If there is evidence of leakage, the further use of such equipment shall be suspended until the deficiency has been satisfactorily corrected.

E. All shoreline developments and uses shall minimize any increases in surface runoff, and control, treat and release surface water runoff so that receiving water quality and shore properties and features are not adversely affected. Control measures may include, but are not limited to, dikes, catchbasins or settling ponds, interceptor drains and planted buffers.

F. All shoreline developments and uses shall utilize permeable surfacing where practicable to minimize surface water accumulation and runoff.

G. All shoreline developments and uses shall control erosion during project construction and operation.

H. All shoreline developments and uses shall be located, designed, constructed and managed to avoid disturbance, minimize adverse impacts and protect fish and wildlife habitat conservation areas including, but not limited to, spawning, nesting, rearing and habitat areas, commercial and recreational shellfish areas, kelp and eel grass beds, and migratory routes. Where avoidance of adverse impacts is not practicable, project mitigation measures relating the type, quantity and extent of mitigation to the protection of species and habitat functions may be approved by the Director in consultation with state resource management agencies and federally recognized tribes.

I. All shoreline developments and uses shall be located, designed, constructed and managed to minimize interference with or adverse impacts to beneficial natural shoreline processes such as water circulation, littoral drift, sand movement, erosion and accretion.

J. All shoreline developments and uses shall be located, designed, constructed and managed in a manner that minimizes adverse impacts to surrounding land and water uses and is compatible with the affected area.

K. Land clearing, grading, filling and alteration of natural drainage features and landforms shall be limited to the minimum necessary for development. Surfaces cleared of vegetation and not to be developed shall be replanted. Surface drainage systems or substantial earth modifications shall be professionally designed to prevent maintenance problems or adverse impacts on shoreline features.

L. All shoreline development shall be located, constructed and operated so as not to be a hazard to public health and safety.

M. All development activities shall be located and designed to minimize or prevent the need for shoreline defense and stabilization measures and flood protection works such as bulkheads, other bank stabilization, landfills, levees, dikes, groins, jetties or substantial site regrades.

N. All debris, overburden and other waste materials from construction shall be disposed of in such a way as to prevent their entry by erosion from drainage, high water or other means into any water body.

O. Navigation channels shall be kept free of hazardous or obstructing development or uses.

P. No pier shall extend beyond the outer harbor or pierhead line except in Lake Union where piers shall not extend beyond the Construction Limit Line as shown in the Official Land Use Map, Chapter 23.32, or except where authorized by this chapter and by the State Department of Natural Resources and the U.S. Army Corps of Engineers.

Long-term or use related impacts are also anticipated from the proposal and include: Chinook salmon, a species listed as threatened under the Endangered Species Act (ESA) in March 1999, are known to inhabit East Waterway the proposed project area.

This project is proposed to occur in the nearshore environment and in deeper waters of the East Duwamish Waterway in the southern portion of Elliott Bay is habitat of chinook salmon and other aquatic species. The project site serves as a migration corridor for juvenile chinook salmon from the Duwamish River and other water bodies in Water Resource Inventory Area 8. Additionally, predators of juvenile chinook are known to inhabit areas under pier structures and may use these areas as cover while preying on juvenile chinook. Small mouth bass, an introduced predator of juvenile chinook, also use the base of pilings under pier structures as nesting sites.

Clearly identified impacts include an increase of overwater coverage and continued overwater coverage in habitat of a threatened species. Overwater coverage in the form of a pier structure reduces the amount and quality of natural habitat of juvenile chinook salmon and other aquatic species and provides habitat for introduced predator species of juvenile chinook.

Additional impacts include disturbance of the nearshore habitat, disruption by deepening habitat of a threatened species and removal of benthic organisms. Measures proposed by the project proponent to mitigate impacts to ESA listed species and other aquatic wildlife include the removal of 151 fender piles (95 creosote-treated timber piles) and the reduction of approximately 3,095 square feet of over-water coverage. Additionally, concrete piles, which are less toxic than treated wood piling will be used. Each of these measures is believed to improve habitat conditions for native fish species utilizing the site.

The Stormwater, Grading and Drainage Control Code (SMC 22.800) places considerable emphasis on water quality. In conjunction with this effort DPD developed a Director's Rule, 2000-16, to apply best management practices (BMPs) to prevent erosion and sedimentation from leaving construction sites or where construction will impact receiving waters. A portion of the proposed work is proposed on land and this portion of the work is subject to SMC 22.800. As a condition of the project the completion of the attachment to the Director's Rule and adherence to the measures outlined in the attachment shall constitute compliance with BMP measures for the land portion of the work. SMC 22.800 does not address overwater and in-water construction impacts. The proposed in- and over-water work includes removal and installation of pilings, installation of the overwater structures (fender system and sheet pile wall, etc.). With this construction there is the potential for negative impacts to occur to the East Duwamish Waterway during construction. To meet the general development standards SMC 23.60.152 N the applicant must provide a plan showing the best management practices that will be used to ensure that no debris or other deleterious material will enter the water during construction.

As proposed and as conditioned below, the project complies with the above shoreline development standards.

**SMC 23.60.750 – Development standards for the UI Environment**

The proposal conforms to all of the development standards for the UI environment. The maximum height in UI zones is thirty-five (35) feet, however, SMC 23.60.872B1 states that cranes, mobile conveyors, light standards and similar equipment necessary for the function of water-dependent uses or the servicing of vessels may extend above the maximum height.

**Conclusion**

SMC Section 23.60.064 E provides authority for conditioning of shoreline substantial development permits as necessary to carry out the spirit and purpose of and assure compliance with the Seattle Shoreline Code, Chapter 23.60, and with RCW 90.58.020 (State policy and legislative findings).

WAC 173-27 establishes basic rules for the permit system to be adopted by local governments, pursuant to the language of RCW 90.58. It provides the framework for permits to be administered by local governments, including time requirements of permits, revisions to permits, notice of application, formats for permits, and provisions for review by the state's Department of Ecology (DOE). As the Seattle Shoreline Master Program has been approved by DOE, consistency with the criteria and procedures of SMC Chapter 23.60 is also consistency with WAC 173-27 and RCW 90.58.

Thus, as conditioned below, the proposal is consistent with the criteria for a shoreline substantial development permit and may be approved.

## DECISION - SHORELINE SUBSTANTIAL DEVELOPMENT

The Shoreline Substantial Development permit is **CONDITIONALLY GRANTED** subject to the conditions listed at the end of this report.

## ANALYSIS - SEPA (for conditioning only)

This analysis relies on the Draft EIS, the Final EIS and technical appendices prepared by the Port of Seattle, which documents the probable adverse impacts likely to be created by the proposal, some of which may be significant. This decision also makes reference to and incorporates the project plans submitted with the project.

The Seattle SEPA ordinance provides substantive authority to require mitigation of adverse impacts resulting from a project (SMC 25.05.655 and 25.05.660). Mitigation, when required, must be related to specific adverse environmental impacts identified in an environmental document and may be imposed only to the extent that an impact is attributable to the proposal. Additionally, mitigation may be required only when based on policies, plans, and regulations as enunciated in SMC 25.05.665 to SMC 25.05.675, inclusive, (SEPA Overview Policy, SEPA Cumulative Impacts Policy, and SEPA Specific Environmental Policies). In some instances, local, state, or federal requirements will provide sufficient mitigation of an impact and additional mitigation imposed through SEPA may be limited or unnecessary.

The SEPA Overview Policy (SMC 25.05.665) clarifies the relationship between codes, policies, and environmental review. Specific policies for each element of the environment, certain neighborhood plans, and other policies explicitly referenced may serve as the basis for exercising substantive SEPA authority. The Overview Policy states in part: "*where City regulations have been adopted to address an environmental impact, it shall be presumed that such regulations are adequate to achieve sufficient mitigation,*" subject to some limitations. Under specific circumstances (SMC 25.05.665 D 1-7) mitigation can be required.

A public scoping meeting on the environmental impacts and other issues to be addressed in this DEIS was held on May 8, 2006, at the Bell Street Cruise Terminal, Pier 66, 2225 Alaskan Way, Seattle. The SEPA scoping comment period began on April 24, 2006, and ended May 19, 2006. Seven members of the public attended the scoping meeting. No written or oral comments were received at the scoping meeting. Nine comment letters were received by mail or e-mail during the scoping period.

The Port of Seattle, as lead agency, has determined that this proposal is likely to have significant adverse impacts on the environment and prepared this environmental impact statement (EIS) as required by the State Environmental Policy Act (RCW 43.21C). The following areas are analyzed in this EIS: Earth, Air Quality, Water Resources, Plants and Animals, Environmental Health, Noise, Land Use, Relationship to Plans and Policies, Aesthetics/Light and Glare, Parks and Recreation, Historic and Cultural Resources, Transportation, Public Services and Utilities.

This EIS addresses the probable significant impacts of development alternatives and the No-Action alternative. For purposes of environmental review, two development alternatives and one No-Action alternative were analyzed. The first alternative analyzed was the Preferred Alternative, Terminal 30 Container Terminal Reactivation and Cruise Relocation to Pier 91.

The second alternative analyzed was the Terminal 30 Redevelopment and Cruise Relocation to T-10. The Port made a decision to eliminate this alternative based on Washington Administrative Code and State Environmental Policy Act guidelines. The alternative would have resulted in greater environmental impacts than the Preferred Alternative and did not meet the objectives of the Port and its tenants (See Chapter 2, Section 2.3 and Appendix E for more detailed information).

The T-30, T-91, and T-10 sites all required environmental review. Because they are interdependent (T-91 and/or T-10 work would not be required if T-30 action were not taking place), the work at the sites must be analyzed in one document. Therefore, this DEIS examined each site for environmental impacts. The DEIS is organized to analyze each site separately.

**Description of Alternatives**

Preferred Alternative

The Preferred Alternative involves two major elements and two separate project sites and is designed to meet the proponent's goals and objectives for the Port of Seattle, the container terminal operator, and the cruise lines. The two major elements and project sites in the Preferred Alternative are the Terminal 30 Container Terminal Reactivation and the Cruise Terminal Relocation to Pier 91. Each of these two major elements of the Preferred Alternative is described in more detail below.

The first element of the Preferred Alternative is the reactivation of container terminal use at T-30 and the consolidation of Terminals 25 (T-25) and T-30 into one container facility. T-25 and T-30 are located west of East Marginal Way South in Seattle, across the East Waterway from Harbor Island. The facility includes an upland area and a container cargo pier over water. The upland area has flat surfaces consisting of compacted fill covered with asphalt paving. Concrete piles support the concrete apron (container cargo pier) that runs along the western edge of the terminals. A container terminal operator is currently using T-25 for their operation, and T-30 is being used as a cruise terminal facility during the cruise season and for commercial vessels the remainder of the year. The cruise terminal is proposed for relocation, and the current container terminal operator at T-25 is being moved to an alternate location. T-25 and T-30 would be converted to a single expanded container terminal as part of this project and would be operated by a container terminal operator.

The second element of the Preferred Alternative is the relocation of cruise terminal operations from T-30 to T-91. Terminal 91 is the Port's largest and most diversified marine terminal, covering 215 acres (including aquatic area), with approximately 9,200 lineal feet of deep-water moorage. T-91 currently supports marine uses such as: cargo handling facilities for high-value, high-employment commodities (e.g., fish products); factory trawler homeport and support facility; major cold-storage warehouses; a distribution and seafood processing plant; and short and long-term moorage for tugs, barges and other large vessels. Port of call or repositioning cruise ships are occasionally moored at P-90 and P-91 during the cruise season. While cruise ships have moored at P-91 in the past and would continue to do so, there has not been a homeport passenger terminal located at the pier.

The Preferred Alternative would relocate cruise operations from T-30 to a new cruise terminal to be constructed on the south end of P-91. Two berths of 1,200-foot length (one on each side of the pier) would be provided. A new cruise terminal building of approximately 142,900 square feet is

proposed. The project proposes to complete construction of the cruise terminal improvements and open the new facility in April 2008.

No-Action Alternative

If the Port does not redevelop the sites as proposed, the sites would remain as they are now or may be redeveloped for a different market. In the No-Action Alternative, future uses are unknown. The market and existing zoning would dictate how the sites are developed.

Alternatives Considered But Not Carried Forward

In addition to the Preferred Alternative and the No-Action Alternative, the Port of Seattle considered additional scenarios and alternatives for achieving the goals and objectives. The SEPA Rules state "Reasonable alternatives shall include actions that could feasibly attain or approximate a proposal's objectives, but at a lower environmental cost or decreased level of environmental degradation." [WAC 197-11-440 (5)(b)]. Therefore, the Port looked at each of their properties and other potential scenarios to determine which might be a good alternative to analyze (See Chapter 2, Section 2.7.2 for more detailed information).

The DEIS examined each site for environmental impacts. The DEIS is organized to analyze each site under the preferred alternative separately, however, this analysis is limited to the impacts and mitigation of the proposal for Terminal 91.

**Short-term (Construction-Related) Impacts**

The following short-term construction-related impacts are expected to result from the proposed development: decreased air quality due to grading and construction activities, and hydrocarbon emissions from construction vehicles and equipment; increased dust caused by drying mud tracked onto streets during construction activities; potential soil erosion; potential disturbance of contaminated subsurface soils during grading, utility excavations and general site work; potential damage to nearby structures during pile driving; potential damage to historic or archaeological resources; potential damage to aquatic habitat and water quality from dredging; occasional traffic interruptions; increased traffic and demand for parking from construction equipment and personnel; increased noise; temporary utility disruptions; and consumption of renewable and non-renewable resources.

Several adopted City codes and/or ordinances provide mitigation for the identified impacts. Specifically these are: the Stormwater, Grading and Drainage Control Code (controls grading, site excavation, temporary shoring, and soil erosion); Environmentally Critical Areas Ordinance (controls development in liquefaction prone soils); the Street Use Ordinance (requires watering/sweeping streets to suppress dust, removal of debris, and minimizing obstructions of the pedestrian right-of-way); the Building Code (construction measures in general); and the Noise Control Ordinance (controls construction-related noise). Compliance with these and other local, state, and federal regulations will reduce or eliminate most short-term impacts to the environment.

In most cases these regulations provide adequate mitigation. However, the size, location, and other aspects of this project require that some additional measures be employed to adequately mitigate impacts.

**Long-term Impacts**

Several long-term or use-related impacts are anticipated as a result of approval of this proposal including: increased traffic in the area; increased vehicular emissions to the air; increased noise levels during cruise ship arrival and departures; increased lighting impacts; long-term degradation of the aquatic habitat; increased demand for public services and utilities; and potential indirect impacts on surrounding land use.

This analysis will examine each affected element in turn, the short-term (or construction-related) impacts, followed by the long-term impacts, mitigation measures and significant unavoidable adverse impacts.

## Earth

A full discussion of the affected area and the proposal impacts can be found in Section 3.1 of the DEIS.

Short-term, construction-related impacts

Disturbance of soil under the existing pavement would be required to install utility and telecommunication lines. Depending on the environmental condition of the soil, clean select fill for backfill may need to be hauled in from an outside source. In addition to the utility work, minor grading would be required for removal of the existing cruise terminal building foundations as well as for replacing light pole foundations. If contaminated soil is encountered, it would be removed and replaced. It is estimated that approximately 5,000 cubic yards of grading would be required for project work. Approximately 3,000 cubic yards of excess excavated material may be considered unsuitable for reuse and would need to be hauled to an appropriate disposal site. Excavations for structural foundations and utilities are included in this quantity.

It is possible that erosion potential would increase slightly when the asphalt surface is removed and trenches are excavated for replacement of utility and telecommunications systems and other work. However, erosion impacts are expected to be minimal due to the flatness of the site and shallow excavations proposed.

A Temporary Erosion Sedimentation Control Plan (TESCP) and a Stormwater Pollution Prevention plan (SWPPP) would be developed for the project before site work begins. These plans would be designed to reduce the potential for erosion and sediment transport sediment, to filter runoff from the construction area, and to reestablish vegetation or pavement following construction. Measures expected to be included in the plan are:

- All exposed and unworked soil shall be stabilized by suitable and timely application of BMPs.
- Cut and fill slopes shall be designed and constructed in a manner that will minimize erosion.
- Wherever construction vehicle access routes intersect paved roads, provisions will be made to minimize the transport of sediment (mud) onto the paved road.
- Limit runoff and the discharge of pollutants from exposed areas of the site to the degree attainable. Practices may include; silt fences, earth dikes, drainage swales, sediment traps, and check dams.

- Prior to leaving the site, stormwater runoff shall pass through a sediment pond or sediment trap or other appropriate BMPs.

- BMPs intended to trap sediment on-site shall be constructed before site work begins and shall be functional before land disturbing activities take place.

- Areas disturbed during construction will be repaved, as appropriate, following project completion.

*Environmentally Critical Areas* – The City of Seattle Environmentally Critical Areas identify T-30 as an area of liquefaction-prone soils. Liquefaction occurs when loose, saturated and relatively cohesionless soil deposits temporarily lose strength (i.e., take on the physical properties of a slurry) as a result of earthquake shaking. Primary factors controlling the occurrence of liquefaction include intensity and duration of strong ground motion, characteristics of subsurface soil, in-situ stress conditions, and depth to groundwater. Liquefaction did occur at T-30 in the Nisqually earthquake as evidenced by water/soil slurry being forced to the surface through the asphalt, and subsidence of the asphalt in places. The applicants will provide a geotechnical study at building permit stage at which time liquefaction-prone soils will be addressed. Structures on this site would be constructed consistent with building code requirements for seismic protection, which provides adequate mitigation for potential seismic hazards over the long term. Where construction of new structures would prevent access to utilities for maintenance, the utilities shall be relocated or retrofitted to provide additional protection from earthquake-induced damage. In addition, areas within 100 feet of the ordinary high water mark are also environmentally critical areas.

## Air Quality

Section 3.2 of the DEIS evaluates impacts on air quality during project construction and operation. Further detail is provided in Appendix A, the Air Quality Technical Report.

Air quality is generally assessed in terms of whether concentrations of air pollutants are higher or lower than ambient air quality standards set to protect human health and welfare. Ambient air quality standards are set for what are referred to as "criteria" pollutants (e.g., ozone, carbon monoxide - CO, particulate matter, and sulfur dioxide - SO2). Three agencies have jurisdiction over the ambient air quality in the project area: the U.S. Environmental Protection Agency (EPA), the Washington State Department of Ecology (Ecology), and the Puget Sound Clean Air Agency (PSCAA). These agencies establish regulations that govern both the concentrations of pollutants in the outdoor air and rates of contaminant emissions from air pollution sources. Although their regulations are similar in stringency, each agency has established its own standards. Unless the state or local jurisdiction has adopted more stringent standards, the EPA standards apply.

Ecology and PSCAA maintain a network of air quality monitoring stations throughout the Puget Sound area. In general, these stations are located where there may be air quality problems, and so are usually in or near urban areas or close to specific large air pollution sources. Other stations located in more remote areas provide indications of regional or background air pollution levels. Based on monitoring information for criteria air pollutants collected over a period of years, Ecology and EPA designate regions as being "attainment" or "nonattainment" areas for criteria pollutants. Attainment status is therefore a measure of whether air quality in an area complies with the federal health-based ambient air quality standards for criteria pollutants. Once a

nonattainment area achieves compliance with the National Ambient Air Quality Standards (NAAQSs), the area is considered an air quality "maintenance" area. The purpose of this air quality assessment is to determine whether the preferred alternative complies with the NAAQSs and thus whether the preferred alternative presents any probable significant adverse environmental impacts.

Short-term, construction-related impacts

Existing federal and state regulations and measures that the applicant has indicated would be incorporated during construction of the cruise ship terminal provide adequate mitigation. It would be reasonable to require the applicant to provide copies of construction specifications to DPD showing that the measures listed in the mitigation program included in the application will be employed during construction.

Long-term Impacts

The estimates of emissions from T25/30 activities were developed using detailed scenarios of both peak day and annual levels of operations based on discussions with the Port of Seattle and the current T-25 tenant and potential operator of the reactivated container shipping terminal. Emissions projections were based on expected levels of activities in 2010 with full operation of the facility, and the estimates considered the following sources:

- Vessels hotelling at T-30
- Rubber-tired gantries used to move loaded and empty containers from yard tractors to stacks and from stacks to either yard tractors or haul trucks
- Top picks used to move loaded and empty containers from yard tractors to stacks and from stacks to either yard tractors or road-haul trucks
- Side picks used to move empty containers from haul trucks to stacks and from stacks to yard tractors or haul trucks
- Yard tractors used to move containers from place to place within the freight yard, and
- Road-ready haul trucks used to move containers on and off the facility site.

The projections for activities in 2010 were based on an assumed annual container throughput of 300,000 twenty-foot equivalent units (TEUs). Additional details regarding the activity scenarios are presented in the Air Quality technical appendix.

The proposed project would create an expanded T25/30 terminal to add capacity for container shipping in the Seattle harbor. In addition to the general description of the project elements presented earlier in this document, the project as currently proposed includes specific features intended to reduce air pollution emissions related to facility operations of container-handling equipment (i.e., rubber-tired gantries (RTG's), top picks, side picks, and yard tractors). These emission-reduction efforts include the following ongoing and future measures:

- The current (and expected future) container terminal tenant is in the process of switching to using a combination of ultra low-sulfur diesel fuel comprised of 20% biodiesel in all its container-handling equipment. This conversion will be completed before operation of the combined T-25/T-28/T-30 facility would begin operations. This combination of fuels reduces emissions of fine particulate matter and air toxics.
- The current container terminal tenant is currently studying the potential effectiveness of using ultra low-sulfur fuel combined with 40% biodiesel and may switch to this cleaner fuel once its long-term utility has been determined. Should this prove to be an option based on

demonstrated effective use in heavy equipment, more extensive use of this fuel would reduce emissions further.

- The current container terminal tenant has begun the process of retrofitting its existing container-handling equipment with diesel oxidation catalysts that reduce emissions of PM2.5. This process will be completed prior to 2010, the study year examined in the air quality review. Existing equipment that remains in operation by that time would have been fitted with particulate matter control devices.
- The current container terminal tenant intends to use about 75% new container-handling equipment at the T-25/T-30 facility. This equipment would be factory fitted with diesel oxidation catalysts.

With these emission control features in place, even expanded use of container-handling equipment would represent a substantial decrease in emissions compared with the previous operation of T-30 as a container terminal (i.e., before it was deactivated) and would result in substantial reductions in air pollution emissions compared with uncontrolled equipment. For example, a very rough comparison of annual emissions associated with peak operation of the previous terminal operation with expected conditions in 2010 indicates operations of the new facility would represent a 78% reduction in emissions of PM2.5, a 64% reduction in emissions of carbon dioxide, and an 84% reduction in emissions of formaldehyde. Similarly, emissions of haul trucks using the facility would be about 56% lower in 2010 than during peak-year operations of the previous container terminal. Refer to the Air Quality Technical Report in Appendix A for additional information in this regard.

## Water

Section 3.3A of the DEIS evaluates groundwater, stormwater and marine water impacts of the proposed project. The specific impacts due to dredging are evaluated in Section 3.3B and will be analyzed in the following section.

Short-term, construction-related impacts

*Construction Stormwater*

A Construction NPDES General permit for stormwater discharges associated with construction activities would be obtained from Ecology, which would contain water quality monitoring and erosion control requirements deemed necessary by Ecology. Monitoring required by the Construction NPDES General Permit would be conducted to assess the quality of dewatering discharges from excavation related to utility and infrastructure upgrades and treatment would be performed, if needed, to comply with applicable state and local requirements. A Stormwater Pollution Prevention Plan (SWPPP) would be prepared and implemented as required by the NPDES permit and would be updated as warranted, which would contain specific best management practices for each construction season.

The contractor would be required to comply with applicable federal, state and local environmental statutes, ordinances and regulations, as specified in Article 23 of the Port of Seattle Project Manual and Bid Specifications. Precautions may include, but not be limited to: requirements to carefully manage and contain petroleum products such as fuels, grease, hydraulic fluids and lubricants; ready access to spill cleanup materials; and use of spill-prevention Best Management Practices (BMPs).

The proposal includes implementing BMPs for erosion control during excavation, fill and grading activities, in compliance with the City of Seattle Stormwater, Grading and Drainage Control Ordinance, and Director's Rule 16-2000, which includes conformance with the Construction Stormwater Control Technical Requirements Manual which became effective July 4, 2000.

- Site-specific analyses would determine if any structures could be influenced by excavation dewatering. Mitigation measures to control the potential impact of excavation dewatering could include minimizing the extent and duration of dewatering, monitoring for settlement, and installing groundwater cut-off walls.

- Any contaminated soils encountered during construction will be removed and disposed in an appropriate upland facility. During excavation, contaminated soils will be handled separately from uncontaminated soils and additional BMPs will be employed to prevent contaminants from reaching surface waters. Dewatering water from contaminated soils will be collected and transported to an appropriate upland facility for treatment or disposal.

Long-term Impacts

In accordance with the Stormwater Code Interagency Agreement (an agreement between the City of Seattle and the Port of Seattle), the stormwater design for the facility will comply with all the substantive requirements of the City Code.

While there is the potential for impacts to water quality related to container vessels to discharges while at berth, it is unlikely that significant harm will occur because these vessels are subject to numerous federal and state regulations that are meant to prevent adverse impacts to water quality. These regulations cover the discharge of black water (sewage), ballast water and oil-contaminated bilge water. Bunkering (refueling) operations are strictly regulated under the Washington Administrative Code by the Washington Department of Ecology, which adopted a more stringent version of the rules on September 25, 2006.

Design elements for the project would include the following:

- The project would yield a decrease in the number of creosote treated pile in the aquatic environment.

- The upgraded stormwater system would improve both the collection and quality of discharged stormwater to the marine environment.

- Drains on the upland areas will have risers to prevent pavement and other harmful material from entering the water.

- Concrete poured for a parking area in the upland area will have a raised perimeter to isolate stormwater runoff.

## Water – Dredging

The Port would dredge the berth area in front of T-30 to accommodate deep-draft container ships. The dimensions of the proposed dredging are 1,500 feet along the face of the terminal starting at the north end of T-30 extending to the south, with a maximum width of 180 feet, and

outboard length of 1,800 feet to provide sufficient depth for navigation into and out of the berth. The area would be dredged from its existing depth of approximately -44 feet Mean Lower Low Water (MLLW) to a depth of –50 feet MLLW, plus 1-foot allowable overdredge. In total, approximately 59,000 cubic yards of material would be removed from the project site.

The sediment material has been sampled and tested per the Washington Dredged Material Management Program (DMMP) to assess the materials' suitability for open-water disposal. Preliminary sample results indicate that the majority of the dredged material will be suitable for open-water disposal. There is a small potential that a portion of the total volume (less than 20%) may be determined to be unsuitable for open water disposal.

Dredging will be performed using a mechanical clamshell dredge. If the sediment is suitable for open-water disposal, the dredged material will be placed into a split hull (bottom dump) barge for transport by tugboat to the Elliott Bay open-water disposal site for disposal. Barge disposal would occur within defined boundaries of the Elliott Bay open-water disposal site, and the barge location will be confirmed by the U.S. Coast Guard's Vessel Traffic System (VTS) prior to discharge.

If the sediment is unsuitable for open-water disposal, the dredged material will be placed into a flat-deck haul barge for transport by tugboat to an upland offloading site. The location of the offloading site is not known at this time, but likely will be on Port property within the East Waterway. The dredged material will be offloaded from the barge by mechanical methods (e.g., crane or backhoe), and placed into stockpiles for dewatering or directly into truck or rail cars for transport to an approved upland landfill facility. Free water associated with the offloading, stockpiling, and dewatering activities will be captured and discharged back into receiving waters (if the effluent meets State water quality criteria) or discharged into a Publicly Owned Treatment Works (POTW).

Dredging at T-30 is anticipated to require approximately three months of in-water work, and would be started in fall 2007 and completed by winter 2008, consistent with in-water work periods determined by state and federal regulatory agencies.

Construction of the Preferred Alternative at T-30 would result in both short-term negative effects and to marine water quality. Short-term effects occur at the dredging site, at the open-water disposal site (for suitable sediment), and potentially at the upland offloading/stockpile area (for unsuitable sediment) if effluent is allowed to be discharged back into the receiving waters.

Dredging activities at the project area may cause temporary increases in turbidity and potential decreases in dissolved oxygen (DO) levels. These impacts would be temporary and only occur during the actual dredging operations, and would be limited to the immediate vicinity of the dredge. The Port will use best management practices during dredging to minimize turbidity; however, dredging projects often require a larger mixing zone than that allowed by the state water quality standards (a mixing zone is that area where dilution is allowed to occur under certain restricted conditions). The Port will request that the Washington State Department of Ecology issue a Short-Term Water Quality Modification as part of its 401 Water Quality Certification to allow exceedance of State water quality criteria within a negotiated mixing zone. This is not anticipated to have an adverse impact to aquatic resources or other beneficial uses because the dredging is a temporary activity and will only occur during the timeframe allowed by state and federal fisheries agencies.

During dredging at T-30, there would be increased potential for accidental oil, gas, or other chemical spills due to the active construction equipment on site. However, the Contractor would be required to have methods and measures to prevent or control any potential spills in order to minimize adverse effects from such situations.

Long-term effects of the Preferred Alternative would include the removal of potentially contaminated sediment from the aquatic environment at T-30. This would provide a permanent indirect benefit because contaminated sediments would no longer potentially affect water quality. If no contaminated sediment is present at T-30, long-term effects would remain unchanged from existing conditions.

See also SMC 23.06.032 Special Use Approval for Dredging above.

## Plants and Animals

The uplands at the T-30 project site are paved with asphalt, and vegetation is essentially absent. For this reason, upland habitat is not discussed further in the description of T-30.

The aquatic portion of the project area provides intertidal, shallow subtidal, subtidal, and water column habitat. For the purposes of this EIS, intertidal habitat is defined as aquatic habitat located from Mean Higher High Water (MHHW) to –4 ft Mean Lower Low Water (MLLW). Shallow subtidal habitat is located between –4 feet MLLW to –10 feet MLLW. The intertidal and shallow subtidal zones are considered the most important in the early life history of salmonids, particularly Chinook. Subtidal habitat includes all bottom areas deeper than –10 feet MLLW. The subtidal surface is not habitat for salmonids, but the water column overlying the subtidal surface is used by juvenile, sub-adult and adult fish.

*Salmonid Use* – Salmonid species that utilize Elliott Bay include Chinook (*Oncorhynchus tshawytscha*), chum (*O. keta*), and coho salmon (*O. kisutch*), and steelhead trout (*O. mykiss*). Small numbers of sea run cutthroat trout (*O. clarki*) and Dolly Varden trout (*Salvelinus malma*) and bull trout (*S. confluentus*) migrate through the Duwamish estuary.

*Other Aquatic Species* – Spawning of forage fish that may be used as prey by salmonids does not occur in the project area. Based on captures of forage fish during beach seining in nearby areas (e.g., Whitmus and Salo 1983, Taylor et al. 1999), it is likely that forage fish such as shiner perch, Pacific herring, surf smelt, and sculpin are present in the project area at various times of the year.

*Threatened and Endangered Species* – Species listed under the Endangered Species Act (ESA) that may be present in the vicinity of the project site include Puget Sound Chinook salmon (*O. tshawytscha* – threatened), Coastal-Puget Sound bull trout (*S. confluentus* – threatened), Steller sea lion (*Eumetopias jubatus* – threatened), humpback whale (*Megaptera novaeangliae* – endangered), leatherback sea turtle (*Dermochelys coriacea* – endangered), bald eagle (*Haliaeetus leucocephalus* – threatened), and killer whale (*Orcinus orca* – endangered). This list of species is based on information received from USFWS and NOAA Fisheries for numerous other recent projects in the Duwamish Waterway, East and West Waterways, and Elliott Bay.

On March 29, 2006, National Oceanic Atmospheric Administration (NOAA) Fisheries proposed listing Puget Sound steelhead as a threatened species (NOAA 2006). Two steelhead runs in the Green River system are included in the proposed listing: Green River winter steelhead, which are

a naturally-spawning population, and Green River summer steelhead, which are a composite stock of natural and hatchery-spawned fish. Juvenile Puget Sound steelhead could be present at the site during spring and early summer.

On November 18, 2005, NOAA-Fisheries announced its decision to list the North Pacific Southern Resident killer whale (*O. orca*) population as endangered under the ESA (NOAA 2005a). The listing is specific to the three resident whale pods (J, K, and L pod) with spring through fall ranges in Puget Sound and the Straits of Georgia and Juan de Fuca. Based on the available information, the southern resident killer whale Distinct Population Segment (DPS) is known to occur in Elliott Bay. Although killer whales may be present in Elliott Bay, it is unlikely that they will be present in the project areas.

Bald eagles may occasionally use habitats in the project area; however, there are no known nest sites in the project area. According to a Washington Department of Fish and Wildlife (WDFW) habitat map for bald eagles produced on March 25, 2004 the nearest known breeding occurrences are 1.25 mile and 1.75 mile from T-30. Bald eagles have been frequently observed perching on one of the barges anchored in Elliott Bay, and these birds in the industrial areas of Seattle appear to be habituated to human activity. Foraging could occur in the project area during any season when eagles are present at the nest site.

Short-term, construction-related impacts

*Water Quality* – Project construction is not expected to adversely affect juvenile salmonids, as dredging would be conducted during the established in-water work season or other period approved by WDFW, National Marine Fisheries Service (NMFS), and USFWS. This will ensure that in-water work does not occur during the period when juvenile salmonids (smolts) are abundant in the project area. Sub-adult or adult salmonids could be present during dredging.

The material to be dredged is being tested according to protocols developed by the Dredged Material Management Office (DMMO). It is anticipated that most or all of the material from the T-30 dredge prism will be suitable for open-water disposal. This conclusion is based on the recent dredging that has been conducted at the site.

Berth dredging would cause a short-term increase in turbidity. Several studies have investigated the extent and magnitude of the sediment plumes caused by dredging. Typical samples collected adjacent to dredge sites (within approximately 150 feet) contain suspended sediment concentrations between 50 and 150 mg/l (USACE 1976, Havis 1988, Salo et al. 1979, Palermo et al. 1990). Based on an evaluation of seven clamshell dredge operations, LaSalle (1988) determined that suspended sediment levels of 700 mg/l and 1,100 mg/l at the surface and bottom, respectively, would represent the upper limit concentration expected adjacent to the dredge source (within approximately 300 feet).

Mortality of salmonids from extremely high levels of suspended sediment has been demonstrated, but at concentrations far exceeding those expected as a result from the project. Laboratory studies have consistently found that the 96-hour median lethal concentration ($LC_{50}$) for juvenile salmonids occurs at levels above 6,000 mg/L (Stober et al. 1981, Salo et al. 1980, LeGore and DesVoigne 1973).

Because of the limited number of juvenile salmonids that have the potential to be exposed to turbidity during dredging, no water quality impacts to juvenile Chinook or bull trout are

expected. Based on the quality of the sediments to be dredged (i.e., suitable for open water disposal), the expected levels of turbidity, and the avoidance behavior of sub-adult and adult salmonids, water quality during construction is not expected to effect salmonids.

*Habitat Impacts* – Dredging would disturb approximately 9 acres of subtidal habitat at T-30. Dredging would cause a short-term change in the characteristics of the subtidal benthic community; however, based on studies of substrate disturbance (McCauley et al. 1977, Swartz et al. 1980, Albright and Borithilette 1981, Romberg et al. 1995, Wilson and Romberg 1996, Jones and Stokes Associates 1998), this community is expected to recover within one to three years after dredging.

Salmonids of all ages use the water column that overlies the subtidal habitat and have strong primary ties to pelagic food webs, with indistinct secondary linkages to benthic food webs. For example, juvenile, sub-adult, and adult Chinook feed on pelagic forage fish and crustaceans (Healey 1991). Bull trout also focus on pelagic fish as a prey base (Kraemer 1994). Therefore, there are no primary food web linkages between subtidal habitat and salmonids.

Dredging would also disturb subtidal habitat, decreasing the elevation of the benthic surface by a maximum of approximately 10 feet (including 1 foot allowable overdepth); the shallowest portion to be dredged has an existing, approximate elevation of –44 MLLW, and the dredging would result in an area with overall depth of about –51 MLLW (plus 1 foot overdredge). This increase in depth would not change the functions provided by this habitat.

*Impacts to Bald Eagles* – Bald eagles that may be present in the project area would be expected to avoid locations where the dredge is occurring, but there is little risk of direct mortality. The project is expected to have no effect on bald eagle nesting, as the project area is approximately 1.25 miles from the nearest known nest site.

Long-term Impacts

*Water Quality* – Activities on ship or shore while a vessel is at the terminal would be similar for either a container ship or the cruise ships that currently call at T-30. Activities include loading and unloading cargo or passengers, provisioning the ship, and fueling. The potential pathways of impact to aquatic species during operations at T-30 are related to risks of spills that could affect water quality.

*Lighting* – The project would increase lighting at T-30**.** High-intensity lighting that is directed at the water surface has the potential to alter the migratory behavior of juvenile salmonids (Prinslow et al. 1979) or their prey organisms, possibly affecting growth or survival during a critical life history stage. However, such effects have only been detected at light intensities that exceed those typical for container yard operations (Prinslow et al. 1979).

*Vessel Traffic* – The cumulative increase of vessels in the harbor as a result of this project is expected to be one additional ship per week. This increases the risk of vessel interactions or collisions with marine mammals including deep sea whales, but the risk to killer whales is believed to be small (Baird 2001, 2002).

NOAA Fisheries (NOAA 2005a) has listed sound and disturbance from vessel traffic as a concern for the continued survival of the southern resident killer whale DPS. However, the greatest concern is focused on vessels that are engaged in whale watching and deliberately

follow the pods of killer whales. Increased ship calls at T-30 would contribute to general sound levels in Puget Sound. Further, the ships would travel through areas used by the whales. However, killer whales are most sensitive to high-frequency sounds (Szymanski 1999), while large vessels generate primarily low-frequency sounds (Richardson 1995). Overall, the one additional container ship per week in the harbor is not expected to adversely affect killer whales. Additional review of the potential impact mechanisms on killer whales will be undertaken as part of compliance with Section 7 of the Endangered Species Act.

*Ballast Water* – The cumulative increase of vessels in the harbor as a result of this project is expected to be one additional ship per week. This would increase the total volume of ballast water potentially discharged to Elliott Bay. The effect would be a slight increase in the risk of introduction of non-indigenous species to Elliott Bay.

## Environmental Health

The State Environmental Policy Act (SEPA) requires an evaluation of "releases or potential releases to the environment affecting public health such as toxic hazardous materials" associated with the proposed action. This section summarizes the potential presence of hazardous constituents in soil and groundwater that have the potential to affect human health and the environment. Documented below are existing environmental conditions at the Terminal 30 (T-30) project area, potential environmental health impacts from the proposed action, potential mitigation measures that may be implemented to address these impacts, and significant unavoidable adverse impacts.

*Model Toxics Control Act* – MTCA establishes a process for investigating and cleaning up contaminated sites under one of four options involving different levels of Ecology oversight. These options are: 1) consent decree, 2) agreed order, 3) enforcement order, and 4) independent remedial action. Regardless of the option selected, all cleanup actions must: 1) comply with cleanup standards, 2) comply with applicable state and federal laws, 3) protect human health and the environment, 4) provide compliance monitoring, 5) use permanent solutions as much as possible, 6) provide a reasonable restoration time frame, and 7) consider public concerns. For cleanup actions associated with construction of the proposed project within the T-91 area, cleanup standards would be established consistent with the planned future use of the cleanup area and the MTCA regulations. Portions of both the T-91 project area are covered by requirements of Ecology agreed orders (1991a, 1991b).

The T-30 property extends from Slip 27 to the Pier 35 boundary and includes the areas formerly referred to as Pier 28, Pier 30/31, Pier 32, and Pier 34. The T-30 vicinity has been used for a variety of industrial activities, including cargo shipment and petroleum bulk storage. The bulk petroleum storage facility at Terminal 34 was constructed in the 1920s and expanded in the 1950s. The facility included aboveground tanks, equipment, and piping. The Port purchased the Pier 32 property from Chevron in 1985. As part of the purchase and sale agreement, Chevron demolished aboveground tanks and equipment in 1984 and 1985. The Pier 34 bulk petroleum storage facility operated from the 1920s to approximately 1995. Ownership of this facility included the Tidewater Oil Company, Getty Oil, Phillips Petroleum, and GATX. The Port purchased the GATX property in 1995.

Based on investigations and Port of Seattle records, three areas within T-30 potentially have contaminants at concentrations above cleanup levels that will need to be anticipated by the design for the proposed action.

*Slip 28 Fill* – The former Slip 28 was filled in 1978. The fill included dredged sediment from the East Waterway, some upland soil removed during development at Terminal 18, and creosoted timbers used to stabilize soft material in some areas. The dredged material used as fill in Slip 28 contained contaminants at concentrations that were not suitable for open water disposal. Although no testing results are available for Slip 28 fill, the fill material is expected to contain contaminants including petroleum hydrocarbons, carcinogenic petroleum aromatic hydrocarbons (cPAHs), polychlorinated biphenyls (PCBs), and metals. This assumption is based on available information including East Waterway sediment conditions and other testing data related to nearby contaminant sources (including the adjacent bulk petroleum facilities, the Lander Street combined sewer overflow outfall, and the proximity to industry on Harbor Island across the East Waterway from the site).

*Pier 32 Former Chevron USA Bulk Petroleum Product Terminal* – As a part of the purchase and sale agreement with the Port of Seattle, Chevron demolished aboveground tanks and equipment in 1984 and 1985, and investigated free product in the soil and groundwater. The Port completed an original agreement with Ecology in 1985 that specified hydrocarbon product recovery rates. The Port entered into an agreed order (Ecology 1991a) pursuant to MTCA that superseded the original agreement and formalized the remedial investigation and feasibility study process related to releases of hazardous substances to soil and groundwater at T-30. The Port conducted the required remedial investigations and feasibility study, and implemented remediation at the former Chevron facility that included active groundwater containment and product recovery and treatment. Cleanup activities at the former Chevron facility reduced the extent of petroleum product, but free product is still detected at four monitoring wells in the compliance monitoring system (RETEC 2006). The additional actions planned as part of the remedy include implementation of a compliance monitoring plan to assess natural attenuation of contaminants, institutional controls, abandonment of damaged or unused monitoring wells, and continued product recovery as practicable (RETEC 2006).

*Pier 34 Former GATX Bulk Petroleum Product Terminal* – The Port purchased the GATX property in 1995. The Port investigated and remediated the site as an independent action under the MTCA Voluntary Cleanup Program, which included air sparging (a process that involves injecting clean air into the soil to remove contaminants), significant soil excavation, and offsite disposal to address petroleum and metals contamination at the site (RETEC 1997). Soil excavation targeted soil with total petroleum hydrocarbon (TPH) concentrations greater than action levels of 10,000 mg/kg or 20,000 mg/kg TPH depending on the area of the site. Concentrations of remaining TPH in soil are greater than MTCA cleanup levels. The sheet pile bulkhead constructed along the shoreline adjacent to the former GATX terminal also provides environmental containment.

Although remediation occurred at both the former Pier 32 and Pier 34 petroleum facilities (RETEC 1997, 2006), residual petroleum and other contaminants remain in soil and groundwater at both locations. In addition, contaminants and creosoted timbers are expected to be present in the Slip 28 fill.

Short-term, construction-related impacts

There may be temporary impacts to human health and the environment during construction of the Preferred Alternative. Some elements of the proposed action at T-30 are demolition of structures, grading, construction of lighting pole foundations, and installation and upgrades of utilities and stormwater conveyance piping. Such intrusive activities in some areas of the site have the potential to encounter, expose, or excavate buried contamination. In most cases, existing investigation data allow the Port and its contractors to avoid areas of buried contamination or to anticipate and effectively manage contaminated material. Potential temporary impacts include the following:

- Removing pavement, demolishing structures, grading the site, and excavating or exposing contaminated soil containing volatile fuel constituents, if not managed correctly during construction, could increase leaching of contaminants by exposing contaminated soil to precipitation. These activities could also potentially contaminate stormwater and could require construction worker health and safety measures such as those required by Chapter 296-843 WAC.

- Construction of elements requiring excavations such as foundations or utilities may require dewatering (drainage) of excavations. The Preferred Alternative may affect receiving waters if construction of below-grade structures and utilities require dewatering and if the groundwater is not managed appropriately. Monitoring, and potentially treatment, of dewatering discharges may be needed to address this impact. If contaminated groundwater is pumped, it must be managed in accordance with Ecology regulations and the City of Seattle's municipal wastewater discharge requirements.

- Groundwater remediation using monitored natural attenuation is expected to continue without change under the Preferred Alternative, which also includes institutional controls with compliance monitoring. There are wells on the site that are part of the network required for cleanup site monitoring. Terminal design may require that the monitoring system be modified. Additionally, some wells may be damaged during construction, requiring abandonment and replacement in accordance with the agreed order and Ecology regulations for wells (Chapter 173-160 WAC).

- Disposal of materials will require characterization to determine the potential presence of contaminated soil and/or asphalt concrete generated as part of site clearing, grading, or general excavating in order to select an appropriate offsite disposal facility.

- Construction can also result in the release of hazardous materials to the environment if proper protective measures are not followed. Fuel spills can occur during mobile fueling of heavy equipment. Hydraulic oil leaks are not uncommon on large construction sites and a typical leak results in the release of 5 to 30 gallons of hydraulic oil to the ground, depending on the size of equipment. Spill prevention and response planning is typically conducted prior to the start of construction to prevent and, if needed, respond to such spills.

Log-term Impacts

Operation of the facilities is not expected to affect human health or the environment. No intrusive activities are expected to encounter soil or groundwater once construction has been completed. Focused remedial measures performed prior to or during construction are expected

to mitigate potential adverse impacts associated with site development within contaminated areas, including exposure of future site users to hazardous substances in soil, groundwater, and air.

## Noise

A detailed discussion of noise terminology and the impacts associated with the proposed project can be found in Section 3.6 of the DEIS.

The existing environment in the vicinity of T-30 is an active industrial area with a wide variety of industrial and traffic noise sources. The existing acoustic environment is dominated by industrial noise from existing facilities at T-30 and other nearby waterfront activities and terminals, and from traffic along the Alaskan Way Viaduct and Alaskan Way S. Noises from port operations and the adjacent roadways are essentially continuous, 24 hours a day.

Short-term, construction-related impacts

Off-site construction noise sources associated with the preferred alternative would be relatively minor, especially within the context of the existing acoustic environment. Most of the required infrastructure is already in place because T-30 was used as a container-shipping terminal in the past. Because the existing terminal is surrounded by a noisy environment, and because of the large distances between T-30 and the nearest sensitive noise receivers (i.e., homes in West Seattle and downtown Seattle), noise from large equipment such as cranes, loaders, pile driving equipment and trucks would likely be inaudible or minimally audible. Dredging of the waterway adjacent to T-30 would be required to ensure adequate underwater clearance for large shipping vessels. This activity is not likely to produce noise audible or intrusive at the nearest residential receivers. Other minor sources of construction noise from equipment such as generators, compressors, and pumps, are unlikely to be noticed at the nearest sensitive noise receivers. The Seattle noise ordinance allows fairly high sound levels from construction activities to occur during daytime hours. But in spite of such levels being legally allowed, construction noise associated with the project could nonetheless result in temporary noise impacts to nearby off-site residential and commercial receivers due to the atypical types and levels of noise that construction activities could generate.

Long-term impacts

Operations at T-30 includes a container shipping and receiving facility. The primary noise-generating activities associated with operation of such a facility would include yard tractors, electric cranes, diesel-powered rubber-tired gantries, top picks and side picks handling containers, stacking of containers, and trucks accessing the site to haul loads.

T-30 is surrounded by Port-related industrial uses, major roads, and the Burlington Northern rail yard. Operation of the proposed T-30 facilities would contribute a relatively minor amount of noise to the existing busy industrial area, and given the absence of nearby noise-sensitive receivers, reactivation of T-30 for container shipping would likely go unnoticed at most off-site receivers in the area. Operation of the container terminal would not be expected to result in any significant noise impacts, therefore noise mitigation measures are not required.

## Parks and Recreation

A discussion of the parks facilities in the project vicinity can be found in section 3.9 of the DEIS. No impacts to these facilities, either short-term or long-term are anticipated as a result of the project proposal.

Immediately north of the T-30 site is Jack Perry Memorial Viewpoint, developed by the Port to provide required public shoreline access. As part of a separately permitted project, the Port is completing the process with the City to vacate Alaskan Way street end. This street vacation triggers public access requirements. The Port may also give an additional small portion of the existing container yard adjacent to the public access site for the purpose of this process with the City. The Port prepared a SEPA Addendum, issued July 3, 2006, to a 1998 SEPA Determination of Non-Significance document to provide for the Alaska Street vacation. This street vacation process will continue whether or not the project that is the subject of this DEIS moves forward or not.

## Aesthetics/Light and Glare

The project aesthetics and light and glare are addressed in detail in Section 3.10 of the DEIS.

*Aesthetics*

The visual character of the T-30 site and the surrounding area is industrial. The Port's T-25 and T-30 have been marine terminals for decades. T-25 became a marine cargo container terminal in the early 1970s. In 1986, T-30 was developed into a marine container terminal and was an active container terminal throughout the 1990s. In 2002, cargo volumes decreased and T-30 became vacant. The vacant terminal became a two-berth cruise facility that first opened for the 2003 cruise season. The site currently operates as a cruise facility in the cruise season and accommodates cargo operations the remainder of the year.

The T-30 project area is part of an industrial area that was developed within the Duwamish River estuary to serve water-dependent activities of the Seattle region. T-25 and T-30 are situated in the center of southeast harbor marine cargo operations, with connections to East Marginal Way S, Alaskan Way S to the north, and rail yards and the Spokane Street corridor to the south. Immediately north is Jack Perry Shoreline Access Park, developed by the Port to provide required public shoreline access. Additional marine industrial and other industrial facilities and operations on privately owned sites are present west, south, and east of the T-30 site. These include: a Coast Guard facility to the north; and rail yards, manufacturing, distribution, and warehouses to the east and southeast.

The aesthetics of the project area is not expected to change significantly as a result of the proposed project. The container terminal operation will be expanded and new cranes would be installed. Cargo vessels would use the berth year-round. Cruise ships would no longer be berthing at T-30 during cruise season.

*Terminal 30 Existing Views*

Existing views over the proposed T-30 project site are generally from Beacon Hill, South Seattle, Harbor Island and the Downtown Seattle area and include views of Puget Sound, Mount Rainier, and the Olympic and Cascade Mountains. The proposed project site is a developed industrial area characterized by streets, bridge structures, and adjacent businesses. Most of the area (about 95 percent) is paved with asphalt or concrete or covered by buildings. The current view of T-30 and vicinity includes cargo marshalling yards and facilities and cruise terminal facilities.

Container ships and other large vessels (including cruise ships in cruise season) have historically partially blocked views of some of the scenic vistas and this view blockage would continue with or without the proposed project. More recently, aircraft carriers and Navy vessels have moored at the site for special events.

*Light and Glare*

The project site is located in a highly industrialized, urban area. Existing light standards located on T-30 are necessary to accommodate terminal operations.

*Construction Lighting* – New temporary sources of light would be introduced to the site during construction activities. These lighting sources would be associated with utility and building construction, trucks and other equipment, and improvements to building interiors.

*Operational Lighting* – Lighting would be improved at T-30 to increase safety in the active terminal work areas. These improvements would consist of installing new fixtures on existing poles as required. In addition, two new 100-foot tall poles would be installed within the footprint of the former cruise facility terminal building. One 86-foot pole would be installed to replace a similar pole that had been removed at some time in the past. These three poles would be located approximately in the same locations where they existed when this facility previously operated as a container terminal. Some poles may be relocated if required due to refinements in the final site configuration. No lighting modifications are anticipated for T-25.

Lighting around the new entry to the terminal may be modified by providing new light poles. These poles would be limited in height to approximately 30' and would be similar to street lighting poles and fixtures. Parking areas for personal occupancy vehicles may require similar shorter light poles.

## Historic and Cultural Resource

A detailed analysis of affected environment for T-30 is included in the *Historic and Cultural Resources Report* prepared by BOLA Architecture + Planning and Northwest Archaeological Associates (July 17, 2006, see Appendix B of the DEIS). The information is further summarized in Section 3.11 of the DEIS.

The Historic and Cultural resources analyzed here are limited to treaty fishing and archeological resources.

Treaty Fishing

Elliott Bay, the East and West Waterways, and the Duwamish Waterway are recognized as treaty fishing access areas managed by the Muckleshoot Tribe and the Suquamish Tribe. Treaty tribe fishing in these areas is consistent with past federal government treaties and subsequent federal court decisions. Treaty fishing access is a continuing activity and is a baseline condition within the project area.

Members of the Muckleshoot and Suquamish Tribes harvest chinook, coho, chum, and steelhead salmon in Elliott Bay, the East and West Waterways, and the Duwamish Waterway, during summer, fall, and winter of each year, generally from August through December, and in January and February. Treaty fishers typically use drift gillnets to harvest salmon, including drift nets in Elliott Bay, and set nets along the south Elliott Bay shoreline and in the East and West

Waterways and the Duwamish Waterway. Drift and set gill nets float at the surface, with the bottom edge of the nets extended vertically in the water column as a curtain. Drift gillnets are free floating nets, attended by a fisherman. Set nets are often attached to structures or objects along the shoreline, with the waterward end of the net held in place by an underwater anchor. Set gillnets may be left in place unattended.

By virtue of its location on the East Duwamish Waterway, T-30 is within the Tribal treaty fishing areas described above. Vessel activity to and from T-30 may, at times, move through drift and set gillnet fishing areas. The container terminal operations would not impinge on mitigation measures previously implemented by the Port to support treaty fisheries.

All Port in-water construction activities are coordinated with the Muckleshoot and Suquamish Indian Tribes, with the objective of avoiding and minimizing potential disruption of Treaty fishing activities. This includes scheduling of construction activities to avoid specific fishing periods and controlling the location and timing of construction activities. In addition, the Port works with the Muckleshoot and Suquamish Indian tribes concerning the operation of port marine cargo facilities, to ensure that vessel arrivals and departures during fishing periods are known in advance. The mutual intent is to share vessel traffic and fishing effort information, avoiding and minimizing potential net and vessel conflicts. Construction timing and vessel traffic/fishing information exchange will be continued concerning all in-water construction activities included in the present proposal and with respect to resumption cruise ship traffic at T-91.

Fishing is seasonal, with variable schedules and openings. In the case of cruise ships, the present schedule includes Friday through Sunday vessel calls. This often works well to avoid Sunday night through mid-day Friday fishing periods.

Archeological Resources

No known significant prehistoric or historical archaeological resources would be affected by this alternative. If final placement of the project elements results in unavoidable adverse impacts to a significant (as yet unidentified) resource, then mitigation would be required to retrieve the scientific and historical information that makes the site significant. Appropriate mitigation measures should be tailored to the specific circumstances of the resource and developed in consultation with the Washington State Historic Preservation Officer (SHPO/DAHP). If the resource is prehistoric, then the SHPO will require consultation with the appropriate affected tribes.

To ensure that no adverse impacts occur to an inadvertently discovered archaeologically significant resource, an Archaeological Construction Monitoring and Discovery Plan should be prepared for subgrade excavations for expected to reach lower than fill level. If construction results in inadvertent discovery of a potentially significant prehistoric or historic cultural resource, then additional appropriate mitigation measure would be required to retrieve the scientific and historical information that makes the site significant. A professional archaeologist should be available during ground-disturbing activities if subgrade excavations will be deep enough to intersect intact tide flat surfaces below the fill at T-30.

## Transportation

The affected traffic and parking environment is described in Volume II, Appendix C. The technical report is *Transportation Technical Report for Draft EIS Cruise Terminal at Terminal 91*, September 14, 2006 prepared by Heffron Transportation, Inc. for the Port of Seattle. The information is summarized in Section 3.12 of DEIS.

Short-term, construction-related impacts

Terminal reconstruction would generate truck trips, but the volume of trucks is expected to be much less than when the terminal is operating. Therefore, the roadway system would be able to accommodate the construction traffic.

One potential road closure would be needed when a new sewer connection is made between the new T-30 gatehouse and the existing sewer line that is located in the southbound lanes of East Marginal Way. This connection will be made with cut-and-cover construction, which would close the sidewalk, bike lane, and southbound lane of traffic for up to a week. During this construction, the center left turn lane could be used for southbound bicycle and motor vehicle traffic. A traffic control plan should be developed to show how pedestrian, bicycle, and motor vehicle traffic would be accommodated when the southbound lanes are closed for construction.

Long-term impacts

*Trip Generation* – The number of truck trips generated by a container terminal is based on terminal throughput. For T-30, all containers that are either unloaded from or loaded onto a ship would be transported to and from the terminal by truck. This terminal would have no on-dock intermodal yard for direct transfer to rail.

Off-site traffic generation analysis for this project was performed for year 2010 and year 2030 conditions to be consistent with other major transportation planning studies in the area. Trip generation was determined for existing, year 2010, and the year 2030 for two weekday conditions:

- *Average weekday.* This assumes that the terminal would operate five days per week, 52 weeks per year. The average weekday throughput equals the annual volume divided by 260 days per year.
- *Peak weekday.* This is the peak daily volume estimated to occur after a ship arrives at a terminal. For 2010, the peak condition assumes one 8,000-TEU (Twenty Foot Equivalent Unit) ship at T-30; the year 2030 conditions assume that an 8,000-TEU ship could be berthed at T-30 with a smaller 4,800-TEU ship at T-25. Under these peak conditions, about 60 percent of the combined ship cargo would be discharged in Seattle, or a total of about 4,270 containers.

Each container that passes through the terminal gates generates an estimated 2.06 truck trips. This factor assumes that a truck hauls a container to or from the terminal and makes the return trip "light," which assumes that the truck has either an empty chassis or just the truck tractor (also called a "bobtail"). In addition, some containers are removed from the terminal without being loaded onto a ship. This occurs if a customer needs an empty container or a container needs repair. The 0.06 of the total 2.06-truck-trips-per-container rate accounts for this "repositioning" activity.

Most of the truck trips (70 percent) would be destined to and from near-dock intermodal yards (BNSF Railway's SIG Yard or UP's Argo Yard). An estimated 15 percent of the trips would be shuttled to an off-dock container yard located south along East Marginal Way. The remaining 15 percent of the trips would be destined to other locations throughout the region. Table 3.12-1 summarizes the daily trips generated by the terminal for each condition listed above.

The number of trucks that arrive and depart the terminal during each hour of the day is determined by gate operations at the terminal. The reactivated T-30 container terminal is expected to operate similarly to the existing T-18 gates on Harbor Island. Currently, the T-18 gates operate from 7:00 AM through 5:00 PM on weekdays, with occasional night operations when needed to move intermodal traffic. The worst-case condition for traffic assumes a daytime-only gate operation. In the future, if a nighttime gate were available, it would reduce the traffic during the daytime hours. Detailed gate volume data for T-18 show that terminal truck traffic peaks in the morning between 8:00 and 9:00 AM and again in the afternoon between 1:00 and 2:00 PM. During the afternoon commuter peak period (between 4:00 and 6:00 PM), the terminal generates very little traffic. The percentage of terminal truck traffic for the AM, midday, and PM peak hours was determined to be about 13 percent, 14 percent, and 5 percent, respectively.

**Table 3.12-1 Daily Truck Trips Generated by T-25/30 Container Operations**

| | EXISTING (2005 ONLY T-25) | | YEAR 2010 | | YEAR 2030 | |
|---|---|---|---|---|---|---|
| | Ave. Day[1] | Peak Day | Ave. Day[1] | Peak Day[2] | Ave. Day[1] | Peak Day |
| To/from SIG Yard | 0 | 0 | 830 | 2,240 | 1,550 | 3,580 |
| To/from Argo Yard | 20 | 70 | 90 | 250 | 170 | 400 |
| To/from Off-Dock Container Yard | 0 | 0 | 200 | 160 | 370 | 260 |
| To/from Local/Regional Businesses | 400 | 1,000 | 200 | 160 | 370 | 260 |
| Total Daily Truck Trips | 420 | 1,070 | 1,320 | 2,810 | 2,460 | 4,500 |

*Source: Heffron Transportation, Inc. May 2006.*

1. *Average day equals annual container throughput ÷ 260 days per year x 2.06 truck trips per container.*
2. *Peak day in the year 2010 assumes unloading of an 8,000 TEU ship with 60% of the cargo discharged in Seattle.*
3. *Peak day in the year 2030 assumes unloading of one 8,000 TEU ship plus one 4,800 TEU ship with 60% of the cargo discharged in Seattle.*

Employee trips were derived based on likely staffing for three shifts. It is estimated that nearly 500 employees would work at the combined T-25/30 during peak operating conditions, and would generate an estimated 1,050 trips per day and 112 trips during both the AM and PM peak hours. On an average day, not all of the terminal's cranes would be operating and the number of daily and peak hour trips are estimated to be 590 and 68, respectively. Although annual through-put volumes would increase substantially, the number of employees that operate the terminal on the average day and peak day is expected to be the same in the year 2010 and year 2030. The volume increases would be accommodated by working more days per year. Table 3.12.2 summarizes the trip generation for daily conditions as well as three peak hours for both the average day and peak day. It shows existing, year 2010, and year 2030 volumes.

**Table 3.12-2 Trip Generation Summary for T-25/30 Container Operations**

| | EXISTING (2005) | | YEAR 2010 | | YEAR 2030 | |
|---|---|---|---|---|---|---|
| | Ave. Day | Peak Day | Ave. Day | Peak Day | Ave. Day | Peak Day |
| **Daily Trips** | | | | | | |
| Truck Trips | 420 | 1,070 | 1,320 | 2,810 | 1,550 | 4,500 |
| Passenger-Vehicle Trips | 70 | 105 [1] | 590 | 1,050 | 590 | 1,050 |
| **AM Peak Hour (8:00 to 9:00 AM)** | | | | | | |
| Truck Trips [2] | 50 | 140 | 170 | 365 | 200 | 585 |
| Passenger-Vehicle Trips | 20 | 30 | 68 | 112 | 68 | 112 |
| **Midday Peak Hour (1:00-2:00 PM)** | | | | | | |
| Truck Trips [3] | 60 | 150 | 180 | 290 | 220 | 630 |
| Passenger-Vehicle Trips | 4 | 4 | 15 | 15 | 15 | 15 |
| **PM Peak Hour (4:00 to 5:00 PM)** | | | | | | |
| Truck Trips [4] | 20 | 55 | 70 | 140 | 80 | 225 |
| Passenger-Vehicle Trips | 20 | 30 | 68 | 112 | 68 | 112 |

*Source: Heffron Transportation, Inc., May 2006.*

*1. Assumes that there are an average of 33 employees at T-25 each day, and up to 50 on peak days.*

*2. Assumes 13% of truck trips occur during the commuter AM peak hour.*

*3. Assumes 14% of truck trips occur during the midday peak hour.*

*4. Assumes 5% of truck trips occur during the commuter PM peak hour.*

*Trip Distribution and Assignment* – On an average day, a high percentage (85 percent) of the truck trips generated by T-30 will be very short dray trips between the container terminal and near-dock intermodal terminals or off-dock container yards. The likely destinations for the local and regional cargo were derived based on the location of industrial, warehouse, and distribution centers in the region. About 13 percent of the truck trips on an average day are expected to use major highways and 2 percent would be local trips to businesses in Seattle. On a peak day, an even higher percentage of the trips would be destined to local intermodal yards since the highest priority when unloading a ship is to load the trains headed east to Chicago or other inland destinations. On these days, almost all of the terminal traffic would be destined to the near-dock intermodal yards, with fewer trips being trucked to the off-dock container yard or other businesses in the region. The distribution pattern for employee trips reflects the location of housing throughout the region. The trip distribution patterns for trucks and employees are detailed in Appendix E, *Transportation Technical Report.*

The terminal truck and employee trips were assigned to the roadway network and then added to the year 2010 and 2030 traffic volumes. Detailed volume summaries are provided in the *Transportation Technical Report.*

*Traffic Operations* – Levels of service[1] for study area intersections were calculated for the future-with-project conditions. Adjustments were made to the percentage of heavy vehicles to account for the high number of trucks generated by the container terminal. Table 3.12.3 summarizes the results for the year 2010 average-day conditions as well as the year 2030 average-day and peak-day conditions.

[1] Level of service (LOS) is a qualitative measure used to characterize traffic operating conditions. Six letter designations, "A" through "F," are used to define level of service. LOS A is the best and represents good traffic operations with little or no delay to motorists. LOS F is the worst and indicates poor traffic operations with long delays. LOS D is acceptable to the City of Seattle and represents intersections that are approaching capacity. Level of service for the study area intersections was determined using the Synchro 6.0 traffic operations analysis software.

**Table 3.12-3 Level of Service Summary – Terminal 30 Area with Project**

| Signalized Intersections | AM Peak Hour | | Midday Peak Hour | | PM Peak Hour | |
|---|---|---|---|---|---|---|
| | LOS[1] | Delay[2] | LOS | Delay | LOS | Delay |
| **Year 2010 With T-30 Cargo (Average Day)** | | | | | | |
| Alaskan Way/S Atlantic Street 3 | B | 13.8 | B | 13.5 | C | 16.3 |
| E Marginal Way/Hanford Street | B | 19.7 | C | 30.5 | B | 11.4 |
| E Marginal Way/Spokane Street 5 | D | 35.6 | C | 29.3 | D | 30.8 |
| **Year 2030 With T-30 Cargo (Average Day)** | | | | | | |
| Alaskan Way/S Atlantic Street [3] | C | 16.3 | B | 14.9 | C | 19.9 |
| E Marginal Way/Hanford Street | C | 20.1 | C | 33.8 | B | 16.4 |
| E Marginal Way/Spokane Street [5] | D | 45.9 | C | 33.1 | D | 47.8 |
| **Year 2030 With T-30 Cargo (Peak Day)** | | | | | | |
| Alaskan Way/S Atlantic Street [3] | C | 17.0 | C | 15.3 | C | 20.8 |
| E Marginal Way/Hanford Street | D | 41.2 | E | 63.3 | C | 26.0 |
| E Marginal Way/Spokane Street [5] | F | 92.9 | D | 35.0 | D | 51.1 |

*Source: Synchro model developed by Heffron Transportation, Inc. Levels of service were calculated using the Synchro 6.0 methodology.*

1. *Level of service (See Appendix C for level of service definitions).*
2. *Average seconds of delay per vehicle.*
3. *Alaskan Way/S Atlantic Street is an unsignalized intersection. Level of service is reported for the worst movement at the intersection, which is the westbound left turn from S Atlantic Street to Alaskan Way S.*
4. *For existing conditions, the intersection of East Marginal Way/Spokane Street was evaluated as a coordinated, interconnected intersection similar to that of a freeway diamond interchange. For future conditions, this intersection analysis assumes changes proposed by the East Marginal Way Grade-Separation Project.*
5. *The year 2010 and 2030 conditions assume completion of the East Marginal Way Grade-Separation Project. When complete, there will only be one signalized intersection at Spokane Street.*

The level of service analysis shows that reactivating container operations at T-30 and combining the operation with T-25 would not degrade any intersection in the study area for the average-day condition. However, on the maximum peak day, the intersection at East Marginal Way/S Spokane Street would fail in the AM peak hour and the intersection of East Marginal Way/S Hanford Street would operate at LOS E during the midday peak hour. This analysis assumed that all peak traffic would be trucked during the daytime gate hours. However, under the peak conditions when two ships are being unloaded at the terminal, night gates at the terminal would likely be used for the intermodal dray trips. Therefore, the terminal should operate a nighttime gate if and when two ships are unloaded at the terminal simultaneously. Nighttime gates would reduce the hourly traffic during the daytime hours, and return traffic operations to LOS-D or better.

*Site Access and Gate Queuing* – T-30 would reuse driveways that already exist at the site. There are currently four access points along the T-30 frontage (all of which are now used for cruise operations). With the project, these would be consolidated into two driveways: one at the north end of the terminal for trucks and some employees, and one at the south end of the terminal for employees only. The main driveway located at the north end of the terminal is about 100-feet wide, but is not currently used by the cruise facility on the site. It is located where East Marginal Way bends to the east and becomes Alaskan Way. The driveways to T-25 would remain in the current location.

The proposed T-30 truck gate would have eight inbound lanes with scales; four of these lanes would be reversible. The gate at T-25 would have five inbound lanes (three with scales) and four outbound lanes. The inbound queuing capacity at the T-30 gate is estimated to be 64 trucks if just the four inbound lanes are used and 96 trucks if both the inbound and reversible lanes are used. This assumes 70-foot spacing per truck (55-foot average truck length plus additional space between trucks and for the occasional 60-foot truck). The queue storage area includes the trucks waiting at the truck gate and extends north to the Optical Character Recognition (OCR) Portal. The inbound queue storage for T-25 would be slightly reduced from current conditions by the addition of OCR Portals. It is estimated that the inbound queuing capacity at T-25 will be about 14 trucks. The terminal gates are planned to be constructed with the latest technology and operating controls. These will include:

- *A "kitchen" concept for the gate clerks.* This will allow the clerks to work remotely instead of assigned to a specific lane. The remote clerks would be able to serve either the T-30 or the T-25 gate, and could easily change between inbound or outbound moves as volumes dictate.
- *An Optical Character Recognition (OCR) system.* This system will automatically collect the container number, chassis number and license plate number when a truck enters or exits the terminal, and will eliminate the need to hand-enter this information, and speed up the processing time at the gate.
- *Radio Frequency Identification (RFID) tag readers.* This system will allow automated capture of the truck ID data when the truck reaches the gate.

With the above technologies, it is expected that each clerk would be able to process 300 to 400 trucks per day. It is estimated that lanes would be staffed at a 2:5 ratio—two clerks per five lanes. At full capacity, there would be 17 lanes at the combined T-25/30, which would have up to seven clerks.

The potential truck queuing conditions were evaluated for each of the inbound gates. Detailed queuing analysis is presented in the *Transportation Technical Report.* The queue analysis determined that in the year 2010, the peak queue would occur just before the gate opens at 7:00 AM. This is true for both the average day and peak day conditions. Under these conditions, the gates could operate with fewer than a full contingent of clerks without creating queuing issues.

In the year 2030, the peak queue would occur mid-morning. On an average day, the peak queue at T-25/T-30 could be accommodated by less than a full contingent of clerks. On the peak day, however, the peak queue at T-30 is estimated to be 94 trucks at about 10:00 AM, which is nearly the queuing capacity of the terminal. However, it is not expected that queues from either terminal would extend onto the adjacent street. The previous section recommended night gates when two ships are being unloaded to mitigate off-site intersection operations. Night gates for intermodal traffic—which would be the vast majority of the traffic during the peak days—would also reduce the daytime queues.

*Traffic Safety, Transit, and Non-Motorized Facilities* – Reactivating container operations at T-30 from its present use as a cruise ship terminal is not expected to adversely affect traffic safety in the site vicinity.

The proposed project is expected to generate few if any transit, bicycle or walking trips. While some employees may choose to commute by bus, these employees would need to walk from transit stops located along 1st Avenue S. There are no existing or planned transit routes along East Marginal Way. The sidewalk and bicycle lane adjacent to the site on East Marginal Way would remain with the project. No changes to these facilities are proposed.

*Parking* – T-30 would have about 200 parking spaces for employees: 34 at the north end of the terminal and about 166 near the south end of the terminal. The terminal's peak employment is expected to be about 171 employees. These would be accommodated by the proposed on-site parking supply. There would be an on-site circulator bus that will shuttle employees between the main parking lot and their on-site work locations. No off-site parking is expected.

## Public Services

*Police Service* – The Port of Seattle Police Department (POSPD) provides primary police protection to the Port sites. POSPD is the primary E-911 emergency call/dispatch for all Port-owned properties. As such, POSPD provides special teams/units such as Criminal Investigations, Tactical, Bomb, K-9, SCUBA, Boat Operators, Crisis Negotiations, Incident Command, and other police services. The Port's Seaport properties are subject to increased security provisions as a result of recently changing federal requirements. The Transportation Security Administration (TSA), as an agency of the federal Department of Homeland Security, oversees the security efforts for all Port properties. Currently, the US Coast Guard maintains responsibility for shoreline security for the Port. Revised security measures may affect access to T-30.

*Fire and Emergency Services* – The City of Seattle Fire Department (SFD) provides fire protection and basic life support (BLS) and emergency medical service (EMS) throughout the City from 33 fire stations and Harborview Medical Center. Headquarters for the department are located at Fire Station 10 in Pioneer Square.

Short-term, construction-related impacts

During construction, there could be an increase in service calls related to site construction, short-term traffic revisions, and site security. There could be an increase in service calls related to site construction and to respond to potential construction-related injuries. Onsite security measures, such as fencing and securing areas where equipment is stored, could be implemented to reduce the potential for construction-related incidents.

Long-term impacts

During operations, there may be an increased need for security due to the increase in container terminal activity. Buildings would be constructed in compliance with the International Building Code and Fire Code regulations. Adequate fire flow for all the project would be provided per code. Existing utility systems (including water systems and capacity) would be installed and improved, as needed, to meet water capacity demands and code requirements for the Seattle Fire Department.

## Utilities

The majority of electrical utility work for the T-30 project would occur at T-30 proper. T-25 was upgraded in 2005 and currently serves as a container terminal. Some modifications to electrical elements would be required at T-25. Lighting improvements would be included in the project at T-30 to increase safety in the active terminal work areas. The project would install additional fire hydrants and piping back to the closest on-site water main grid.

Other proposed utility installations would be the water and sewer services to the proposed guard facility at the north gate, including a small diameter water line service from an adjacent water main located just west of the proposed guard facility. The building would also require a sanitary sewer service, which would be routed from the building to the sanitary sewer main located within the adjacent roadway.

Any temporary interruptions in service during construction would affect only Port of Seattle tenants, who would be notified in advance by the appropriate utility.

Electrical demand of the container terminal operation would not exceed that of the current use as a cruise terminal, so there would be no additional demand on the electrical system. It is not expected that the requirements of the project would exceed Seattle Water Department, Seattle City Light, Puget Sound Energy, or Qwest's available capacity in the area. However, the increased usage of these utilities may occur as a result of the container terminal activity. No mitigation is expected to be necessary.

## CONDITIONS – SHORELINE

*Prior to Issuance of a Building Permit*

1. Show clearly on plans and provide typical scaled elevation drawings of the view-obscuring fence along the entire length of both T-25 and T30, with height dimension from existing grade to the top of the screening.
2. Verify the street tree spacing for existing tree based on the City Arborist's minimum/maximum requirements. Provide plantings planting strips and/or tree pits of adequate size for missing trees of the same species and size as required by the City Arborist.
3. Show on plans that the continuity of sidewalks will be provides and maintained on portions of the right-of-way where sidewalks are not provided or reconstruct sidewalks including concrete curbs where they are in bad condition. Any existing curb cut that is not used for vehicle ingress/egress to the site shall be removed and concrete curbs including planting strip and sidewalks are to be constructed to match existing.
4. Submit a completed drainage control plan that complies with SMC 22.802.020 B2d and Director's Rule 2000-16, (Category 2) BMPs for Construction Erosion and Sedimentation Control Plans. Adherence to the measures outlined in the attachment shall mitigate erosion and sedimentation impacts to Salmon Bay Waterway.
5. A traffic control plan shall be developed to show how pedestrian, bicycle, and motor vehicle traffic would be accommodated when the southbound lanes are closed for construction.

*During Construction*

6. Prior to commencing construction, an emergency containment plan and procedures shall be developed for all toxic material that will be kept on site. All necessary equipment for containment and clean-up of this toxic material should be stocked on the site. A sufficient number of personnel, both during construction and during on-going operations, shall be trained in the proper implementation of this plan.
7. Equipment for the transportation, storage, handling and application of oil, chemicals, or other hazardous materials shall be maintained in a safe and leak-proof condition to prevent release of this material into the water. If there is any evidence of leakage, the further use of such equipment shall be suspended until the deficiency has been satisfactorily corrected.

8. A Section 10 Permit from the Army Corps of Engineers and a Hydraulic Project Approval Permit from Washington Department of Fish and Wildlife shall be successfully obtained and the terms and conditions of each permit shall be followed.
9. The owner(s), builder(s), or responsible party(s) shall follow the BMPs developed for the project to prevent debris and other deleterious material from entering the water during demolition and construction.
10. If floating debris enters the water during the proposed work this debris shall be removed immediately and stored until it can be disposed of at an appropriate upland facility.
11. If heavy (sinking) debris enters the water during the proposed work the location of the debris shall be documented. When construction is complete a diver shall retrieve all debris that has entered the water and sunk during the proposed work.
12. Equipment using oil, gasoline, or diesel used on site shall be checked for evidence of leakage, if evidence of leakage is found the further use of such equipment shall be suspended until the deficiency has been satisfactorily corrected.
13. If treated wood is proposed for other structures, this wood shall be professionally treated and completely cured using the best management practices developed by the Western Wood Preservers Institute (http://www.wwpinstitute.org/) before this wood is used for this project.
14. All creosote material, pile stubs, and associated sediments must be disposed of in a landfill which meets the liner and leachate standards of the Minimum Functional Standards, Chapter 173-304 WAC.
15. Catchbasins shall be protected during demolition, construction and repaving to prevent any deleterious material from entering the water.

*Life of the Project*

16. Cargo container vessels shall be required to follow general BMPs for Terminals 25 and 30 to keep debris and deleterious material out of the water.

## CONDITIONS - SEPA

*For the Life of the Project*

17. Note that while the emission control measures listed have not yet been adopted in a formal agreement between the Port and the prospective T-25/30 tenant, the Port will implement an enforceable agreement prior to occupancy of the expanded container terminal facility.

*During Construction and For the Life of the Project*

18. The contractor will be required to prevent spillage of concrete during the activities that involve use of uncured concrete (concrete casting for the Terminal 28 pile cap strengthening). Other measures include the following:
19. Care will be taken to prevent any petroleum products, chemicals, or other toxic or deleterious materials from entering the water. Fuel hoses, oil drums, oil or fuel transfer valves and fittings, etc., will be checked regularly for drips or leaks, and shall be maintained and stored properly to prevent spills into State waters. Proper security shall also be maintained to prevent vandalism.
20. The contractor will have a spill containment kit, including oil-absorbent materials, on site to be used in the event of a spill or if any oil product is observed in the water.

21. If a spill were to occur, work would be stopped immediately, steps would be taken to contain the material, and appropriate agency notifications would be made.

22. Spills and/or conditions resulting in distressed or dying fish shall be reported immediately to Ecology's Northwest Regional Spill Response Office at (206) 649-7000 (a 24-hour phone number) and to the National Response Center at (800) 424-8802.

To prevent any harm from construction related impacts, the Port will also require the following measures for pile removal and installation:

23. A boom will be installed around the work area prior to removal of the timber piling and related structures to contain and collect debris. Debris will be disposed of at an approved upland location.

24. Extracted fender piling will be pulled from the water directly and placed on a receiving barge or on the adjacent concrete container cargo pier deck immediately in order to minimize release of any adhering sediment.

25. Extracted piling will not be rinsed or washed in or above the aquatic area in any way.

26. The receiving barge or pier site on which the extracted piling are placed will be fitted for control of drainage, such that any sediment or creosote treated wood fragments present on the extracted fender piling will be contained. The containment basin will be sufficiently durable to function as a continuous confinement mechanism.

27. To avoid the potential introduction of treated timber fibers into the water, only concrete and steel piling will be installed.

*During Construction (Dredging Operations)*

28. Construction of the proposed project will comply with water quality restrictions imposed by the Washington State Department of Ecology (Ecology) in its 401 Water Quality Certification.

29. An on-site inspector will be present during construction to ensure contract and permit compliance. The inspector and the contractor each have a copy of Contract Plans and Specifications on site and will be aware of all permit requirements.

30. The dredging contractor will inspect fuel hoses, oil or fuel transfer valves and fittings on a regular basis for drips or leaks in order to prevent spills into the surface water.

31. The contractor will be responsible for the preparation of a SPCC (Spill Prevention Control and Countermeasures) Plan to be used for the duration of the project. The plan will be submitted to the Project Engineer prior to the commencement of any construction activities. A copy of the plan with any updates will be maintained at the work site by the contractor.

32. The SPCC Plan will identify construction planning elements and recognize potential spill sources at the site. The SPCC Plan will outline responsive actions in the event of a spill or release and shall identify notification and reporting procedures. The SPCC Plan shall also outline contractor management elements such as personnel responsibilities, project site security, site inspections, and training.

33. The SPCC Plan will outline what measures shall be taken by the contractor to prevent the release or spread of hazardous materials, either found on site and encountered during construction but not identified in contract documents, or any hazardous materials that the contractor stores, uses, or generates on the construction site during construction activities.

These items include, but are not limited to, gasoline, oils, and chemicals. Hazardous materials are defined in RCW 70.105.010 under "hazardous substance."

34. The contractor shall maintain, at the job site, the applicable equipment and material designated in the SPCC plan.

35. Excess or waste materials will not be disposed of or abandoned waterward of Ordinary High Water (OHW) or allowed to enter waters of the State. All dredge materials will be disposed at a DMMP approved open water disposal site or at an approved upland landfill site depending upon the suitability of the material.

36. The dredged material will be offloaded from the barge by mechanical methods (e.g., crane or backhoe), and placed into stockpiles for dewatering or directly into truck or rail cars for transport to an approved upland landfill facility. Free water associated with the offloading, stockpiling, and dewatering activities will be captured and discharged back into receiving waters (if the effluent meets State water quality criteria) or discharged into a Publicly Owned Treatment Works (POTW).

37. Appropriate BMPs will be employed to minimize sediment loss and turbidity generation during offloading and stockpiling of unsuitable sediment at the offloading/stockpile site, including: (1) providing a spill plate or similar to prevent sediment loss during barge offloading, (2) enclosing the stockpile area to ensure sediment is not lost from the stockpile, (3) collecting and treating effluent from the stockpile to prevent suspended sediment loss during effluent discharge to receiving waters or to a Publicly Owned Treatment Works (POTW).

38. For unsuitable sediment, effluent coming from the dewatering process would be treated for compliance with state water quality standards and then released back into the receiving water. If the Water Quality Certification specifies otherwise, the effluent would be disposed at an approved Publicly Owned Treatment Works (POTW). No effects to water quality would result from this activity.

*During Construction and For the Life of the Project (Environmental Health)*

39. Construction designs shall identify the locations of known soil and groundwater contamination and provide specifications to guide management of contaminated soil and groundwater (testing, treatment, and/or disposal) to minimize inadvertent release of contaminants to the environment.

40. Plans to address unanticipated contamination discovered during construction shall be developed and implemented. Such plans shall include notification requirements in the event suspicious conditions are encountered, safety procedures, and response actions. The plans and specifications shall be designed to provide for worker health and safety and to minimize cost and schedule impacts. The plans shall include the safety requirements of WAC 296-843, Hazardous Waste Operations, and response actions that either remove, treat, or contain the contamination or, at a minimum, do not preclude future removal, treatment, or containment of the contamination. The plans shall also include spill response measures to address construction-related releases (e.g., a hydraulic oil spill).

41. Should contamination be encountered during construction, cleanup action goals to be achieved through removal, treatment, and/or containment of hazardous materials shall be established provisions based on evaluation of the most appropriate cleanup method based on evaluation criteria contained in the MTCA regulations.

42. Standard dust control measures (e.g., water application) shall be used during construction to limit the generation of airborne dust which, if inhaled by site workers or the surrounding population, could potentially result in exposure of hazardous material.

43. Contaminated soil shall be disposed of at facilities permitted to manage the type of soil that is present at the site and in a manner consistent with the requirements of the Solid Waste Regulations (WAC 173-350) and State Dangerous Waste Regulations (WAC 173-303). Soil may be treated in place if removal is not feasible.

44. Dewatering discharges shall be monitored to assess the quality and will provide for treatment, if needed, and compliance with applicable discharge permits for short-term (i.e., construction dewatering) and any long-term (operational dewatering) discharges. If necessary, investigate whether excavations which require dewatering will intercept groundwater contamination.

*During Construction and For the Life of the Project (Light and Glare)*

45. Exterior lighting on container vessels at dock shall be low-intensity and shielded and be directed away form aquatic areas.

*During Construction (Historic/Cultural Resources)*

46. A professional archaeologist shall be available during ground-disturbing activities if subgrade excavations will be deep enough to intersect intact tide flat surfaces below the fill at T25-30. An Archaeological Construction Monitoring and Discovery Plan shall be prepared for subgrade excavations that are expected to reach lower than fill level.

*For the Life of the Project (Transportation)*

47. Night gates shall be implemented for intermodal traffic, if the terminal were to have two ships unloading at T-25/30 simultaneously.

Signature: (signature on file) Date: June 7, 2007
Colin R. Vasquez, Senior Land Use Planner

CRV:rgc
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