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Memorandum

Date: August 22, 2013

Subject: City of Vancouver Shoreline Management Program Compliance

From: Brian Carrico, AICP, BergerABAM

To: David Corpron, Kelly Flint, Savage

Route to:

1.0 INTRODUCTION

The purpose of this technical memorandum is to discuss the provisions of the City of Vancouver (City) Shoreline Master Program (SMP) that apply to the Tesoro Savage Vancouver Energy Distribution Terminal (the Facility). The provisions were identified based on the policies and provisions identified by the City in the report of the pre-application conference. This memo also discusses how the Facility is consistent with the policies.

2.0 SHORELINE MASTER PROGRAM APPLICABILITY

Consistent with Section 2.1.1(a) on p. 2-1 of the SMP, the SMP applies to all shorelands and waters within the City limits that fall under the jurisdiction of Revised Code of Washington (RCW) 90.58 including the following geographic area that includes the project site:

> *On the Columbia River from the eastern boundary of Wintler Park downstream to the eastern boundary of Parcel #153105000 (also referred to as 'Port Parcel 3') shorelands shall include those lands extending two hundred (200) feet in all directions as measured on a horizontal plane from the ordinary high water mark (OHWM); floodways and contiguous floodplain areas landward two hundred (200) feet from such floodways; and all wetlands and river deltas associated with the streams, lakes and tidal waters that are subject to the provisions of this Program, as may be amended; the same to be designated as to location by Ecology, as defined by RCW 90.58.*

The SMP divides the shoreline jurisdiction on the site into two major environments: Aquatic and Upland. The Upland environment in the project area is designated as high-

intensity, and extends 200 feet landward of the Washington State Department of Ecology ordinary high water mark (OHWM).

The proposed project involves work below the Ecology OHWM of the Columbia River in the Aquatic shoreline environment and within 200 feet of the OHWM in the Urban High Intensity (UHI) shoreline environment. The following discussion addresses the consistency of the project with the City's SMP and its policies and regulations as they relate to both of these shoreline environments.

Table 1 identifies the specific Facility elements proposed within shoreline jurisdiction.

According to Table 6-1 Shoreline Use, Modification and Development Standards of the SMP, water-dependent uses are permitted in the Aquatic and High-Intensity shoreline environments. The proposed project is a facility that will receive crude oil by rail, store it on site, and ship it via the Columbia River. Its activities require direct access to the shoreline for operation and, as such, meet the definition of a water-dependent use:

> 198. *Water-Dependent Use or Activity – A use or a portion of a use which requires direct contact with the water and cannot exist at a non-water location due to the intrinsic nature of its operations.*

Table 1: Facility Elements in Shoreline Jurisdiction

Shoreline Jurisdiction	Elements Falling within Shoreline Jurisdiction
Upland	• Portions of two designated rail tracks at Terminal 5. • Two transfer pipelines, each approximately 24 to 36 inches in diameter that will connect the storage tanks to the vessel loading system at Area 400. • A 6-inch return line that will return crude oil from the vessel loading system back to the storage tanks. • A 16- to 22-inch diameter line that will deliver hydrocarbon vapor generated during the loading of vessels to the marine vapor combustion unit (MVCU). • A vapor blower staging unit that will be constructed on an approximately 425-square foot concrete pad approximately 30 feet west of the Berth 13 access trestle. • Structures including: – An approximately 1,250-square foot single-story E-house located west of the Berth 13 access trestle. – An approximately 300-square foot single story motor control center (MCC) building located approximately 250 feet west of the Berth 13 access trestle. • 10 parking stalls that will be created in an existing gravel mobilization area approximately 110 feet east of the Berth 14 access trestle.

Shoreline Jurisdiction	Elements Falling within Shoreline Jurisdiction
	• MVCUs • An approximately 24-foot-wide access driveway
Aquatic	• Two transfer pipelines, each approximately 24 to 36 inches in diameter, that will be installed on the existing Berth 13 trestle and T dock to connect the storage tanks to the vessel loading system at Area 400. • A 6-inch return line that will be installed on the existing Berth 13 trestle and T dock to return crude oil from the vessel loading system back to the storage tanks. • Vessel loading equipment that will be installed on the dock and include crane(s), piping manifold, high pressure hoses, hose support equipment, crane control room, dock safety unit, and safety equipment including skiff, boom reels, and response equipment. • Modifications to the existing berths 13 and 14 dock including: – Removal of two mooring dolphins and two breasting dolphins including 48, 18-inch steel pipe piles and 8, 12 ¾-inch steel fender piles and approximately 1,330 square feet of existing concrete pile cap. – Installation of 4, new 27- foot diameter (approximately 2,150 square feet combined new, solid overwater coverage) mooring dolphins including 40, 36-inch steel pipe piles. – Removal of approximately 3,250 square feet of grated walkway associated with the existing breasting dolphins that will be removed. One existing 18-inch steel pipe pile supporting the walkways also will be removed. – Addition of 4 to 8, 24–inch steel pipe piles to Berth 13 dock platform. – Addition of 16, 24-inch steel pipe piles (all below the OHWM) to the existing bents at Berth 13 access trestle. – Addition of 6 to 12, 36-inch steel pipe piles at the existing trestle abutment at Berth 13, all above OHWM. – Installation of structural connection framing between the Berth 13 platform and the adjacent upstream and downstream breasting dolphins. Installation of grated walkways on top of the framing. Addition of 2, 24-inch steel pipe piles to support structural framing. – Addition of approximately 2,850 square feet of new grated walkways between mooring and breasting dolphins with 4, 24-inch steel piles to support the walkways. Grated walkways will mostly be reused portions of existing walkway that was removed. • Removal of existing structures and piles at Terminal 2.

3.0 CRITERIA FOR SDP

Per RCW Section 90.58.340, the local jurisdiction, in this case the City of Vancouver, is responsible for developing policies related to the use of its shorelines. These policies and the local shoreline management master program are required to implement the program contents identified in RCW 90.58.100. As such, the applicable policies and procedures per WAC 173-27-150 are those of the City's SMP.

Similarly, the provisions of WAC 173-27 generally reflect administrative provisions for the local municipality to adopt with its SMP. Thus, the regulations that apply are found in the City's SMP and addressed below. Sections 173-27-150 of the WAC identify the review criteria for shoreline substantial development permits (SDPs). They are as follows.

WAC 173-27-150 Review criteria for substantial development permits.

(1) A substantial development permit shall be granted only when the development proposed is consistent with:

(a) The policies and procedures of the act;

(b) The provisions of this regulation; and

(c) The applicable master program adopted or approved for the area. Provided, that where no master program has been approved for an area, the development shall be reviewed for consistency with the provisions of chapter 173-26 WAC, and to the extent feasible, any draft or approved master program which can be reasonably ascertained as representing the policy of the local government.

(2) Local government may attach conditions to the approval of permits as necessary to assure consistency of the project with the act and the local master program.

4.0 SMP GENERAL SHORELINE USE AND DEVELOPMENT REGULATIONS

4.1 Shorelines of Statewide Significance (SMP Section 3.2)

The Columbia River is identified as a shoreline of statewide significance and the City has designated the shoreline environment within the project site as areas 200 feet landward of the OHWM and Aquatic for areas below the OHWM. The following language illustrates how the project complies with the state legislative intent for shorelines per RCW 90.58.020 and the City's shoreline management policies listed in Section 3.2 of the SMP.

1. *Preference shall be given to the uses that are consistent with the statewide interest in such shorelines. These are uses that: a. Recognize and protect the statewide interest over local interest; b. Preserve the natural character of the shoreline; c. Result in long term over short term benefit; d. Protect the resources and ecological function of the shoreline; e. Increase public access to publicly-owned areas of the shorelines; f. Increase recreational opportunities for the public in the shoreline; and g. Provide for any other element as defined in RCW 90.58.100 deemed appropriate or necessary.*

   Response: The proposed project is consistent with these regulations because:

   - The site of the proposed project does not include a natural shoreline, and thus no "natural character of the shoreline" will be affected by this request.
   - The current riparian conditions of the project site reflect a developed and maintained industrial port. Most of the site is heavily disturbed by current industrial and port uses and, in addition, the surface of the project area is predominantly impervious because of paving, filling, and compacting of materials.
   - The shoreline at the project site is currently developed as a marine terminal and berth, is owned by the Port of Vancouver, and is not accessible to the public.
   - The proposed project establishes a water-dependent industrial use on an existing industrial site and repurposes and enhances existing Port assets for economic development. As such, the proposed project is not intended to increase recreational opportunities.

2. *Uses that are not consistent with these policies should not be permitted on SSWS.*

   Response: The proposed project is consistent with the applicable SMP policies and regulations as demonstrated by the responses that follow.

3. *Those limited shorelines containing unique, scarce and/or sensitive resources should be protected.*

   Response: Because of the history of development on the site, the limited amount of vegetation present, and the surrounding industrial activity, the project area provides low quality habitat with little functional value for native flora and fauna. (Part 3 of the Application for Site Certification discusses habitat on the site.) By designating the site as an Urban High Intensity (UHI) shoreline environment, the City has recognized the intent for water-dependent and water-related uses at the site.

4. *Implementation of restoration projects on shorelines of statewide significance should take precedence over implementation of restoration projects on other shorelines of the state.*

   Response: The project is not a restoration project and therefore this provision is not applicable.

5. *Development should be focused in already developed shoreline areas to reduce adverse environmental impacts and to preserve undeveloped shoreline areas. In general, SSWS should be preserved for future generations by 1) restricting or prohibiting development that would irretrievably damage shoreline resources, and 2) evaluating the short-term economic gain or convenience of developments relative to the long-term and potentially costly impairments to the natural shoreline.*

   Response: Like other upland industrial shoreline areas at the Port, the upland area of the site is designated UHI and the area waterward of the OHWM is designated Aquatic. Per Section 4.3.5.2 of the SMP, the UHI designation is intended for dense and developed urban areas with low to moderate ecological function and low to moderate opportunity for ecological restoration or preservation.

   Section 2.1 of the Application for Site Certification discusses the history of the site, which is within the former location of aluminum processing facilities owned and operated by Alcoa. The site has been the location of intensive historic industrial use, dating back to 1940 when Alcoa first developed the site for aluminum smelting operations. Given the developed condition of the project site and its continued industrial waterfront use, the City has designated the property appropriately.

   The project design and extensive operational protocols have been developed to avoid, minimize, and contain the inadvertent release of crude oil during operations. The project will implement several impact minimization measures and best management practices (BMPs) to minimize the potential for any construction-related temporary water quality impacts associated with leaks or spills or from temporarily increased turbidity. These measures include preparing and abiding by a spill prevention, control, and countermeasures (SPCC) plan, the operations manual, and the spill contingency plan; inspecting construction equipment daily to ensure that there are no leaks of hydraulic fluids, fuel, lubricants or other petroleum products; and locating temporary material and equipment staging areas above the OHWM of the action area waterbody and

outside environmentally sensitive areas. With these measures, the project will be operated and managed in a manner that will ensure shoreline resources are not irretrievably damaged.

Lastly, given that the proposed project will use an existing developed marine terminal along a shoreline with low ecological function and the project involves a substantial long-term investment in the regional and local economies, the proposed development represents an appropriate use of the shoreline as described in SMP Section 3.2.

4.2 General Shoreline Use and Development Regulations (SMP Section 5.1)

As acknowledged in the City staff report for the pre-application conference, dated June 27, 2013, the following policy sections apply to the proposed project.

Table 2: SMP Policies and Regulations

Section	Associated Regulation(s)
5.1	1-2, 4-6, 11, 15
5.2	All
5.3	All
5.4	2
5.6.1	All
5.6.2	1-5
5.6.3	All
5.7	All
5.8.1	All
5.9	1-7
5A	All
Table 6-1	All
6.3.3.5	1, 4-5
6.3.6	1, 5-6
6.3.13	1-5

The responses below illustrate how the project complies with the applicable general shoreline use and development regulations described in Section 5.1 of the SMP.

1. *Shoreline uses and developments that are water-dependent shall be given priority.*

   Response: As indicated, the project is a water-dependent use. Consequently, the project is sited appropriately and is a prioritized use within the UHI shoreline designation.

2. *The applicant shall demonstrate all reasonable efforts have been taken to avoid and where unavoidable, minimize and mitigate impacts such that no net loss of critical area and shoreline ecological function is achieved. Mitigation shall occur in the following order of priority:*

   a. *Avoiding the impact altogether by not taking a certain action or parts of an action. This may necessitate a redesign of the proposal.*

   b. *Minimizing unavoidable impacts by limiting the degree or magnitude of the action and its implementation by using appropriate technology or by taking affirmative steps to avoid or reduce impacts. The applicant shall seek to minimize fragmentation of the resource to the greatest extent possible.*

   c. *Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;*

   d. *Reducing or eliminating the impact over time by preservation and maintenance operations;*

   e. *Compensating for the impact by replacing, enhancing, or providing substitute resources or environments. The compensatory mitigation shall be designed to achieve the functions as soon as practicable.*

   f. *Monitoring the impact and the compensation projects and taking appropriate corrective measures.*

   Response: By locating the proposed project at an existing terminal, effects to the shoreline environment have been avoided and minimized. Construction BMPs will be employed as outlined in the Application for Site Certification to avoid and minimize effects during construction. Where unavoidable impacts result from the project, the development of the project incorporates mitigation.

3. *In addition to compensatory mitigation, unavoidable adverse impacts may be addressed through voluntary restoration efforts.*

   Response: No restoration activities are planned.

4. *Shoreline uses and developments shall not cause impacts that require remedial action or loss of shoreline ecological functions on other properties.*

   Response: The project design avoids direct impacts to adjacent properties by avoiding actions that could lead to changes in river dynamics that could affect adjacent properties. During construction, noise has the potential to affect properties beyond the project footprint. These impacts would be short term and, considering the developed nature of adjacent properties and the location of the project within an industrial zone with existing sources of noise, the impacts would not require remedial action or result in loss of ecological functions.

5. *Shoreline uses and developments shall be located and designed in a manner such that shoreline stabilization is not necessary at the time of development and will not be necessary in the future for the subject property or other nearby shoreline properties unless it can be demonstrated that stabilization is the only alternative that allows a reasonable and appropriate water-dependent use to become established or expand or protects public safety and existing primary structures.*

   Response: The activities proposed within the shoreline environment will not result in the need for shoreline stabilization. The shoreline along this reach of the Columbia River is armored with riprap and no activities are proposed at the shoreline that will destabilize the shoreline embankment.

6. *Land shall not be cleared, graded, filled, excavated or otherwise altered prior to issuance of the necessary permits and approvals including a statement of exemption for a proposed shoreline use or development to determine if environmental impacts have been avoided, minimized and mitigated to result in no net loss of ecological functions.*

   Response: No clearing, grading, or excavation activities will occur until all necessary permits and authorizations for such activities have been obtained.

9. *On navigable waters or their beds, all uses and developments should be located and designed to:*

   a. *Minimize interference with surface navigation;*

   b. *Consider impacts to public views; and*

c. *Allow for the safe, unobstructed passage of fish and wildlife, particularly species dependent on migration.*

Response: The facility improvements that are proposed will be outside the Columbia River navigational channel and will not affect surface navigation on the river. Because the proposed project has been sited to use an existing dock structure and berth, the condition of the shoreline will remain industrial and in marine terminal use. A visual assessment analyzing the impact of the proposed project on views from the Columbia River looking north toward the shoreline concluded that the project will have a low level of impact on views from the Columbia River. This low level of impact is because of the distance of upland facilities from the viewpoints and because the project is consistent with the existing industrial context of the viewshed. Section 4.2.3 of the Application for Site Certifications includes details about the visual assessment.

Lastly, the number of piles that will be installed to support the proposed modifications at the loading terminal is the minimum necessary to meet safety and structural requirements. Their installation will occur in the same general location as the existing in-water dock and is not expected to obstruct the passage of fish and/or wildlife. In addition, to compensate for benthic impacts, significantly more piles will be removed than installed.

11. *In-water work shall be scheduled to protect biological productivity (including but not limited to fish runs, spawning, and benthic productivity). In-water work shall not occur in areas used for commercial fishing during a fishing season unless specifically addressed and mitigated for in the permit.*

Response: In-water work will occur during the approved in-water work window as established by the US Army Corps of Engineers (USACE) and the Washington State Department of Fish and Wildlife (WDFW). In addition, to reduce the amount of in-water work required, construction above the level of the water surface but below the OHWM may occur outside the work window when water levels are low.

Commercial fishing on the Columbia River near the project site is limited and the timing varies by year according to anticipated run sizes. According to information from the Oregon Department of Fish and Wildlife (ODFW), the only commercial fishery that could coincide with the work window is the Columbia River mainstem late fall fishery, which typically occurs in September and October, although the exact period varies by year. Construction activities will be

limited to an area immediately surrounding the existing loading berth and will not obstruct fishing traffic.

12. *The effect of proposed in-stream structures on bank margin habitat, channel migration, and floodplain processes should be evaluated during permit review.*

Response: The riparian area within the proposed project site is mostly devoid of vegetation, with the exception of scattered trees and vegetation below the top of the bank. Vegetation within the riparian habitat at the site consists primarily of small-diameter black cottonwood (*Populus trichocarpa*) and willows (*Salix* spp.), and non-native false indigo bush (*Amorpha fruticosa*) and Himalayan blackberry (*Rubus armeniacus*). The bank is armored with riprap, and above the riprap there is a narrow band of ruderal grass/forb habitat. No riparian trees or vegetation will be removed, and no impacts to bank margin habitat are anticipated.

The floodplain is located at approximately the top of bank and is discussed in section 3.3.3 of the Application for Site Certification. No fill is proposed within the 100-year floodplain. Therefore, the proposed project will not affect the 100-year base flood elevation of the Columbia River.

Historically, the Columbia River experienced channel migration but shoreline development and maintenance of the navigation channel in the project vicinity mostly confine the river to areas within the 100-year floodplain. The 100-year base flood elevation is generally located at the top of the bank at terminals 4 and 5 and it is not anticipated that project activities will result in changes to channel migration or the channel migration process.

15. *Developments permitted in the Aquatic Shoreline Designation along the Columbia River shall be sited waterward of -15 feet CRD unless shallow water habitat will be created as mitigation.*

Response: Pile installation is proposed in the Aquatic shoreline designation of the Columbia River and will occur in shallow water areas above-15 feet Columbia River Datum. The project does not propose to eliminate shallow water habitat in place of deep water habitat. Using piles and over-water structures has an effect on the value of shallow water habitat, but the design minimizes these effects by placing structures in water that is as deep water as possible, by using the minimum possible number of piles, and by using grated structures to the extent practicable. The project will "create" shallow water habit by removing structures in a number that at least equals those being placed.

4.3 Archaeological, Cultural and Historic Resources (SMP Section 5.2)

1. *All shoreline uses and development shall comply with the applicable requirements of VMC 20.710, Archaeological Resource Protection.*

2. *When a shoreline use or development is in an area known or likely to contain archaeological artifacts and data, the applicant shall provide for a site inspection and evaluation by a professional archaeologist prior to issuance of any shoreline permit or approval including a statement of exemption. Work may not begin until the inspection and evaluation have been completed and the City has issued its permit or approval.*

3. *If any item of possible archaeological interest (including human skeletal remains) is discovered on site, all work shall immediately stop, and the City, State Department of Archaeology and Historic Preservation (DAHP), and affected Native American Tribes shall be notified of the discovery. A stop-work order will be issued. The shoreline permit will be temporarily suspended. All applicable state and federal permits shall be secured prior to commencement of the activities they regulate and as a condition for resumption of development activities. Development activities may resume only upon receipt of City approval.*

   Response: Section 4.2.5 of the Application for Site Certification addresses cultural resources and no impacts from the project are anticipated. The project's unanticipated discovery plan will include the cessation of work in the location of an unanticipated archaeological or historical resource discovery and the notification of EFSEC and other appropriate jurisdictional agencies.

4. *If the discovery includes human skeletal remains, the find must be secured and protected from further disturbance; the Clark County Medical Examiner and local law enforcement shall be notified in the most expeditious manner possible. The County Medical Examiner will assume jurisdiction over the site and the human skeletal remains, and will make a determination of whether they are crime-related. If they are not, DAHP will take jurisdiction over the remains and report them to the appropriate parties. The State Physical Anthropologist will make a determination of whether the remains are Native American and report that finding to the affected parties. DAHP will handle all consultation with the affected parties as to the preservation, excavation, and disposition of the remains.*

   Response: If evidence of burials is encountered, all ground-disturbing activity in the vicinity will be halted immediately, and the Department of Historic and Archaeological Preservation (DAHP), the Clark County Sheriff's Office, and the appropriate tribes will be notified.

4.4 Critical Areas Protection (SMP Section 5.3)

The following sections address the regulations in Section 5.3, Critical Areas Protection, of the SMP.

1. *In addition to the provisions of this section, critical areas (fish and wildlife habitat conservation areas, frequently flooded areas, geologic hazard areas, and wetlands) located within shoreline jurisdiction and their buffers are regulated and protected by Chapter 5A, VMC 20.740, Critical Areas Protection as modified for consistency with the Act and this Program. All shoreline development shall comply with VMC 14.26, Water Resources Protection.*

   Response: The critical areas located within the shoreline jurisdiction of the site include fish and wildlife habitat conservation areas, frequently flooded areas, and geologic hazard areas. Additional information regarding these elements is located in the following sections of the Application for Site Certification: section 3.4 for fish and wildlife, section 3.3.3 for frequently flooded areas, and section 3.1 for geologic hazards.

2. *Unless otherwise stated, no development shall be constructed, located, extended, modified, converted, or altered or land divided without full compliance with this Program whether or not a shoreline permit or written statement of exemption is required.*

   Response: This memo addresses the City's SMP and includes details about how the proposed project is consistent with the policies and regulations of the SMP.

3. *Any allowed use, development, or activity affecting a critical area proposed on a parcel located in the shoreline jurisdiction, whether or not exempt from obtaining a shoreline substantial development permit, shoreline conditional use, or shoreline variance, shall be regulated under the provisions of this Program.*

   Response: This narrative and the Application for Site Certification address the critical area provisions of the SMP.

4. *Shoreline uses and developments and their associated structures and equipment shall be located, designed and operated using best management practices to protect critical areas.*

   Response: The proposed project will be completed using BMPs to protect critical areas as described in sections of the Application for Site Certification.

5. *The applicant shall demonstrate all reasonable efforts have been taken to avoid and where unavoidable, minimize and mitigate impacts such that no net loss of critical area and shoreline ecological function is achieved. Mitigation shall occur in the following order of priority:*
    a. *Avoiding the impact altogether by not taking a certain action or parts of an action. This may necessitate a redesign of the proposal.*
    b. *Minimizing unavoidable impacts by limiting the degree or magnitude of the action and its implementation by using appropriate technology or by taking affirmative steps to avoid or reduce impacts. The applicant shall seek to minimize fragmentation of the resource to the greatest extent possible.*
    c. *Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;*
    d. *Reducing or eliminating the impact over time by preservation and maintenance operations;*
    e. *Compensating for the impact by replacing, enhancing, or providing substitute resources or environments. The compensatory mitigation shall be designed to achieve the functions as soon as practicable.*
    f. *Monitoring the impact and the compensation projects and taking appropriate corrective measures.*

Response: Impacts to critical areas have been avoided, to a large degree, by locating the proposed facility at an existing marine terminal, thus forestalling many of the direct environmental effects that could be expected from a new in-water facility. Modifications to the structures on berths 13 and 14 are necessary and are described above including necessary mitigation to minimize and offset impacts to aquatic resources.

During construction, the primary source of potential effects will be the generation of in-water noise during pile installation. To reduce the potential effects, the following BMPs will be employed:

- Using a vibratory pile driver to the maximum extent feasible.
- Employing a bubble curtain or other similar noise attenuation method (such as sound attenuation pile caps, increased hammer size, etc.) during impact pile driving.

- Implementing a marine mammal monitoring plan during pile driving activities to reduce the risk of potential impacts to ESA-listed marine mammals.
- Driving piles only during daylight hours.
- Using watertight forms during overwater concrete work to reduce the potential for spills to the environment.

Benthic habitat impacts will be associated with the installation of steel piles and the over-water structure for the mooring dolphins and walkways; these potential impacts will be offset by the proposed removal of existing steel and wood piles and the over-water structures at berths 13 and 14 and Terminal 2.

6. *In addition to compensatory mitigation, unavoidable adverse impacts may be addressed through restoration efforts.*

   Response: No restoration efforts are planned.

4.5 Public Access (SMP Section 5.4)

1. *Provisions for adequate public access shall be incorporated into all shoreline development proposals that involve public funding unless the applicant demonstrates public access is not feasible due to one or more of the provisions of Section 5.4.2 (a-e). Where feasible, such projects shall incorporate ecological restoration.*

2. *Consistent with constitutional limitations, provisions for adequate public access shall be incorporated into all land divisions and other shoreline development proposals (except residential development of less than five (5) parcels), unless this requirement is clearly inappropriate to the total proposal. Public access will not be required where the applicant demonstrates one or more of the following:*

   a. *Unavoidable health or safety hazards to the public exist that cannot be prevented by any practical means;*

   b. *Inherent security requirements of the use cannot be satisfied through the application of alternative design features or other solutions;*

   c. *The cost of providing the access, easement, alternative amenity, or mitigating the impacts of public access are unreasonably disproportionate to the total proposed development;*

   d. *Significant environmental impacts that cannot be mitigated will result from the public access; or*

   e. *Significant undue and unavoidable conflict between public access requirements and the proposed use and/or adjacent uses would occur,*

provided that the applicant has first demonstrated and the City determines that all reasonable alternatives have been evaluated and found infeasible, including but not limited to:

i. Regulating access by such means as maintaining a gate and/or limiting hours of use;

ii. Designing separation of uses and activities (including but not limited to, fences, terracing, use of one-way glazings, hedges, landscaping); and

iii. Provisions for access at a site geographically separated from the proposal such as a street end, vista or trail system.

Response: The project does not involve the use of public funds. Vessel loading and unloading areas at the Port are off-limits to the public in accordance with the requirements of the Maritime Security (MARSEC) system and the National Terrorism Advisory System (NTAS). In addition, the shoreline in the vicinity of the project site is devoted to heavy industrial activities and facilities, including ship loading and unloading, heavy vehicle use, and sand and gravel operations. Thus, public access to the shoreline at the project site is not allowed or appropriate and public access will not be incorporated into the project design.

4.6 Site Planning and Development – General (SMP Section 5.6.1)

1. *Land disturbing activities such as grading and cut/fill shall be conducted in such a way as to minimize impacts to soils and native vegetation and shall comply with VMC 14.24, Erosion Prevention & Sediment Control and VMC 14.25, Stormwater Control.*

Response: Ground-disturbing activities such as excavation for building foundations and site grading will be limited to the minimum areas necessary to construct the project. Land-disturbing activity in the shoreline area will be limited to excavating for building and pipeline foundations, modifying the trestle abutment, and constructing the driveway and potential ground improvements to address liquefaction and lateral movement during earthquake events. Site-specific BMPs for temporary erosion and sediment control are identified in the stormwater pollution prevention plan (SWPPP) and erosion and sediment control plans. BMPs will be used in accordance with the erosion control plan to ensure consistency with City and state regulations.

2. *Development shall be designed and land disturbing activities conducted to avoid impacts to healthy trees such that they are likely to become hazard trees.*

Response: Proposed project construction activities will occur primarily on areas of existing impervious surface and in areas disturbed by past development

activities and will not affect healthy trees in the shoreline areas. No tree removal is anticipated within the shoreline jurisdiction.

3. *Impervious surfaces shall be minimized to the extent feasible so as not to jeopardize public safety. Impervious surfacing for parking lot/space areas, trails, and pathways shall be minimized through the use of alternative surfaces where feasible.*

   Response: Project elements within shoreline jurisdiction will be constructed primarily in areas of existing impervious surface. The construction of the MVCU and the proposed access driveway will create some additional impervious surface within the shoreline. These surfaces are the minimum necessary for installing the equipment and driveway and will be located beyond the limits of the regulatory buffers for the SMA and SB.

4. *When feasible, existing transportation corridors shall be utilized. Ingress/egress points shall be designed to minimize potential conflicts with and impacts upon vehicular and pedestrian traffic. Pedestrians shall be provided with safe and convenient circulation facilities.*

   Response: The project will use existing transportation corridors to the extent feasible for site access for rail and auto traffic. There is no pedestrian access to the project area. At Terminal 5, two additional rail loops will be located in an existing rail corridor landward of existing and permitted tracks. At Terminal 4, access will be provided by the construction of a driveway from the existing Harborside Drive connecting with the existing access road along the shoreline. This driveway will not conflict with existing roadways and will eliminate conflicts with the access to Berth 10, which is used for auto imports. During vessel unloading, access from the east would be restricted because of vehicles exiting the vessels.

5. *Vehicle and pedestrian circulation systems shall be designed to minimize clearing, grading, alteration of topography and natural features, and designed to accommodate wildlife movement.*

   Response: The proposed new driveway will be located perpendicular to the shoreline, reducing the length that will be in the shoreline. Minor grading will be necessary where the proposed driveway crosses existing stormwater facilities.

6. *Parking, storage, and non-water dependent accessory and appurtenant structures and areas shall be located landward from the OHWM and landward of the water-oriented portions of the principal use.*

   Response: A 10-stall parking area will be restriped in an area of existing parking landward of the OHWM along berths 13 and 14 to accommodate workers at the loading berth.

7. *Trails and uses near the shoreline shall be landscaped or screened to provide visual and noise buffering between adjacent dissimilar uses or scenic areas, without blocking visual access to the water.*

   Response: Adjacent uses along the shoreline are industrial and are similar to the proposed project. There are no trails or public access areas immediately adjacent to project elements in shoreline jurisdiction that will require visual or noise buffering.

8. *Elevated walkways shall be utilized, as appropriate, to cross sensitive areas such as wetlands.*

   Response: The proposed project will not require access across sensitive areas or wetlands. Therefore, no elevated walkways are proposed.

9. *Fencing, walls, hedges, and similar features shall be designed in a manner that does not significantly interfere with wildlife movement.*

   Response: The shoreline area of berths 13 and 14 is completed surrounded by security fencing as mandated by federal regulations. Fencing may be modified or added based on the needs of the project. Fencing will not be located in the water or along the existing vegetated areas of the bank. Since there are no other adjacent habitat areas or significant areas of wildlife use except for the river, the new fencing will not interfere with wildlife movement.

10. *Exterior lighting shall be designed, shielded and operated to:*

    a. *Avoid illuminating nearby properties or public areas;*

    b. *Prevent glare on adjacent properties, public areas or roadways;*

    c. *Prevent land and water traffic hazards; and*

    d. *Reduce night sky effects to avoid impacts to fish and wildlife.*

    Response: Exterior lighting within the shoreline will be installed on the dock to illuminate the shiploading area for safety as ship loading will include nighttime operations. Lighting will be shielded and directed toward work areas to prevent

glare and avoid illuminating areas (such as the water surface) where there is no need for lighting. Adjacent areas are devoted to industrial uses and light and glare will not result in adverse effects to these areas. See section 4.2.2 of the Application for Site Certification for further information on lighting and glare.

4.7 Clearing, Grading, Fill and Excavation (SMP Section 5.6.2)

1. *Land disturbing activities such as clearing grading, fill and excavation shall be conducted in such a way as to minimize impacts to soils and native vegetation and shall comply with VMC 14.24, Erosion Prevention & Sediment Control; 14.25, Stormwater Control; and VMC Chapter 17.12, International Building Code.*

   Response: Section 2.11 of the Application for Site Certification addresses overall stormwater management. Within the shoreline, most of the proposed project will be constructed on existing impervious surfaces and prior disturbed areas along an existing industrial waterfront. By locating on an existing and prior developed site, the project's grading plans are designed to minimize and control erosion and sedimentation. Using BMPs in accordance with the erosion control plan will ensure compliance with City and state regulations. Further, the site contains no native vegetation that would be removed with the construction of the proposed project in the shoreline area.

2. *Clearing, grading, fill, and excavation activities shall be scheduled to minimize adverse impacts, including but not limited to, damage to water quality and aquatic life.*

   Response: Clearing and grading will be minimized within shoreline jurisdiction. Clearing, grading, and fill activities will only be conducted upland and will be of limited extent; therefore, specific schedules will not be necessary.

4. *Developments shall comply with the VMC 14.24, Erosion Prevention & Sediment Control during construction and shall ensure preservation of native vegetation for bank stability. Disturbed areas shall be stabilized immediately and revegetated with native vegetation.*

   Response: Excavation for the pipelines and structures and for the placement of the two additional rail lines within the Terminal 5 loop will occur within the shoreline area. Project construction will use appropriate BMPs to manage potential erosion or turbidity concerns. No impacts to native vegetation within the shoreline area are anticipated and, as a consequence, the project will not require the re-establishment of native vegetation.

6. *Fills shall be permitted only in conjunction with a permitted use, and shall be of the minimum size necessary to support that use. Speculative fills are prohibited.*

   Response: No fill, as defined in the SMP, is planned within the 100-year floodplain. Minor fill will be necessary to place the planned access driveway across the existing stormwater facilities located north of the berth area.

7. *Any fill activity shall comply with the fill provisions of VMC Chapter 17.12. Fill shall consist only of clean materials.*

   Response: Fill materials will comply with VMC Chapter 17.12 and will consist only of clean materials.

8. *Soil, gravel or other substrate transported to the site for fill shall be screened and documented that it is uncontaminated. Use of any contaminated materials as fill is prohibited.*

   Response: All soil, gravel or other minerals brought on site for project construction will consist of clean materials from an approved offsite source consistent with VMC 17.12 and Port protocols.

9. *Fills shall be designed and placed to allow surface water penetration into groundwater supplies where such conditions existed prior to filling.*

   Response: Fill will be placed only to accommodate the proposed driveway. Because the fill will be capped by impervious surfaces, it will not allow surface water penetration to groundwater. Runoff from the driveway will directed to a stormwater system for discharge to the Columbia River. The subject site is not within an aquifer recharge zone (see section 3.3.4 of the Application for Site Certification).

10. *Fills must protect shoreline ecological functions, including channel migration processes.*

    Response: Fill is proposed for an area that does not currently provide shoreline ecological functions because it is isolated from the river by existing development and is above the OHWM.

11. *Fill waterward of OHWM shall only be allowed as a conditional use, and then only when it is necessary: a. To support a water-dependent or public access use.*

    Response: No fill is proposed below the OHWM.

12. *In the Columbia River, fills shall be prohibited between the OHWM and minus fifteen (-15) feet CRD, unless shallow water habitat will be created as mitigation.*

    Response: Consistent with these provisions, no fill is proposed below the OHWM of the Columbia River.

14. *Upon completion of construction, remaining cleared areas shall be replanted with native species on the City's Native Plant List available from the Shoreline Administrator. Replanted areas shall be maintained such that within three (3) years' time the vegetation is fully re-established.*

    Response: The proposed project will not remove any riparian vegetation on the site. However, any exposed soils that may result from proposed construction within the shoreline jurisdiction will be stabilized by re-establishing the area to pre-existing developed conditions.

4.8 Building Design (SMP Section 5.6.3)

1. *Non-single- family structures shall incorporate architectural features that provide compatibility with adjacent properties, enhance views of the landscape from the water, and reduce scale to the extent possible.*

   Response: Two new buildings are proposed in shoreline jurisdiction, proximate to berths 13 and 14. They consist of an approximately 300-square-foot and 15-foot-tall control room / E-house and an approximately 300-square-foot and 15-foot-tall MCC building. Both will be single-story and metal-clad, consistent with the industrial character of other structures at the Port. They are small structures, ancillary to the loading operations, and are significantly smaller than other existing and planned structures in the vicinity, such as the FarWest Steel facility approximately 1,900 feet north of the shoreline and the planned bulk potash handling facility approximately 2,000 feet to the west at Terminal 5. Therefore, compared to existing surrounding industrial structures, these structures in shoreline jurisdiction will be inconspicuous and will not dominate views of the shoreline at Terminal 4.

2. *Building surfaces on or adjacent to the water shall employ materials that minimize reflected light.*

   Response: The only buildings proposed within shoreline jurisdiction are the control room/E-house and MCC buildings which will be located near berths 13 and 14 and will support the unloading operations at the marine terminal. These structures will include metal clad siding and will be painted in gray or earth tones to minimize the light reflected towards offsite locations.

3. *Façade treatments, mechanical equipment and windows in structures taller than two (2) stories, shall be designed and arranged to prevent bird collisions using the best available technology. Single-family residential structures are exempt from this provision.*

   Response: Only single-story structures are proposed within shoreline jurisdiction. Mechanical equipment, including the stack associated with the MVCU, the crane(s) on the dock, and the lighting towers, may be 45 feet in height or taller. Because the project will not employ reflective surfaces, large moving surfaces, solid red lights, guy wires, lattice towers, or other elements that present a hazard of bird strikes, no specific design measures are necessary to prevent bird strikes.

4. *Interior and exterior structure lighting shall be designed, shielded, and operated to: a. Avoid illuminating nearby properties or public areas; b. Prevent glare on adjacent properties, public areas or roadways; c. Prevent land and water traffic hazards; and d. Reduce night sky effects to avoid impacts to fish and wildlife.*

   Response: Lighting within shoreline jurisdiction will be necessary for safe operation at night. In Area 400 within shoreline jurisdiction, four light poles are proposed to be located on the dock, with an additional four light poles along the causeway and two light poles located along the roadway in front of the dock area on either side of the causeway. In addition, two lighting fixtures will be located at the maintenance parking stalls near the MCC and the Control Room. The lighting fixtures will be shielded and directed toward work areas and no off-site glare impacts are expected to result from their use. Lighting on the proposed site will be designed to ensure compliance with VMC 20.935.030.D, which prohibits off-site glare impacts from direct or reflected light sources.

5. *Accessory uses, including parking, shall be located as far landward as possible while still serving their intended purposes.*

   Response: The project will restripe an existing parking area at berths 13 and 14 within the shoreline area. This parking area is landward of the OHWM and, because of the limited depth of the area around berths 13 and 14 and the existing access road and stormwater facilities, the parking area cannot be located further from the shoreline.

4.9 Vegetation Conservation (SMP Section 5.7)

1. *Existing native vegetation within shoreline jurisdiction shall be retained and allowed to grow naturally in the riparian area.*

Response: Previous development and remediation activities filled, paved, and/or capped most of the project site. As a result, vegetation on the site is primarily limited to grasses, non-native weedy herbaceous vegetation, and shrubs located between the top of the bank of the Columbia River and the riprap at the water's edge. No removal of native vegetation is proposed.

2. *Removal of native vegetation outside the riparian area shall be avoided. Where removal of native vegetation cannot be avoided, it shall be minimized and mitigated to result in no net loss of shoreline ecological functions. Lost functions may be replaced by enhancing other functions provided that no net loss in overall functions is demonstrated and habitat connectivity is maintained. Mitigation shall be provided consistent with an approved mitigation plan. See Chapter 5A, 20.740.030(B)(1)(f) on maintaining fire-defensible space.*

   Response: No native vegetation will be removed within shoreline jurisdiction.

3. *If non-native vegetation is removed, it shall be replaced with native vegetation within the shoreline jurisdiction.*

   Response: Approximately 7,500 square feet of vegetation will be removed from areas near the stormwater facilities north of berths 13 and 14 to accommodate the pipelines, MVCU, and driveway. These areas will be covered by development and replanting is not feasible. If areas are cleared outside the limits of the new impervious surfaces, they will be planted with an appropriate groundcover native seed mix.

4. *Development shall be located to avoid clearing and grading impacts to more mature or multi-storied plant communities and to retain habitat connectivity.*

   Response: There are no mature or multi-storied plant communities within the shoreline jurisdiction that will be disturbed by the project.

5. *Vegetation (such as a mature stand of trees) that cannot be replaced or restored within twenty (20) years shall be preserved.*

   Response: No mature vegetation within the shoreline jurisdiction will be cleared with the proposed project.

6. *Maintaining vegetated riparian areas to protect shoreline stability and shoreline ecological functions takes precedence over vegetation clearing to preserve or create views.*

   Response: No vegetation will be cleared within the shoreline area to preserve or create views.

4.10 Visual Access (SMP Section 5.8.1)

1. *Visual access shall be maintained, enhanced, and preserved as appropriate on shoreline street-ends, public utility rights-of-way above and below the ordinary high water mark, and other view corridors.*

   Response: Visual impacts are assessed in section 4.2 of the Application for Site Certification. None of the proposed shoreline elements will occur at a shoreline street end or along a public right of way that provides a view corridor through the site.

   The SMP defines view corridors as follows:

   > *…portion of a viewshed, often between structures or along thoroughfares. View corridors may or may not be specifically identified and reserved through development regulations for the purpose of retaining the ability of the public to see a particular object (such as a mountain or body of water) or a landscape within a context that fosters appreciation of its aesthetic value.*

   As section 4.2.3 of the Application for Site Certification shows, the shoreline areas of the project site do not adjoin existing residential uses or neighborhoods and are not part of their viewshed. Residential areas, including street ends and public parks, that are located approximately 1.75 miles or more northeast of the project site have general territorial views of the Port. The distance and intervening trees and buildings prohibit direct views of berths 13 and 14. While the crane on the existing dock may be visible from certain areas, it will occupy a very small portion of the viewshed and will be smaller in scale than existing cranes and shiploading features currently developed along the shoreline.

2. *Development on or over the water shall be constructed to avoid interference with views from surrounding properties to the adjoining shoreline and adjoining waters to the extent practical.*

   Response: The surrounding properties are in current industrial use and the over-water structures are not located within a scenic vista from adjacent properties.

3. *Maintaining vegetated riparian areas to protect shoreline stability and shoreline ecological functions takes precedence over vegetation clearing to preserve or create views.*

   Response: No vegetation will be cleared to preserve or create views.

4.11 Water Quality and Quantity (SMP Section 5.9)

1. *The location, design, construction, and management of all shoreline uses and activities shall protect the quality and quantity of surface and ground water adjacent to the site.*

   Response: Runoff from any new and/or reconstructed areas of impervious surface within shoreline jurisdiction will be collected via catch basins, routed through a stormwater quality facility designed to comply with VMC 14.25, and ultimately conveyed to the Columbia River via existing Port outfalls. Stormwater management facilities will be designed to meet all necessary regulatory requirements to protect the quantity and quality of surface- and groundwater on and adjacent to the site. Details regarding the proposed stormwater system are contained in section 2.11 of the Application for Site Certification.

2. *All shoreline development shall comply with the applicable requirements of the VMC Chapter 14.24, Erosion Prevention & Sedimentation Control; 14.25, Stormwater Control; and 14.26, Water Resources Protection.*

3. *Best management practices [BMPs] for control of erosion and sedimentation shall be implemented for all shoreline development.*

4. *Potentially harmful materials, including but not limited to oil, chemicals, tires, or hazardous materials, shall not be allowed to enter any body of water or wetland, or to be discharged onto the land except in accordance with VMC 14.26. Potentially harmful materials shall be maintained in safe and leak-proof containers.*

   Response: The project will be constructed using appropriate BMPs, as described in section 2.11 of the Application for Site Certification, to manage potential erosion or turbidity concerns consistent with permits issued for the project and the requirements of VMC Chapter 14. Design and operation measures to minimize and respond to inadvertent releases of harmful materials are described in section 2.10 of the Application for Site Certification.

5. *Herbicides, fungicides, fertilizers, and pesticides shall not be applied within twenty-five (25) feet of a waterbody, except by a qualified professional in accordance with state and federal laws. Further, pesticides subject to the final ruling in Washington Toxics Coalition, et al., v. EPA shall not be applied within sixty (60) feet for*

ground applications or within three hundred (300) feet for aerial applications of the subject water bodies and shall be applied by a qualified professional in accordance with state and federal law.

Response: The construction of the proposed project does not involve the application of fungicides, fertilizers, and/or pesticides. If, in the operation of the facility, the management of invasive vegetation is required, it will be conducted in conformance with these provisions.

6. *Any structure or feature in the Aquatic shoreline designation shall be constructed and/or maintained with materials that will not adversely affect water quality or aquatic plants or animals. Materials used for decking or other structural components shall be approved by applicable state agencies for contact with water to avoid discharge of pollutants.*

Response: Additional steel piles and concrete decking will be necessary for structural improvements at the dock. WAC 220-11-060 contains technical provisions for dock construction established by WDFW. These provisions address the use of treated wood decking and structural elements. No wood elements are proposed consistent with these provisions.

7. *Conveyance of any substance not composed entirely of surface and stormwater directly to water resources shall be in accordance with VMC 14.26.*

Response: The project does not propose to convey anything other than stormwater to the Columbia River. Process water from the operation of the facility will be conveyed to the City sanitary sewer system for treatment and discharge.

4.12 SMP Chapter 5A Critical Areas Regulations

For this project, fish and wildlife habitat conservation areas, frequently flooded areas, and geologic hazard areas fall within the shoreline jurisdiction and are subject to compliance with the critical area standards contained in Chapter 5A of the SMP.

VMC 20.740.060 Approval Criteria

Any activity or development subject to this chapter, unless otherwise provided for in this chapter, shall be reviewed and approved, approved with conditions, or denied based on the proposal's ability to comply with all of the following criteria. The City may condition the proposed activity as necessary to mitigate impacts to critical areas and their buffers and to conform to the standards required by this chapter. Activities shall protect the functions of the critical areas and buffers on the site. Mitigation shall occur in the following order of priority:

A. *Avoid Impacts. The Applicant shall first avoid all impacts that degrade the functions and values of (a) critical area(s) by not taking a certain action or parts of an action. This may necessitate a redesign of the proposal.*

B. *Minimize Impacts. The applicant shall minimize the impacts of the activity by limiting the degree or magnitude of the action and its implementation by using appropriate technology or by taking affirmative steps to avoid or reduce the impacts. The applicant shall seek to minimize the fragmentation of the resource to the greatest extent possible.*

C. *Rectify Impacts. The applicant shall rectify the impacts by repairing, rehabilitating, or restoring the affected environment.*

D. *Reduce Impacts. The applicant shall reduce or eliminate the impacts over time by preservation and maintenance operations.*

E. *Compensatory Mitigation. The applicant shall compensate for the impacts by replacing, enhancing, or providing substitute resources or environments. The compensatory mitigation shall be designed to achieve the functions as soon as practicable.*

F. *Monitor Impacts and Mitigation. The applicant shall monitor the impacts and the compensation projects and take appropriate corrective measures.*

Response:

Fish and Wildlife Habitat Conservation Area – Impacts to fish and wildlife habitat conservation areas have been avoided, to a great extent, by locating the proposed facility at an existing marine terminal, thus forestalling many of the direct environmental effects that could be expected from a new in-water facility. The only project elements located in these conservation areas are the proposed dock improvements located waterward of the top of the bank. These modifications are the minimum necessary to obtain an optimal mooring configuration and to meet current seismic standards. To offset the additional piles and overwater structure, the project will remove existing piles and overwater structures at the project site, Terminal 5, and Terminal 2. See section 3.4 of the Application for Site Certification for additional discussion of impacts and mitigation to the aquatic habitat.

Frequently Flooded Areas – No fill is planned for the project within the 100-year floodplain. As a consequence, the proposal will not result in a net rise in the 100-year base flood elevation. Furthermore, no structures, other than improvements to the existing dock, will be located in the 100-year floodplain. See

section 3.3.3 of the Application for Site Certification for an additional discussion of floodplain.

Geologic Hazard Areas – Clark County GIS data indicate that soils within the area of the project site have moderate-to-high potential for liquefaction or dynamic settlement during seismic events. This condition occurs over the entire site and across much of the land at the Port. Therefore, avoiding geologic hazard areas is not possible. Generally, critical area requirements for geologic hazard areas consist of compliance with the building code. A discussion of geologic hazards, risks, and mitigation is contained in sections 2.18 and 3.1 of the Application for Site Certification.

G. *Type and Location of Mitigation. Compensatory mitigation shall be in-kind and on-site, when feasible, and sufficient to maintain the functions of the critical area, and to prevent risk from a hazard posed by a critical area to a development or by a development to a critical area.*

Response: Mitigation for effects to conservation areas is described above and will occur primarily onsite through the design of the project and on other areas of the Port. Geologic hazard areas do not possess an ecological function that requires maintenance through mitigation or compensation. Rather, the geologic hazard is simply an indicator that the project must comply with building code standards regarding seismic hazards. As noted above, sections 2.18 and 3.1 of Application for Site Certification contain a discussion of geologic hazards, risks, and mitigation.

H. *In addition to mitigation, unavoidable adverse impacts may be addressed through restoration efforts.*

Response: No restoration is planned.

I. *No Net Loss. The proposal protects the critical area functions and values and results in no net loss of critical area functions and values.*

Response: The proposed project will not result in a net loss of critical area functions and values. The additional in-water construction will be offset by the removal of existing structures as shown in section 3.4 of the Application for Site Certification.

J. *Consistency with General Purposes. The proposal is consistent with the general purposes of this chapter and does not pose a significant threat to the public health, safety, or welfare on or off the development proposal site;*

Response: Per VMC Section 20.740.010 as referenced in Section 5A of the SMP, the general purposes of the critical area provisions are: (A) to designate and protect ecologically sensitive and hazardous areas (critical areas) and their functions and values, while also allowing the reasonable use of property; (B) protect critical areas (wetlands, fish and wildlife habitat conservation areas, geologically hazardous areas and frequently flooded areas); and (C) implement the goals and policies of the Vancouver Comprehensive Plan.

Consistent with these general purposes, the proposed project will use an existing port terminal and adjacent shoreline areas with limited ecological function to develop a new export facility that will expand economic opportunities in the City and the region. The shoreline development that is proposed will occur within existing developed areas and will not disturb or degrade environmentally sensitive areas. As described in section 4.3.3 of the Application for Site Certification, the development of the facility will include extensive systems to avoid, contain, respond to, and mitigate for any potential spill that could occur in the transfer of crude oil. As such, the proposal does not pose a significant threat to the public health, safety, or welfare on or off the development proposal site.

K. *Performance Standards. The proposal meets the specific performance standards of Fish and Wildlife Habitat Conservation Areas VMC 20.740.110, Frequently Flooded Areas VMC 20.740.120, Geologic Hazard Areas VMC 20.740.130, and Wetlands VMC 20.740.140, as applicable.*

Response: Per the performance standard provisions for fish and wildlife habitat conservation areas, frequently flooded areas, and geologic hazard areas, the proposed project has been designed to ensure:

- No net loss of critical area functions;
- No increase in the base flood elevation; and
- Compliance with the seismic code provisions adopted by VMC Title 17, Building and Construction.

4.13 VMC 20.740.110 Fish and Wildlife Habitat Conservation Areas

This code section identifies the following fish and wildlife habitat conservation areas:

- Habitat used by any life stage of state or federally designated endangered, threatened, and sensitive fish and wildlife species
- Priority habitats and associated priority species (PHS)
- Water bodies
- Habitats of local importance
- Riparian management areas and riparian buffers

The Columbia River, a Type 1 water/Type S shoreline of the state, supports resident and anadromous fish species. The river is designated as priority habitat by WDFW and is designated critical habitat for several salmonids and bull trout listed under the Endangered Species Act (ESA). The river also provides migration and foraging habitat for outmigrant juvenile salmonids. Marine mammals that occur in the river include California sea lions (*Zalophus californianus*), Steller sea lions (*Eumatopius jubatus*), and harbor seals (*Phoca vitulina*).

The City has established riparian management areas (RMA) and riparian buffers (RB) for the Columbia River. The RMA is defined as land 100 feet from the OHWM; the RB extends an additional 75 feet landward from the RMA along the Columbia River. However, Section 2.740.110(A)(1)(e)(A) specifies that where impervious surfaces from previous development functionally isolate the RMA and RB from the waterbody, the regulated area extends to the impervious surfaces. The Terminal 4 area was developed in 1993 and 1994 and included the installation of guardrails at the top of the bank and parking and other impervious surfaces landward of the guardrail. Therefore, the regulatory RMA/RB is limited to the riprap bank below the guardrail. At Terminal 4, vegetation within the functional portion of the riparian habitat at the site consists primarily of three small diameter black cottonwood, willows, non-native false indigo bush, and Himalayan blackberry below the top of the bank. The bank is armored with riprap, and above the riprap, there is a narrow band of ruderal grass/forb habitat. No vegetation clearance or disturbance is proposed within these limited functional areas of riparian habitat; therefore, the proposed project will not reduce the function of the fish and wildlife habitat conservation areas on the site.

4.14 VMC 20.740.120 Frequently Flooded Areas

As stated above, no net fill will occur within the 100-year floodplain of the site. Therefore, the project will not affect the 100-year base flood elevation and the proposed project is consistent with VMC 20.740.120.

4.15 VMC 20.740.130 Geologic Hazards

As previously stated, Clark County GIS data indicated moderate-to-high potential for liquefaction or dynamic settlement within the project site area. The project will incorporate necessary structural and foundation design to comply with the seismic requirements of the building code.

4.16 Specific Shoreline Use Regulations (SMP Chapter 6)

These responses illustrate how the project complies with the applicable specific shoreline use regulations described in Chapter 6 of the SMP.

4.16.1 Shoreline Use, Modification and Development Standards (SMP Table 6-1)

Table 6-1 in the SMP identifies development standards for uses in the shoreline. Shoreline uses included in the proposed project are identified in Table 3 below.

Table 3. Shoreline Uses

Shoreline Use	Proposed Uses	Aquatic	Urban: High Intensity
Industrial Use (Water-Dependent) Industrial Use (Water Dependent	• A 24- to 36-inch-diameter pipe that will connect the storage tanks to loading berths 13 and 14. • A 6-inch return line that will allow oil to return to the storage tanks in case of a shutdown of the shiploading system. • A 16- to 22-inch-diameter line that will deliver hydrocarbon vapor generated during the loading of vessels to a new MVCU. • A vapor blower staging unit that will be constructed on a concrete pad approximately 30 feet west of the Berth 13 access trestle. • Marine vapor recovery units for handling emissions for the ship holds during loading. The units will be installed on concrete slab and will include approximately 8, 25-foot-tall stacks. • An approximately 300-square-foot single-story control room / E-house that will be located immediately east of the Berth 13 access trestle. • An approximately 300-square-foot single-story MCC building that will be located approximately 250 feet west of the Berth 13 access trestle.	Permitted	Permitted

Shoreline Use	Proposed Uses	Aquatic	Urban: High Intensity
	• Improvements to the existing dock structure, including – Removal of two existing mooring dolphins – Placement of four new mooring dolphins including catwalks connecting to the existing trestle and dock. – Removal of an existing breasting dolphin and catwalks. – Replacement of the existing pile fender system with a cone fender system. – Adding more structural piles to the access trestle and dock. • Placement of a crane(s), dock safety unit, crane control building, and other equipment on the dock for shiploading.		
Setback= 0' Minimum in UHI / N/A in Aquatic	• Facilities proposed below OHWM and are in compliance as no minimum setback is required for a water-dependent facility.		
Height = Unlimited in both UHI and Aquatic	• The tallest structure within shoreline jurisdiction is 45 feet upland and approximately 60 feet above the OWHM in the aquatic zone		
Parking (Accessory Use)	• Proposed use of 11 existing parking stalls adjacent to Berth 13 in the HI designation.	N/A	Permitted
Setback= 50' in UHI and N/A in Aquatic	• The parking area is approximately 60 feet north of the OHWM of the Columbia River.		
Transportation Uses (Railroads)	• The addition of 5,600 linear feet of rail associated with the construction of two additional rail loops no closer than 100 feet from the OHWM at Terminal 5.	N/A	Permitted

4.16.2 Moorage Facilities: Docks, Piers, and Mooring Buoys (SMP Section 6.3.3.5)

1. *Mooring buoys shall be used instead of docks and piers whenever feasible.*

   Response: The proposed project will utilize the existing marine terminal at berths 13 and 14 in Area 400. Loading the vessel requires a direct ship-to-shore connection. Mooring buoys are not feasible for the type of loading and vessels needed for the proposed use as a direct connection with the shoreline is necessary for the loading process.

4. *Docks and piers for water-dependent commercial and industrial uses shall be allowed to the outer harbor line or combined U.S. Pierhead/Bulkhead line but no more than that required for the draft of the largest vessel expected to moor at the facility. These provisions are also applicable to multiple-use facilities where the majority use is water-dependent and public access can safely be provided.*

   Response: The proposed project will maintain the waterward line of the existing dock at berths 13 and 14 in Area 400 and will not extend the dock southward toward the Columbia River navigational channel.

5. *Bulk storage (non-portable storage in fixed tanks) for gasoline, oil and other petroleum products for any use or purpose is prohibited on docks and piers.*

   Response: The proposed facility will transfer crude oil from upland storage at the storage tank area at Area 300 via above- and below-ground steel transfer pipelines to the vessel loading system in Area 400. Consistent with this provision, gasoline, oil, and other petroleum products will not be stored on the dock.

4.16.3 Industrial Uses (SMP Section 6.3.6)

1. *Water-oriented industrial uses and development are preferred over nonwater oriented industrial uses and development.*

   Response: Consistent with this provision, the proposed petroleum terminal is a water-dependent facility and therefore is sited appropriately in shoreline jurisdiction.

5. *Proposed developments shall maximize the use of legally-established existing industrial facilities and avoid duplication of dock or pier facilities before expanding into undeveloped areas or building new facilities. Proposals for new industrial and port developments shall demonstrate the need for expansion into an undeveloped area.*

   Response: Consistent with this provision, the proposed petroleum terminal will use an existing industrial site and will not expand into an undeveloped area. The marine terminal will use an existing legally established dock thereby avoiding the duplication of dock and pier facilities.

6. *Proposed large-scale industrial developments or major expansions shall be consistent with an officially-adopted comprehensive scheme of harbor improvement and/or long-range port development plan.*

   Response: The proposed petroleum terminal is consistent with the Port's mission to provide economic benefit to the community through leadership, stewardship, and partnership in marine and industrial development. The project is also consistent with the Port's strategic plan goals which include the development of new rail-served marine terminals to grow economic benefits for the community. The Port has indicated that the project does not require an amendment to its adopted Comprehensive Scheme of Harbor Improvements.

4.16.4 Transportation Uses (SMP Section 6.3.13)

1. *All transportation facilities in shoreline areas shall be constructed and maintained to cause the least possible adverse impacts on the land and water environments, shall respect the natural character of the shoreline, and make every effort to preserve wildlife, aquatic life and their habitats.*

   Response: The proposed project will require the placement of two rail loops on Terminal 5, portions of which are within shoreline jurisdiction. These rail tracks will be installed landward of existing rail loops in areas that are currently impervious gravel surfaces. The site of the relocated tracks is devoid of vegetation and provides no riparian habitat function. Therefore, the proposed rail lines will not involve adverse effects to the land and water environment at Terminal 5.

2. *New or expanded surface transportation facilities not related to and necessary for the support of shoreline activities shall be located outside the shoreline jurisdiction wherever possible, or set back from the ordinary high water mark far enough to make shoreline stabilization, such as rip rap, bulkheads or jetties, unnecessary.*

ATTACHMENT K