

SEPA ENVIRONMENTAL CHECKLIST

Purpose of checklist:

Governmental agencies use this checklist to help determine whether the environmental impacts of your proposal are significant. This information is also helpful to determine if available avoidance, minimization or compensatory mitigation measures will address the probable significant impacts or if an environmental impact statement will be prepared to further analyze the proposal.

Instructions for applicants:

This environmental checklist asks you to describe some basic information about your proposal. Please answer each question accurately and carefully, to the best of your knowledge. You may need to consult with an agency specialist or private consultant for some questions. You may use "not applicable" or "does not apply" only when you can explain why it does not apply and not when the answer is unknown. You may also attach or incorporate by reference additional studies reports. Complete and accurate answers to these questions often avoid delays with the SEPA process as well as later in the decision-making process.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

Instructions for Lead Agencies:

Please adjust the format of this template as needed. Additional information may be necessary to evaluate the existing environment, all interrelated aspects of the proposal and an analysis of adverse impacts. The checklist is considered the first but not necessarily the only source of information needed to make an adequate threshold determination. Once a threshold determination is made, the lead agency is responsible for the completeness and accuracy of the checklist and other supporting documents.

Use of checklist for nonproject proposals:

For nonproject proposals (such as ordinances, regulations, plans and programs), complete the applicable parts of sections A and B plus the [SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS \(part D\)](#). Please completely answer all questions that apply and note that the words "project," "applicant," and "property or site" should be read as "proposal," "proponent," and "affected geographic area," respectively. The lead agency may exclude (for non-projects) questions in Part B - Environmental Elements –that do not contribute meaningfully to the analysis of the proposal.

A. Background

1. Name of proposed project, if applicable

Time Oil Bulk Terminal PPA – Cleanup Action

2. Name of applicant:

TOC Seattle Terminal, LLC¹

3. Address and phone number of applicant and contact person:

Applicant: TOC Seattle Terminal, LLC
Attention: Doug Ciserella
2753 W 31st Street
Chicago, IL, 60608
(773) 435-3717

Contact Person: Lynn Grochala
Floyd|Snider
601 Union Street, Suite 600
Seattle, WA 98101
(206) 292-2078

4. Date checklist prepared:

June 5, 2020

5. Agency requesting checklist:

Washington State Department of Ecology (Ecology)

6. Proposed timing or schedule (including phasing, if applicable):

Project construction is anticipated to begin in late 2020 or early 2021 with a total construction duration of up to 9 months. Groundwater monitoring would occur after project construction is complete. Monitoring would continue until sitewide groundwater achieves cleanup standards at the relevant points of compliance; this is estimated to take approximately 15 years after remedy construction.

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

The project is proposed to implement cleanup actions consistent with the Supplemental Upland Remedial Investigation and Feasibility Study (RI/FS) and a final Cleanup Action Plan to be issued by Ecology for the Time Oil Bulk Terminal PPA (the Site) after public review and comment. The project is limited to implementation of remediation and

¹ TOC Seattle Terminal, LLC, is the prospective purchaser of the former TOC Holdings Co. Seattle Terminal Properties and under an Asset Purchase Agreement (APA). The APA was executed between the owner/seller Edmund J. Wood as Chapter 7 Trustee of the Bankruptcy Estate of TOC Holdings Co. formerly known as Time Oil Company and the Cantera Development Group, LLC (buyer), effective June 2018. Cantera Development Group, LLC, will be assigning its rights under the APA to TOC Seattle Terminal, LLC, at the time of closing.

associated compliance monitoring activities during remedial implantation and post-remedy long-term monitoring and maintenance (i.e. cap). Future redevelopment activities may occur at the Site; however, the scope/scale of any future work is currently unknown and would be considered a separate project action requiring its own SEPA review. The proposed project is not dependent upon any future redevelopment and would proceed regardless of possible future activities.

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

The following environmental information has been or will be prepared specifically for the proposed project:

- *Time Oil Bulk Terminal PPA Draft Cleanup Action Plan*, Ecology, 2020.
- *Time Oil Bulk Terminal PPA Supplemental Upland Remedial Investigation/Feasibility Study*, Floyd|Snider, 2020.
- *Supplemental Upland Remedial Investigation Work Plan*, Floyd|Snider, 2019.

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.

There are currently no applications pending government approval within the Site.

10. List any government approvals or permits that will be needed for your proposal, if known.

The proposed cleanup action would be conducted subject to the requirements of an Ecology Consent Decree. Because the cleanup action would be performed under a Consent Decree, it is exempt from the procedural requirements of certain laws and all local permits (WAC 173-340-710[9][a]) but must comply with the substantive requirements of these laws and permits. The exemption from procedural requirements applies to the following:

- Washington Clean Air Act (Chapter 70.94 RCW)
- Solid Waste Management Act (Chapter 70.95 RCW)
- Hazardous Waste Management Act (Chapter 70.105 RCW)
- Construction Projects in State Waters (Chapter 77.55 RCW)
- Water Pollution Control Act (Chapter 90.48 RCW)
- Shoreline Management Act (Chapter 90.58 RCW)
- Any laws requiring or authorizing local government permits or approvals
- Any necessary federal permits will be obtained.

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not

need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.)

The proposal associated with this SEPA Environmental Checklist is for performing a cleanup action on the former Time Oil Company (TOC) Seattle Terminal property (Property) and a portion of W. Commodore Way. The Property is located along the industrial waterfront area of Salmon Bay on the Lake Washington Ship Canal (see Attachment A of this checklist) and generally consists of four separate parcels commonly identified as the Bulk Terminal parcel, ASKO parcel, East Waterfront, and West Waterfront parcel. Cleanup will be conducted on three of the four parcels (the West Waterfront parcel is not subject to the proposed cleanup action). Historical operations of the TOC Seattle Terminal and other industrial uses resulted in environmental releases of petroleum hydrocarbons, chlorinated solvents, wood preservative, and metals that have contaminated soil and groundwater on the Property and on the adjacent W. Commodore Way right-of-way (ROW).

This cleanup action is being conducted to remediate the contaminated soil and groundwater to the maximum extent practicable to meet the cleanup standards established for the Property. Due to the variability in the character, extent, and media affected by the identified contamination, the cleanup action has been broken into seven cleanup action areas to be addressed by multiple remediation technologies. Please see Attachment B of this checklist for the locations and anticipated extents of the designated cleanup action areas throughout the Property.

Performance criteria for the cleanup action include cleanup levels based on protection of exposure pathways for soil and groundwater and remediation levels for soil. Remediation levels were established for the Bulk Terminal parcel and ASKO parcel where multiple treatment technologies or actions would be necessary to achieve cleanup standards. The use of remediation levels is expected to result in removal or treatment of approximately 80 percent of the volume of contaminated soil on the Property and is expected to significantly improve groundwater quality at the Site.

The components of the cleanup action are described as follows.

Excavation

Targeted excavation would occur to remove contaminated soils. Excavation would be completed using standard equipment; after excavation is complete, clean material would be backfilled to restore the grade to pre-construction conditions. Excavation would occur on the Bulk Terminal, ASKO, and East Waterfront parcels as described below.

Bulk Terminal Property and Adjacent Right-of-Way

Excavation within the central portion of the Bulk Terminal parcel will extend to depths ranging from 5 to 10 feet below ground surface (bgs) to remove petroleum-contaminated soils. Additional excavation within the north-adjacent ROW will extend to a proposed depth of 15 feet bgs to remove petroleum- and benzene-contaminated soils. During excavation, any recoverable free product petroleum (light non-aqueous phase liquid, or LNAPL) that is encountered would be removed from the open excavation area using a vacuum truck. This work is expected to remove approximately 2,100 cubic yards (CY) of contaminated soil.

On the western portion of the Bulk Terminal parcel and extending onto the eastern portion of the ASKO parcel, contaminated soil containing petroleum hydrocarbons, benzene, and chlorinated volatile organic compounds will be excavated to a depth of 5 feet bgs. Approximately 800 CY of soil will be excavated from this area.

ASKO Property

On the northern portion of the ASKO Property, arsenic- and petroleum-contaminated soils will be excavated to a depth of 5 feet bgs. Approximately 200 CY of soil will be excavated from this area.

East Waterfront Property

On the East Waterfront parcel, soils will be excavated in three distinct areas varying in depth between 3 and 12 feet bgs, including excavation to 6 to 12 feet bgs to remove petroleum- and benzene-contaminated soil upland near the eastern property line, and excavation to 3 feet bgs to remove petroleum-contaminated soil directly landward of Salmon Bay, along the western property line. A total of approximately 1,300 CY of contaminated soil will be cumulatively excavated from these areas. An additional area directly to the west will be excavated to a depth of 1-foot bgs to remove approximately 60 CY of arsenic-contaminated surface soil.

In Situ Solidification and Stabilization

In situ solidification and stabilization (ISS) includes mixing soil with grout using excavation equipment or a large-diameter auger to create an impermeable monolith below the ground surface. Reagents will be mixed in an onsite batch plant to create a grout mixture that will be delivered via pumps to the ISS mixing area. ISS will be performed by mechanically mixing the grout with the contaminated soils in overlapping columns and/or cells to create a homogenous monolith to encapsulate and solidify contaminants. Swell material is estimated to be approximately 30 percent of the total ISS volume and may be managed through benching of the ISS treatment areas prior to ISS implementation (i.e., excavation of surface soils to allow swell management within the treatment area) and/or use of swell as backfill or grading material during redevelopment. Mixing will be conducted to the bottom treatment elevation.

ISS will be completed on the Bulk Terminal parcel to remediate petroleum- and benzene-contaminated soil and LNAPL, and on the ASKO Property to remediate chlorinated solvent-contaminated soil as described below.

Bulk Terminal Property

In an area on the northern portion of Bulk Terminal parcel adjacent to the W. Commodore Way ROW, ISS will be completed to a depth of 23 feet bgs to encapsulate LNAPL and approximately 11,300 CY of contaminated soil.

ASKO Property

In an area within the eastern half of the ASKO parcel and immediately adjacent to the southwestern property boundary, ISS will be completed to depth of 30 feet bgs to encapsulate approximately 17,200 CY of contaminated soil.

Groundwater Treatment

An interceptor trench with a permeable reactive barrier (PRB) will be constructed along the southwestern property line of the ASKO parcel to treat contaminated groundwater containing chlorinated volatile organic compounds migrating onto the Property from upgradient areas to the south. The interceptor trench will be excavated to a depth of approximately 15 feet bgs along the southern edge of the ISS monolith and will be approximately 120 feet in length and approximately 3 feet wide. The trench will be backfilled with drain rock to capture and direct groundwater to its western edge, where a PRB wall, approximately 15 feet in length and 3 feet wide, will be constructed. The PRB wall will be trenched to approximately 15 feet bgs then backfilled with granular zero-valent iron medium to passively treat groundwater as it flows through the barrier wall.

Also on the ASKO parcel, near the northern boundary adjacent to the right-of-way, a passive groundwater treatment zone will be established by injecting treatment fluids in a series of direct-push borings. The injection locations will be advanced to depths ranging from 20 to 30 feet bgs and fluids will be injected under low pressure using the direct-push equipment. Treatment fluids will consist of a trademarked colloidal biomatrix and sulfidated micro zero-valent iron mixture (Regenesis® PlumeStop, S-MicroZVI, and BDI Plus products, or equivalent) to promote a combination of in situ chemical reduction treatment and enhanced reductive dechlorination of the groundwater contaminant plume at the downgradient parcel boundary. Injection volumes and dosing will be determined during engineering and design of the cleanup action.

The performance criterion for groundwater treatment will be achievement of groundwater cleanup levels at the conditional point of compliance for the Bulk Terminal and ASKO parcels, which is the generally the centerline of W. Commodore Way. Performance will be measured by long-term monitoring as described below.

Capping and Institutional Controls

Contaminants will remain in shallow soil (to 15 feet bgs) throughout portions of the Bulk Terminal and ASKO parcels at concentrations greater than the proposed cleanup levels. Therefore, both parcels will be capped with pavement, constructed landscape areas, or buildings during redevelopment and Institutional Controls (ICs) will be implemented to protect human health and ecological receptors from direct contact with contaminated soil. ICs will include an Environmental Covenant, which will be prepared consistent with WAC 173-340-440 and RCW 64.70. After approval by Ecology, TOC Seattle Terminal, LLC, will record the Environmental Covenant with the office of the King County Recorder. The Environmental Covenant will restrict future activities and uses of the two parcels and will require monitoring and maintenance of the cap in perpetuity. ICs will also include implementation of a Soil Management Plan (SMP) that specifies soil handling and management procedures for potential future subsurface work where contaminated soil remains beneath the cap. If warranted, the SMP will also specify Best Management Practices to prevent soil erosion on the East Waterfront parcel that could potentially impact sediments in the adjacent Salmon Bay.

Post-Remedy Groundwater Monitoring

Monitored natural attenuation for groundwater is a component of the cleanup action after source soils are addressed via excavation and ISS. Performance monitoring associated with in situ treatment is also a necessary component. Therefore, post-remedy groundwater monitoring will be required. After remedy implementation, short-term groundwater monitoring will be performed on a quarterly or semi-annual basis in and/or downgradient of active treatment areas to document remedy effectiveness. Quarterly or semi-annual groundwater monitoring will be completed for a period of 2 years after completion of remedy construction, with samples collected from a monitoring well network to be established as part of remedy construction. The monitoring well network will consist of selected existing and new wells.

Long-term groundwater monitoring will also be implemented to confirm the long-term effectiveness of the cleanup action after completion. Annual groundwater confirmation monitoring will be conducted for an estimated 13-year period following short-term performance monitoring. Compliance will be determined when contaminant concentrations are less than cleanup levels throughout the East Waterfront parcel and southward to centerline of W. Commodore Way.

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.

The project site is situated on the southern shoreline of Salmon Bay, an embayment adjacent to the Hiram M. Chittenden Locks, which connect Lake Union to the Puget Sound.

The Bulk Terminal and ASKO parcels are located on the south side of W. Commodore Way. The Bulk Terminal parcel (Parcel No. 1125039050) comprises 4.10 acres and is located at 2737 W. Commodore Way. The ASKO parcel (Parcel No. 4237900405), which comprises 1.57 acres, is located at 2805 W. Commodore Way and lies adjacent to and west of the Bulk Terminal parcel.

The East Waterfront parcel is located north of the Bulk Terminal and ASKO parcels on the north side of W. Commodore Way, adjacent to Salmon Bay. The East Waterfront parcel (Parcel No. 1125039120) comprises 3.17 acres and is located at 2750 W. Commodore Way.

BNSF railroad property borders the Bulk Terminal and ASKO parcels to the south, and the Magnolia neighborhood occupies the upland area beyond the BNSF property.

The Site is located within the SW quarter of Section 11, Township 25N, Range 3E of the Willamette Meridian. The following attachments have been provided for additional detail:

Attachment A—Vicinity Map and Attachment B—Cleanup Action Plan Components

B. Environmental Elements

1. Earth

a. General description of the site:

(circle one): Flat rolling, hilly, steep slopes, mountainous, other _____

The local topography slopes gently downward to the north on the Bulk Terminal and ASKO parcels, then more steeply toward Salmon Bay on the East Waterfront parcel.

b. What is the steepest slope on the site (approximate percent slope)?

Based on the Seattle Department of Construction and Inspections (SDCI) geographic information system (GIS), the steepest slope is approximately 40 percent on both the East Waterfront and Bulk Terminal parcels, in proximity to the southern property line for each parcel.

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils.

Soils at the project site generally consist of 2 to 5 feet of surficial fill underlain by interbedded interglacial deposits presumed to be the Olympia beds or transitional deposits between the Olympia beds and Lawton Clay. Fill soils are composed of sand, silty sand, and gravel and are presumed to consist of engineered fill as well as reworked native soil. The interglacial beds are composed of low-permeability silt units interbedded with moist to wet sands and silty sands with moderate permeability.

The U.S. Department of Agriculture does not classify onsite soils as suitable for long-term commercially significant agriculture.

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

There is no known stability issue associated with sloping soil on the project site. However, properties located south of the project site, across BNSF railway property, are in a potential slide area with steep slopes (40 percent average slopes) according to City of Seattle maps.

e. Describe the purpose, type, total area, and approximate quantities and total affected area of any filling, excavation, and grading proposed. Indicate source of fill.

To implement the remedy, the project would require a total of approximately 9,800 CY of soil excavation and placement of approximately 6,700 CY of fill; this would affect a total area of approximately 51,600 square feet (SF) of the project site. All fill material would be procured from local commercial suppliers. Specific grading activities are summarized below.

- Remediation performed on portions of the Bulk Terminal parcel, ASKO parcel, East Waterfront parcel, and the adjacent ROW will require excavation of approximately 6,560 CY of soil for offsite disposal at a Subtitle D Landfill. Approximately 6,560 CY of clean soil would be imported and backfilled to restore grade. The portion of the ROW disturbed by excavation would be restored to pre-construction conditions.
- Implementation of ISS on the Bulk Terminal parcel will require excavation of approximately 1,320 CY to accommodate swell. Once excavated, grout mixture would be pumped into the limits of excavation to amend the soil. The soil and grout mixture would be mixed together and allowed to expand by approximately 20 to 30 percent and solidify, thereby encapsulating contaminants in place. Approximately 2,380 CY of soil volume would be added as a result of grout injection and expansion. Actual swell volumes and gallons of grout for injection will be determined during design.
- Implementation of ISS on the ASKO parcel will require excavation of approximately 1,700 CY to accommodate swell. A large-diameter auger or excavator bucket will be used to remove soil and mix in the grout amendment to create a monolith of overlapping columns or cells (mixing method to be determined during design). Once mixed, the soil and a grout mixture is expected to expand by approximately 20 to 30 percent and encapsulate contaminants in place. Approximately 4,300 CY of soil volume would be added as a result of grout injection and expansion. Actual swell volumes and gallons of grout for injection will be determined during design.
- Construction of the interceptor trench along the southern edge of the ISS monolith on the ASKO parcel will require excavation of approximately 200 CY. The trench will be backfilled with drain rock to 2 feet bgs, then backfilled with clean imported sand over the drain rock layer and temporarily resurfaced with a layer of gravel pending installation of a surface cap.
- Construction of the PRB wall at the western edge of the interceptor trench will require excavation of approximately 25 CY. The excavated trench for the PRB wall will be backfilled with granular zero-valent iron, then overlain with clean imported sand and temporarily resurfaced with a layer of gravel pending installation of a surface cap.
- The Bulk Terminal and ASKO parcels will be capped with impervious surfaces following the excavation and ISS activities and construction of the interceptor trench and PRB wall. Capping is anticipated to require placement of approximately 2,240 CY of impervious surfaces, which will likely be a combination of asphalt and concrete procured from local commercial sources. New buildings and landscaping will be included within this impervious footprint; however, the exact extent of these structures/landscaped areas is currently unknown and will be assessed under a separate SEPA project action when future redevelopment occurs. The anticipated quantity is based on an assumed area requiring a protective cap of approximately 180,900 SF, with impervious surfaces placed to a depth of approximately 4 inches.

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

Soil erosion may occur during ground-disturbing activities. To minimize potential erosion, the contractor will implement erosion and sediment control best management practices (BMPs) identified in a project-specific Temporary Erosion and Sediment Control (TESC) Plan.

The completed project would not increase the potential for erosion. All areas subject to ground disturbance would be backfilled and surfaced with gravel or impervious surfaces to prevent erosion; therefore, no long-term erosion impacts are anticipated as a result of implementation of the remedy.

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)? [help]

Approximately 80 percent of the Property will be covered with impervious surfaces after project construction. The amount of impervious surface on the East Waterfront parcel would remain largely unaltered after project implementation; however, the remedy requires placement of impervious surfaces over the entirety of the Bulk Terminal and ASKO parcels as a protective cap. Capping of these parcels will be constructed in conjunction with redevelopment of the Property following remedy implementation, and will likely include a combination of pavement, constructed landscape areas, and buildings.

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:

The proposed project includes the following erosion/earth impact control measures, which will be implemented during construction:

- A project-specific TESC Plan would be developed and its erosion and sediment control BMPs will be implemented by the contractor.
- Areas of the Site subject to deep excavations would be shored to prevent collapse of the excavated pits.

The proposed project would not result in long-term erosion impacts. This would be ensured through placement of gravel surfacing over areas subject to ground disturbance on the East Waterfront parcel. Gravel surfacing would prevent the migration of soils post-construction. In addition, a Soil Management Plan will be implemented for the Property that will include provisions for post-construction BMPs on the East Waterfront parcel to prevent soil erosion to sediments in Salmon Bay, if warranted.

Post-construction erosion potential would be eliminated on the Bulk Terminal and ASKO parcels because they would be covered entirely with impervious surfaces. No other long-term earth impacts are anticipated to occur, and no other impact minimization/mitigation measures are proposed.

2. Air

a. What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known.

Emissions Associated with Remedy Implementation and Ongoing Monitoring/
Maintenance

During implementation of the remedy, heavy equipment and vehicle traffic may generate particle pollution from dust and emissions that includes nitrogen oxides (NO_x), carbon monoxide (CO), and PM10 (dust). In addition, excavation and removal of LNAPL could result in the release of volatile organic compounds as contaminated soil and groundwater are removed. The release of pollution and volatile organic compounds would be temporary, limited to the duration of construction, and localized at the Property.

Ongoing monitoring of the implemented remedy would be a source of emissions produced by the completed project. Monitoring would require periodic vehicle trips to and from the Property until cleanup levels are achieved. Ecology would also periodically visit the Property to inspect the constructed remedy to verify that it remains effective. The vehicle trips produced by these activities would not result in a significant source of air emissions.

Existing Air Impacts to Be Controlled by the Proposed Remedy

Existing contaminants in groundwater and soil at the Property currently have the potential to migrate through natural mechanisms that may result in exposure to human and ecological receptors. The primary potential migration pathways are the following:

- Soil to Air: Volatile contaminants in soil have the potential to volatilize to the vapor phase.
- Groundwater to Air: Volatile contaminants in shallow groundwater have the potential to volatilize to the vapor phase.

Volatile contaminants in shallow soil and groundwater have the potential to volatilize and rise through the soil column and discharge into indoor air. The proposed project would not exacerbate this condition; rather, the proposed remedy seeks to remove or immobilize the contaminated media that could cause air impacts.

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

There are no offsite sources of emissions or odor that would affect the proposed project.

c. Proposed measures to reduce or control emissions or other impacts to air, if any:

Air Impact and Emissions Reduction/Control Measures During Project Construction

During construction, TESC measures will be implemented by the contractor to minimize fugitive dust release. Contractor staging/laydown will also be located in proximity to the job site and, where possible, vehicles will not be allowed to idle; these measures would reduce vehicle emissions.

To protect workers during the LNAPL removal process, air monitoring would be conducted to alert workers of potentially harmful levels of volatile organic compounds released when handling excavated material. If exceedances are detected during air monitoring, workers will don the appropriate personal protective equipment or implement engineering controls

to control exposure to potentially harmful vapors. Air monitoring will also determine whether volatile emissions have the potential to migrate off site, and if so, engineering controls will be implemented until monitoring indicates that offsite migration is not occurring.

Measures to Control Post-Construction Air Impacts

The potential for vapor intrusion from remaining subsurface contaminants pertains only to enclosed spaces and structures. The proposed remedy requires assessment of potential vapor intrusion risks for new structures/buildings to be constructed post-remedy. The requirement for vapor intrusion assessment would be informed by the location and nature of proposed new buildings and structures and post-remedy soil and groundwater concentrations. Any required mitigation resulting from the vapor intrusion assessment would be determined on a case-by-case basis and could require implementation of further measures to address the vapor intrusion pathway.

3. Water

a. Surface Water:

- 1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.**

The northernmost portion of the Property (East Waterfront parcel) lies adjacent to Salmon Bay. Salmon Bay is hydraulically connected to Lake Union to the east and the Puget Sound to the west.

- 2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.**

Yes. Work would be required adjacent to Salmon Bay. All actions included in the remedy for the East Waterfront parcel would occur entirely within 200 feet of Salmon Bay. Remedy actions proposed for this parcel include excavation of contaminated material; excavated areas would be backfilled and restored with a gravel surface until future redevelopment of the property occurs. Please see the project description for more details. A figure depicting actions proposed by the remedy is included with this checklist as Attachment B.

- 3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.**

The proposed project does not include work below the ordinary high water mark of Salmon Bay. No fill or dredge material will be placed into or removed from surface water.

- 4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.**

The proposed project would not require surface water withdrawals or diversions.

- 5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.**

The Site is not located within a designated 100-year floodplain.

- 6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.**

The proposed project would not discharge waste materials to surface waters.

b. Ground Water:

- 1) Will groundwater be withdrawn from a well for drinking water or other purposes? If so, give a general description of the well, proposed uses and approximate quantities withdrawn from the well. Will water be discharged to groundwater? Give general description, purpose, and approximate quantities if known.**

Project Construction

Limited dewatering is anticipated to be required during excavation activities in the public ROW and on the Bulk Terminal parcel. Excavation in the ROW is anticipated to extend down to approximately 15 feet bgs; the water table in this area is approximately 12 to 15 feet bgs. Therefore, groundwater entering the excavation area would need to be withdrawn to complete the excavation work. Water removed from the excavation area would be treated on site and discharged to sanitary sewer under an appropriate permit. Construction-related groundwater withdrawal quantities are currently unknown.

Ongoing Monitoring Post-Remedy Implementation

Ongoing groundwater monitoring (which requires minor groundwater withdrawal) would be conducted following remedy implementation. Although the exact amount of groundwater withdrawn from groundwater wells is unknown, the volume of groundwater withdrawn would be negligible. Discharges to groundwater would not occur. Groundwater would not be withdrawn for drinking water use.

- 2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals. . . ; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.**

The proposed project would not discharge waste material into the ground.

c. Water runoff (including stormwater):

- 1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.**

The Property is currently subject to stormwater runoff. Within the Property, stormwater from roof runoff and paved surfaces is directed to existing treatment systems and storm sewers. In unpaved areas of the Property, stormwater infiltrates through gravel or vegetated areas. New or altered stormwater management facilities would be required throughout the upland portion of the Property to accommodate the change in site conditions after redevelopment construction; these facilities will be designed in accordance with the City of Seattle Stormwater Manual and will be reviewed/permited by the City of Seattle prior to redevelopment construction.

2) Could waste materials enter ground or surface waters? If so, generally describe.

During construction, it is possible that waste materials could enter surface waters. Although proper stormwater and erosion controls measures will be installed by the contractor prior to initiation of ground-disturbing activities, there is the potential for small amounts of material to flow off site toward surface waters despite these preventive measures. See response to question B.3.d for description of measures to be implemented to reduce the potential for materials to discharge to surface waters. Waste materials generated by the completed project are not anticipated to enter groundwater or surface waters.

3) Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe.

The proposed project could affect drainage patterns within the Property because impervious surface quantities would increase; however, offsite drainage pattern impacts are not anticipated. New stormwater infrastructure would be installed in the upland parcels when the impervious surface cap is placed concurrent with Property redevelopment. Stormwater infrastructure will be designed in accordance with the City of Seattle Stormwater Manual and will be reviewed and approved before redevelopment construction.

d. Proposed measures to reduce or control surface, ground, and runoff water, and drainage pattern impacts, if any:

A project-specific TESC Plan will be prepared; the BMPs outlined in this plan will be implemented by the contractor to reduce or control stormwater runoff during construction. The proposed project would not result in long-term runoff impacts that warrant additional control measures.

4. Plants

a. Check the types of vegetation found on the site:

deciduous tree: alder, maple, aspen, other

evergreen tree: fir, cedar, pine, other

shrubs

grass

pasture

- crop or grain
- Orchards, vineyards or other permanent crops.
- wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other
- water plants: water lily, eelgrass, milfoil, other
- other types of vegetation

On the Bulk Terminal and ASKO parcels, the ground surface is composed primarily of pavement or crushed gravel, with minor vegetated areas. Vegetation on these parcels is unmaintained and composed primarily of turf grass and invasive and pioneering species including lichens/mosses, blackberries, sedges, Scotch broom, tansy ragwort, thistles, and poplar seedlings. On the East Waterfront parcel, the vegetated areas comprise larger portions of the land area. The type of vegetation on the East Waterfront parcel is similar to the upland parcels and also unmaintained.

b. What kind and amount of vegetation will be removed or altered?

Limited amounts of shrubs and grasses would be removed from the Property; no significant vegetation or trees would be removed.

c. List threatened and endangered species known to be on or near the site.

There are no known plant species that are listed as threatened or endangered on or near the Property.

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

The proposed remedy does not include a landscaping or vegetation preservation/enhancement component; however, existing vegetation on the East Waterfront parcel will be maintained to the extent practicable as an erosion control measure following remedy construction prior to redevelopment.

e. List all noxious weeds and invasive species known to be on or near the site.

Scotch broom (*Cytisus scoparius*) and Himalayan blackberry (*Rubus armeniacus*) are known to occur on and near the Site.

5. Animals

a. List any birds and other animals which have been observed on or near the site or are known to be on or near the site. Examples include:

birds: hawk, heron, eagle, songbirds, other: Seabirds
 mammals: deer, bear, elk, beaver, other: Mammals adapted to urban habitats
 fish: bass, salmon, trout, herring, shellfish, other _____

The Property is generally developed, with limited functional habitat for birds or mammals; birds and mammals that utilize the Property are likely adapted to more urban

environments. Salmon Bay, which lies adjacent to the northern boundary of the Property, is utilized by resident and migrating aquatic species.

b. List any threatened and endangered species known to be on or near the site.

The following threatened and/or endangered species may occur in Salmon Bay, located north of the project site:

Common Name	Scientific Name	Federal ESA Listing Status
Chinook salmon	<i>Oncorhynchus tshawytscha</i>	Threatened
Coho salmon	<i>Oncorhynchus kisutch</i>	Candidate
Steelhead	<i>Oncorhynchus mykiss</i>	Threatened
Bull trout	<i>Salvelinus confluentus</i>	Threatened
Marbled murrelet	<i>Brachyramphus marmoratus</i>	Threatened

c. Is the site part of a migration route? If so, explain.

Yes. The general project area is located within the Pacific Flyway, a broad migratory corridor that extends from Alaska to South America, which is used by waterfowl, eagles, hawks, falcons, songbirds, and shorebirds. The project site is also located adjacent to Salmon Bay and in the vicinity of the Puget Sound, which is a migratory corridor for many aquatic species.

d. Proposed measures to preserve or enhance wildlife, if any:

The City of Seattle (in coordination with the Washington Department of Fish and Wildlife [WDFW]) has designated a Great Blue Heron Management Area west of the shoreline portion of the Property, within the Kiwanis Ravine. The Property is not within the Great Blue Heron Management Area, which includes a 197-foot year-round protection buffer and 300- and 500-foot seasonal buffers to protect nesting colonies of great blue heron. While the Property is not located within the year-round protection buffer, it may be located within the seasonal pre-nesting area buffers. The pre-nesting area will be confirmed by a consulting biologist as part of the project planning and design. Existing regulations provide that the pre-nesting area should not exceed ambient noise levels during pre-nesting season, which is from January 1 to March 31. While noise reduction measures may be implemented to reduce noise disturbance, adverse impacts to great blue heron habitat is not anticipated given the industrial/developed nature of the Property and the remedy's avoidance of tree removal.

No other potential adverse impacts to animal species are anticipated; moreover, implementation of the proposed project would result in a net benefit to animals and their environs through removal of contaminated material.

e. List any invasive animal species known to be on or near the site.

King County lists the European starling, house sparrow, Eastern gray squirrel, and fox squirrel as terrestrial invasive species that could occur in the general area. (<http://www.kingcounty.gov/services/environment/animals-and-plants/biodiversity/threats/Invasives.aspx>).

6. Energy and Natural Resources

- a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.**

The proposed project consists of remediating contamination on the Property, during which some technological components will require the temporary use of portable generators to power associated mixing and pumping equipment. No energy or natural resources are required once the remedy has been implemented.

- b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.**

The proposed project does not include construction of vertical elements that could preclude adjacent properties from their ability to collect/use solar energy.

- c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:**

The proposed project would not result in energy or natural resources impacts; therefore, no energy conservation or control measures are required or proposed.

7. Environmental Health

- a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.**

Yes. The purpose of the proposed project is to implement a cleanup action in order to remediate soil and groundwater contamination to prescribed cleanup levels. In the short-term, project construction would require excavation/handling of contaminated material; this would temporarily increase construction personnel's potential for exposure to environmental health hazards. In addition, excavation during project construction would require use of heavy machinery that requires fossil fuels for operation; use of this machinery could result in an increase in spill or fire potential.

Long-term, performance/confirmation monitoring would be used to confirm the long-term effectiveness of the cleanup action after completion of the remedy. Performance/confirmation monitoring would include long-term monitoring to document that cleanup levels have been attained. Monitoring events would require personnel to handle/contact potentially contaminated material/equipment.

Short- and long-term environmental health concerns resulting from the proposed project would be controlled or mitigated to the maximum extent practicable, as discussed in the response to question B.7.a.5.

- 1) Describe any known or possible contamination at the site from present or past uses.**

Past industrial operations at the project site have resulted in contaminated soil and groundwater. Chemicals of concern identified within soil and groundwater include arsenic and other heavy metals, gasoline-range organics (GRO), diesel- and oil-range organics (DRO and ORO), benzene and other petroleum-related volatile organic compounds, chlorinated solvents including trichloroethene (TCE) and vinyl chloride (groundwater only), and pentachlorophenol.

2) Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity.

There are no known hazardous chemicals/conditions present on the Property beyond the contaminated material that the proposed project would remediate. Past uses of the Property utilized ASTs and infrastructure (including an underground pipeline utilidor) for transloading of petroleum products; however, all tanks/infrastructure were removed between 2006 and 2012.

3) Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project.

Contaminated soil would be excavated and transferred by truck off site for disposal at a Subtitle D Landfill. Contaminated soil that has been excavated would be temporarily stockpiled on the Property until it could be loaded into trucks for transport. Soil that is contaminated with TCE that is considered hazardous waste will be treated in situ using ISS, and the treated soil (monolith) will remain in place in perpetuity.

After implementation of the remedy, no toxic or hazardous chemicals are anticipated to be stored, used, or produced as part of this cleanup action.

4) Describe special emergency services that might be required.

The proposed project would not require special emergency services. The City of Seattle Fire Department or medical services will be called if there is an emergency. Prior notice would be provided to the City of Seattle Fire Department so they are informed of the project scope and can be prepared in the event of an emergency.

5) Proposed measures to reduce or control environmental health hazards, if any:

The purpose of the proposed project is to remediate the Property to prescriptive cleanup levels by removing environmental health hazards (contamination). During construction, soil would be excavated, managed, and disposed of in a manner approved by Ecology. Removal of contaminated soil to proposed cleanup levels or remediation levels is anticipated to bring groundwater into compliance with proposed cleanup levels within a predicted restoration time frame of 15 years. Implementation of the remedy would be conducted by a contractor who will be responsible for implementing BMPs that ensure that contaminated media do not inadvertently migrate off site via erosion or stormwater.

Because vapor intrusion is currently and could remain a risk (until cleanup levels are obtained) in enclosed spaces/structures, a vapor monitoring program would be

implemented. The requirement for vapor intrusion monitoring would be informed by the location and nature of new buildings and structures and post-remedy soil and groundwater concentrations. Any required mitigation resulting from the vapor intrusion monitoring would be determined on a case-by-case basis and could require implementation of further measures to achieve prescriptive cleanup levels.

A protective cap will be installed over areas where contamination remains in the ground to prevent direct contact exposures following implementation of the remedy.

The overall cleanup action, including construction and long-term monitoring, will be implemented in accordance with state and federal regulations governing the safety of workers implementing remedies at hazardous waste sites. These consist of the following:

- Health and Safety for Hazardous Waste Operations and Emergency Response (HAZWOPER), Chapter 296-62 WAC, and Health and Safety, 29 CFR 1901.120
- Occupational Safety and Health Act (OSHA)
- Washington Industrial Safety and Health Act (WISHA), Chapters 296-62 and 296-155 WAC; Chapter 49.17 RCW

b. Noise

1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?

This cleanup action would not be affected by existing noise sources.

2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.

Short-term noise would result from project construction, which would include but not be limited to use of heavy machinery, back-up alarms, and truck/personal vehicle traffic. This noise would be temporary, would generally occur during normal working hours, and would be consistent with the industrial zoning/nature of the area surrounding the Property.

The proposed project would not produce noise after construction is complete.

3) Proposed measures to reduce or control noise impacts, if any:

Construction equipment would be muffled in accordance with the applicable laws. Construction work would be conducted in conformance with the maximum permissible noise limitations prescribed in SMC Chapter 25.08.

If it is determined that noise restrictions apply to the project due to the presence of the seasonal buffer for the great blue heron, noise reduction measures, if any, may need to be implemented. This could include restricting construction activities during months when pre-nesting occurs or granting authorization to construct during the pre-nesting season.

8. Land and Shoreline Use

a. What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe.

Land uses within the Property were/are predominately industrial or commercial in nature, and specifically include the following:

The Bulk Terminal parcel is currently occupied by a vacant office building (former TOC office), several sheds that were used to house stormwater and groundwater treatment systems during and after TOC operations, and a marine retail facility and warehouse space. Marine Service & Supply, a commercial fishing marine supply store, currently leases a 1940s-era building located on the southeast corner of the ASKO parcel for retail sales, storage, and equipment repair; the eastern portion of the warehouse building extends onto the Bulk Terminal parcel. The ASKO parcel is also occupied by a vacant warehouse. The upland portion of the East Waterfront parcel is currently occupied by vacant buildings, including a storage building, a garage/shed, and a former laboratory. The West Waterfront parcel is currently leased by Lockhaven Marina for houseboat moorage.

Land uses on properties adjacent to the project include industrial properties to the east (Maritime Industrial Center), the BNSF railway to the south, Salmon Bay to the north, and residential/commercial (Lockhaven Apartments and Marina and a multi-tenant warehouse building currently owned by Century Twenty-One Promotions) to the west.

The proposed project will not affect current land uses on nearby or adjacent properties.

b. Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses as a result of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use?

Historical records indicate that the ASKO parcel was first developed for agricultural and residential use in 1905. The extent to which it was used for agricultural purposes before TOC's industrial operations began is unknown. There are no other known past or present farm or forest lands on or near the Property.

1) Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversized equipment access, the application of pesticides, tilling, and harvesting? If so, how:

The proposed project would not affect or be affected by normal business operations of working farms or forest lands because there are no designated agricultural or forest lands in the City of Seattle.

c. Describe any structures on the site.

As stated in response to question B.8.a, the Bulk Terminal parcel is currently occupied by a vacant office building, several sheds that were used to house stormwater and groundwater treatment systems, and a marine retail facility and warehouse space. Marine Service & Supply, a commercial fishing marine supply store, currently leases a

1940s-era building located on the southeast corner of the ASKO parcel for retail sales, storage, and equipment repair; the eastern portion of the warehouse building extends onto the Bulk Terminal parcel. The ASKO parcel is also occupied by a vacant warehouse. The East Waterfront parcel is currently occupied by vacant buildings, including a storage building, a garage/shed, a former laboratory, and a pier that extends into Salmon Bay.

d. Will any structures be demolished? If so, what?

Yes. The proposed project would require demolition of all existing structures within the Property boundary to facilitate remediation of contaminated material. This includes the former TOC office building and sheds on the Bulk Terminal parcel, all vacant storage buildings on the East Waterfront parcel, the former machine shop on the ASKO parcel, the marine retail facility currently leased to Marine Service & Supply situated on the Bulk Terminal and ASKO parcels, and a portion of the improved shoulder associated with eastbound lane of W. Commodore Way. The affected portion of the ROW will be restored once excavation is complete; this would occur directly north of the Bulk Terminal parcel. Additional demolition activities may be required; this would be determined during active excavation as the full extent of contamination is determined.

Several shipping containers on the ASKO parcel would also be removed to accommodate excavation; however, these non-permanent structures would not require demolition for removal.

e. What is the current zoning classification of the site?

The Property has mixed industrial zoning designations. The southern parcels (Bulk Terminal and ASKO) are zoned by the City of Seattle as IG1, and the majority of the northern parcels (East Waterfront and West Waterfront parcels) are zoned IG2. A small area of the western portion of the West Waterfront parcel is zoned IB, which is an industrial buffer/transition zone between industrial areas and adjacent residential properties located further to the west.

f. What is the current comprehensive plan designation of the site?

The City of Seattle 2035 Comprehensive Plan designates the properties as part of the Ballard Interbay Northend Manufacturing & Industrial Center.

g. If applicable, what is the current shoreline master program designation of the site?

The East and West Waterfront parcels are located within the Urban Maritime Shoreline Environment.

h. Has any part of the site been classified as a critical area by the city or county? If so, specify.

The City of Seattle SDCI GIS application maps the East Waterfront and Bulk Terminal parcels with 40 percent average slopes (Steep Slope environmentally critical area). In addition, the ASKO, Bulk Terminal, and portions of the East Waterfront parcels are mapped within a Wildlife Habitat Conservation Area for great blue heron.

i. Approximately how many people would reside or work in the completed project?

The completed project would not directly provide housing or employment opportunities.

j. Approximately how many people would the completed project displace?

Buildings demolished as part of the proposed project are vacant, except for the marine retail facility currently leased to Marine Services & Supply. While the building leased to Marine Services & Supply would be demolished to implement the proposed remedy, the proposed project would not preclude this business from re-leasing building space available as a result from future redevelopment of the Property.

k. Proposed measures to avoid or reduce displacement impacts, if any:

The proposed project would not result in displacement impacts; therefore, no displacement avoidance or reduction measures are required or proposed.

l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

The proposed project is limited to remediation of contaminated material and long-term monitoring of the remedy. These project activities would have no long-term adverse effect on existing or projected land uses. However, future buildings/structures could be required to implement vapor intrusion controls if warranted after construction of the remedy. Although this measure would not affect existing land uses, or preclude future land uses from being established at the Property, it could potentially affect building/structure design associated with the land uses.

m. Proposed measures to reduce or control impacts to agricultural and forest lands of long-term commercial significance, if any:

The proposed project would not result in adverse impacts to agricultural or forest lands of long-term commercial significance; therefore, impact reduction or control measures are not required or proposed.

9. Housing

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

The proposed project does not include construction of new housing.

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

The proposed project would not eliminate existing housing.

c. Proposed measures to reduce or control housing impacts, if any:

No housing impacts would occur; therefore, no impact reduction or control measures are required or proposed.

10. Aesthetics

- a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?**

No vertical structures/buildings are proposed as part of this project.

- b. What views in the immediate vicinity would be altered or obstructed?**

During construction, existing views would be temporarily altered as additional construction vehicles/equipment would be located and used at the Property. After construction, the Bulk Terminal and ASKO parcels would be covered in impervious surfaces until future redevelopment would occur. Although these activities would result in an alteration to existing views, this change would not constitute a significant adverse impact as project construction and the completed conditions would occur on industrial-zoned land where these types of views are common.

- c. Proposed measures to reduce or control aesthetic impacts, if any:**

No aesthetic impacts would occur; therefore, impact reduction or control measures are not included in the proposed project.

11. Light and Glare

- a. What type of light or glare will the proposal produce? What time of day would it mainly occur?**

Project construction would temporarily result in additional personal vehicles and construction machinery/equipment compared to the existing conditions; this could result in a temporary and negligible increase of light/glare during low-light conditions, localized to the Property. In addition, temporary lighting may be utilized at night, if night work is required. Temporary construction lighting would be installed in accordance with City standards and would also result in a negligible increase in light pollution in the area. The temporary light/glare produced by the project would remain consistent with the overall nature of the industrial-zoned area around the Property.

The completed project would not result in an increase of light or glare.

- b. Could light or glare from the finished project be a safety hazard or interfere with views?**

No. The proposed project would not result in light or glare that could constitute a safety hazard or interfere with views.

- c. What existing off-site sources of light or glare may affect your proposal?**

No existing sources of light or glare would affect the proposed project.

- d. Proposed measures to reduce or control light and glare impacts, if any:**

The proposed project would not result in light or glare impacts; therefore, no light or glare reduction/control measures are included with the proposal.

12. Recreation

a. What designated and informal recreational opportunities are in the immediate vicinity?

There are no designated recreational opportunities in the immediate vicinity of the Property. Informal recreational opportunities are provided by Salmon Bay, which is used for water-based recreation activities such as boating and fishing.

b. Would the proposed project displace any existing recreational uses? If so, describe.

The proposed project would not displace any recreational uses.

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:

The proposed project would not result in recreation impacts; therefore, no recreation impact control or reduction measures are proposed.

13. Historic and Cultural Preservation

a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers? If so, specifically describe.

According to the Washington State Department of Archaeology and Historic Preservation's (DAHP's) Washington Information System for Architectural and Archaeological Records Data (WISAARD) tool, there are no buildings, structures, or sites on or near the Property that are listed or eligible for listing in national, state, or local preservation registers. The nearest eligible structure (Hiram M. Chittenden Locks) is located approximately 1,000 feet to the north of the East and West Waterfront parcels, across Salmon Bay. However, the pier structure and inner harbor area associated within the East Waterfront parcel is located within the boundary of the DAHP-designated Hiram M. Chittenden Locks and Lake Washington Ship Canal Historic District. No work would occur within this area.

b. Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources.

The WISAARD tool, managed by DAHP, was reviewed for the presence of historic and prehistoric cultural resources. While no historic or prehistoric cultural resources have been documented either on or adjacent to the Property, archaeological sites have been documented along the shoreline less than 0.5 miles from the Property. In addition, the Property is located within a high-risk area for encountering cultural resources as determined by DAHP's predictive model.

c. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation

with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc.

The WISAARD tool, managed by DAHP, was reviewed for the presence of cultural and historic resources.

- d. Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be required.**

The contractor will implement measures from a project-specific Inadvertent Discovery Plan (IDP) to protect unknown resources while ground-disturbing activities are conducted during construction. Should evidence of cultural artifacts or human remains, either historic or prehistoric, be encountered during excavation, procedures established in the site-specific IDP will be followed.

14. Transportation

- a. Identify public streets and highways serving the site or affected geographic area and describe proposed access to the existing street system. Show on site plans, if any.**

Access to the Property is provided by W. Commodore Way. The proposed project would not alter the existing ingress/egress points to this road.

- b. Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop?**

No. Public transit does not directly serve the Property. The nearest transit stop is located approximately 400 feet due south of the Property, on Gilman Ave W. Service to this transit stop is provided by King County Metro, Route 33.

- c. How many additional parking spaces would the completed project or non-project proposal have? How many would the project or proposal eliminate?**

The proposed project would not add any parking spaces. There are no formal parking spaces on the East Waterfront parcel. All formal parking on the privately owned Bulk Terminal and ASKO parcels would be temporarily displaced by implementation of the remedy; however, future redevelopment of these parcels would establish new formal parking areas.

- d. Will the proposal require any new or improvements to existing roads, streets, pedestrian, bicycle or state transportation facilities, not including driveways? If so, generally describe (indicate whether public or private).**

The proposed project requires excavation within the W. Commodore Way improved ROW, along the shoulder of the eastbound lane. Portions of the improved ROW that are disturbed by excavation activities would be restored to preconstruction conditions.

e. Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

The proposed project would occur within the vicinity of water transportation, because Salmon Bay is part of the larger Lake Washington ship canal corridor. The Bulk Terminal and ASKO parcels also lie adjacent to the BNSF railway, which provides rail transportation.

f. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and nonpassenger vehicles). What data or transportation models were used to make these estimates?

Vehicle trips produced by the completed project would be negligible. Vehicle trips would be generated during monitoring/maintenance activities post-remedy, and would include the following:

- Performance Monitoring: Personnel would visit the Property to conduct performance monitoring, post-remedy. This would occur quarterly for 2 years after remedy implementation.
- Confirmation Monitoring: Personnel would visit the Property to conduct confirmation monitoring on an annual basis. This activity would begin after the performance monitoring period is over and would continue until groundwater cleanup levels are met. This is anticipated to take approximately 15 years.
- Inspections of the Constructed Remedy: Periodic reviews of the remedy with potential visits to the Property would be conducted by Ecology until cleanup levels are met. This would happen periodically over the assumed 15-year period to achieve groundwater cleanup levels.

These trips would generate a negligible amount of vehicle trips.

g. Will the proposal interfere with, affect or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe.

Neither the proposed project nor its construction would interfere with, affect, or be affected by the movement of agricultural and forest products on roads or streets.

h. Proposed measures to reduce or control transportation impacts, if any:

The proposed project would require excavation within the City of Seattle ROW, on the shoulder of W. Commodore Ave's eastbound lane. The contractor will adhere to a project-specific Traffic Control Plan, prepared in accordance with Seattle Department of Transportation's Traffic Control Manual to control transportation impacts associated with this work. Displacement of formal parking spaces on the Bulk Terminal and ASKO parcels would occur on private land and would not constitute a transportation-related impact.

15. Public Services

- a. **Would the project result in an increased need for public services (for example: fire protection, police protection, public transit, health care, schools, other)? If so, generally describe.**

The proposed project would not establish a new land use or increase the intensity of an existing land use. Therefore, the completed project would not increase the demand for public services.

- b. **Proposed measures to reduce or control direct impacts on public services, if any.**

No reduction or control measures are proposed as no adverse impacts on public services would result from the proposed project.

16. Utilities

- a. **Circle utilities currently available at the site:**

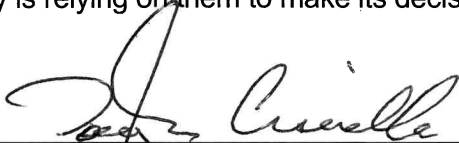
electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other _____

- b. **Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.**

The proposed project is a cleanup action; utilities would be used on a temporary basis for the duration of cleanup work and would be limited to water and electricity. Electricity would be provided from existing sources on the Property or from contractor-provided generators. Water would be obtained from a nearby fire hydrant, pending Seattle Public Utilities approval of a fire hydrant rental permit.

C. Signature

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature: 

Name of signee Douglas Ciserella

Position and Agency/Organization Manager, TOC Seattle Terminal, LLC

Date Submitted: 6/22/2020

D. Supplemental Sheet for Nonproject Actions

(IT IS NOT NECESSARY to use this sheet for project actions)

Because these questions are very general, it may be helpful to read them in conjunction with the list of the elements of the environment.

When answering these questions, be aware of the extent the proposal, or the types of activities likely to result from the proposal, would affect the item at a greater intensity or at a faster rate than if the proposal were not implemented. Respond briefly and in general terms.

- 1. How would the proposal be likely to increase discharge to water; emissions to air; production, storage, or release of toxic or hazardous substances; or production of noise?**

Proposed measures to avoid or reduce such increases are:

- 2. How would the proposal be likely to affect plants, animals, fish, or marine life?**

Proposed measures to protect or conserve plants, animals, fish, or marine life are:

- 3. How would the proposal be likely to deplete energy or natural resources?**

Proposed measures to protect or conserve energy and natural resources are:

- 4. How would the proposal be likely to use or affect environmentally sensitive areas or areas designated (or eligible or under study) for governmental protection; such as parks, wilderness, wild and scenic rivers, threatened or endangered species habitat, historic or cultural sites, wetlands, floodplains, or prime farmlands?**

Proposed measures to protect such resources or to avoid or reduce impacts are:

- 5. How would the proposal be likely to affect land and shoreline use, including whether it would allow or encourage land or shoreline uses incompatible with existing plans?**

Proposed measures to avoid or reduce shoreline and land use impacts are:








- 6. How would the proposal be likely to increase demands on transportation or public services and utilities?**




Proposed measures to reduce or respond to such demand(s) are:

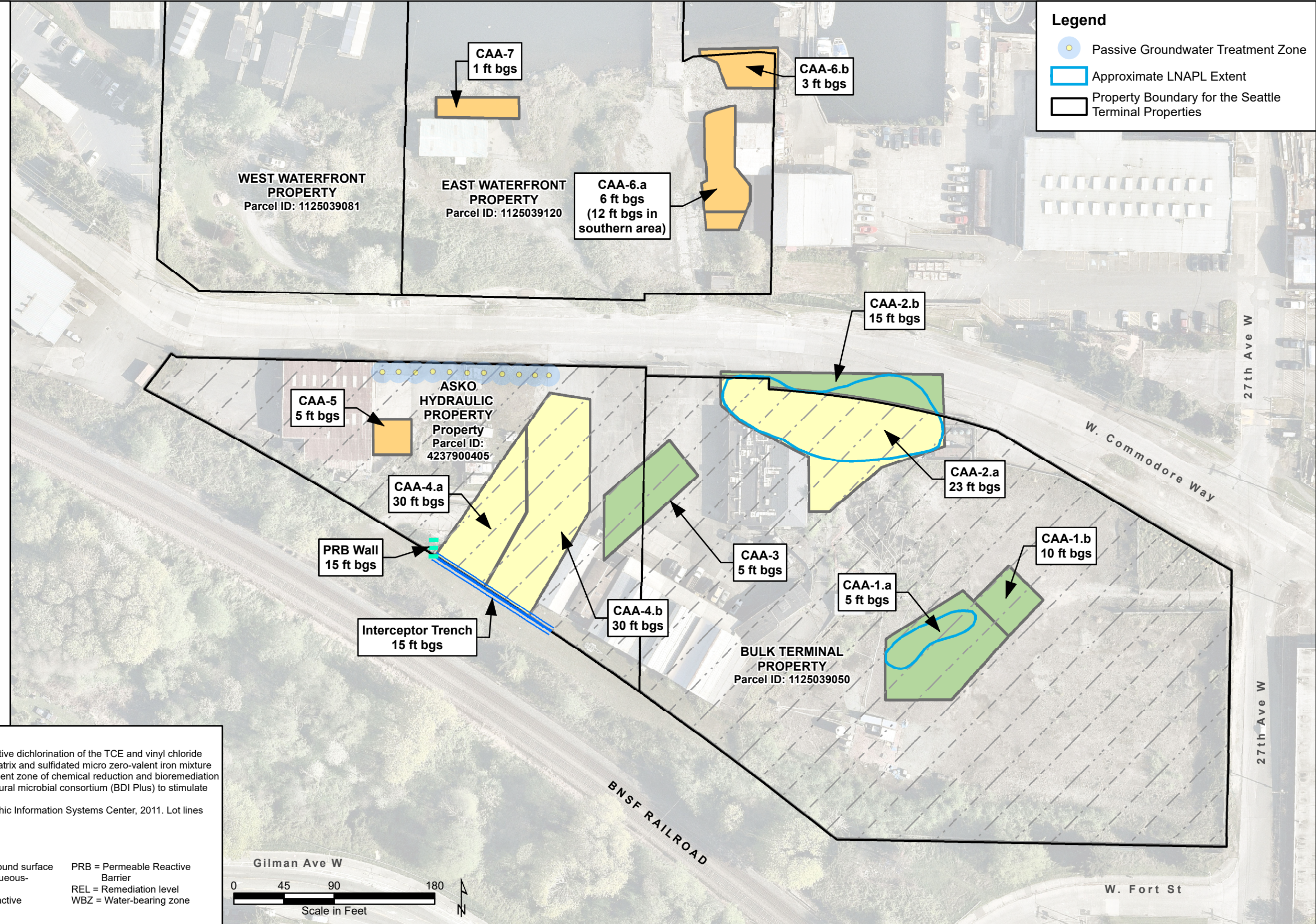
- 7. Identify, if possible, whether the proposal may conflict with local, state, or federal laws or requirements for the protection of the environment.**



Preferred Remedial Alternative

-  **Capping with Pavement or Buildings**
Upland AOC
-  **Excavation to CULs**
CAA-5 Hotspot
5 ft bgs (200 CY)
CAA-6.a
6 ft bgs (700 CY)
12 ft bgs (300 CY)
CAA-6.b
3 ft bgs (300 CY)
CAA-7
1 ft bgs (60 CY)
Total Volume Addressed
1,560 CY
-  **Excavation to RELs**
CAA-1.a
5 ft bgs (1,300 CY)
LNAPL Removal
CAA-1.b
10 ft bgs (800 CY)
CAA-2.b
15 ft bgs (2,100 CY)
LNAPL Removal
CAA-3
5 ft bgs (800 CY)
Total Volume Addressed
5,000 CY
-  **In Situ Stabilization/Solidification**
CAA-2.a
23 ft bgs (10,200 CY)
CAA-4.a
30 ft bgs (5,900 CY)
CAA-4.b
30 ft bgs (11,300 CY)
Total Volume Addressed
27,400 CY
-  **In Situ Groundwater Treatment⁽¹⁾**
CAA-5
-  **Interceptor Trench**
CAA-4
-  **PRB Wall with ZVI**
CAA-4

- Legend**
-  Passive Groundwater Treatment Zone
 -  Approximate LNAPL Extent
 -  Property Boundary for the Seattle Terminal Properties



Notes:

- In situ groundwater treatment includes enhanced reductive dichlorination of the TCE and vinyl chloride groundwater plume using a trademarked colloidal biomatrix and sulfidated micro zero-valent iron mixture (PlumeStop and S-MicroZVI) to create a passive treatment zone of chemical reduction and bioremediation in the Shallow WBZ and the addition of an enriched natural microbial consortium (BDI Plus) to stimulate rapid dichlorination of TCE.
- Parcel boundaries obtained from King County Geographic Information Systems Center, 2011. Lot lines are approximate. Not for legal use.
- Orthoimagery obtained from Nearmap, 2018.

Abbreviations:

AOC = Area of concern	ft bgs = Feet below ground surface	PRB = Permeable Reactive Barrier
BDI = Bio-Dechlor INOCULUM	LNAPL = Light non-aqueous-phase liquid	REL = Remediation level
CAA = Cleanup Action Area	PRB = Permeable Reactive Barrier	WBZ = Water-bearing zone
CUL = Cleanup level		
CY = Cubic yards		

