

**STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY**

In the Matter of Remedial Action by:

Port of Olympia  
City of Olympia  
LOTT Clean Water Alliance

at the East Bay Redevelopment Site

AGREED ORDER

No. DE14072

TO: Port of Olympia  
C/o Ms. Rachael Jamison, Director of Environmental Programs  
606 Columbia Street NW, Suite 300  
Olympia, WA 98501

City of Olympia  
C/o Mr. Jay Burney, Assistant City Manager – Special Projects  
P.O. Box 1967  
Olympia, WA 98507-1967

LOTT Clean Water Alliance  
C/o Ms Wendy Steffensen, Environmental Project Manager  
500 Adams Street NE  
Olympia, WA 98501

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## **I. INTRODUCTION**

The mutual objective of the State of Washington, Department of Ecology (Ecology) and the Port of Olympia, City of Olympia and Lacey, Olympia, Tumwater and Thurston County Clean Water Alliance (LOTT Alliance) under this Agreed Order (Order) is to provide for remedial action at a facility where there has been a release or threatened release of hazardous substances. This Order requires the Port of Olympia, City of Olympia and the LOTT Alliance (collectively the PLPs) to implement the attached Cleanup Action Plan (Exhibit A). Ecology believes the actions required by this Order are in the public interest.

## **II. JURISDICTION**

This Agreed Order is issued pursuant to the Model Toxics Control Act (MTCA), RCW 70.105D.050(1).

## **III. PARTIES BOUND**

This Agreed Order shall apply to and be binding upon the Parties to this Order, their successors and assigns. The undersigned representative of each party hereby certifies that he or she is fully authorized to enter into this Order and to execute and legally bind such party to comply with this Order. The PLPs agree to undertake all actions required by the terms and conditions of this Order. No change in ownership or corporate status shall alter the PLPs' responsibility under this Order. The PLPs shall provide a copy of this Order to all agents, contractors, and subcontractors retained to perform work required by this Order, and shall ensure that all work undertaken by such agents, contractors, and subcontractors complies with this Order.

## **IV. DEFINITIONS**

Unless otherwise specified herein, the definitions set forth in RCW 70.105D and WAC 173-340 shall control the meanings of the terms in this Order.

A. Site: The Site is referred to as East Bay Redevelopment. The Site constitutes a facility under RCW 70.105D.020(8). The Site is defined by where a hazardous substance, other than a consumer product in consumer use, has been deposited, stored, disposed of, or placed, or

otherwise come to be located. Based on factors currently known to Ecology, the Site is generally located at 315 Jefferson Street NE in Olympia, Washington as shown in the Site Location Diagram (Exhibit B).

B. Parties: Refers to the State of Washington, Department of Ecology and the Port of Olympia, City of Olympia and LOTT Alliance.

C. Potentially Liable Persons (PLPs): Refers to the Port of Olympia, City of Olympia and LOTT Alliance.

D. Agreed Order or Order: Refers to this Order and each of the exhibits to this Order. All exhibits are integral and enforceable parts of this Order.

## V. FINDINGS OF FACT

Ecology makes the following findings of fact, without any express or implied admissions of such facts by the PLPs:

A. Lumber milling operations were conducted under various owners/operators at the Site from at least 1888 until about 1968. Historic owners/operators included the St. Paul & Tacoma Lumber Company (1942 to 1968, Parcels 2 through 7); Olympia Veneer Company (1924 to mid-1940s, Parcels 2 through 6); Olympia Sawmill and Olympia Planing Mill (1888-1896, Parcel 3); Olympia Door and Lumber Company's planing mill and the East Side Lumber Company's saw mill (1896, Parcel 3); H.G. Richardson's Shingle Mill (1908, Parcel 3); the Olympia Door Company Sash and Door Factory (1908-1924, Parcel 9); the Puget Sound Pipe Company (wooden pipes, 1888-1896, Parcel 1); and the National Wood Pipe Company (1908, Parcels 5 and 6).

B. The lumber milling operations included various equipment and/or support facilities including: shops (such as machine shops, blacksmith shops, repair shops, welding shops, and electronic shops), dry kilns, veneer driers, power houses, boiler houses, oil houses, glue houses, flammable liquids storage, transformers, engine rooms, fuel bins, and tar dipping tanks. Also, historic aerial photographs show that logs were rafted in the bay, presumably for transport along Budd Inlet to various sawmills.

C. Most of the Site is situated on land that was reclaimed using fill material that consists of sediment that was dredged from Budd Inlet as part of civic improvement projects beginning in the late 1800s. The last fill event, which created the current shoreline, occurred along the eastern boundary of the Site in 1982. The 1982 fill was imported from an upland rock quarry and was placed subsequent to historical operations.

D. Past operations on property that is part of the Site, such as spills, buried refuse and treated wood pilings, have resulted in the contamination of soil for the following constituents: arsenic, lead, total petroleum hydrocarbons (TPH) in the gasoline range (TPH-G), total naphthalenes, TPH in the diesel range (TPH-D), TPH in the heavy oil range (TPH-HO), total carcinogenic polycyclic aromatic hydrocarbons (cPAHs), and chlorinated dibenzo-p-dioxins and chlorinated dibenzofurans (dioxins/furans).

E. The Port of Olympia purchased property which is part of the Site on or about December 29, 1971, and is a current property owner. Since lumber milling operations ceased in 1968, the Port of Olympia and its tenants have used portions of the Site for commercial and light industrial activities and/or storage.

F. The City of Olympia purchased property which is part of the Site on June 3, 2010 and is a current property owner.

G. LOTT Alliance purchased property which is part of the Site on June 3, 2010 and is a current property owner.

H. On October 3, 2008, Ecology and the Port of Olympia entered into Agreed Order No. DE 5471 which required the Port of Olympia to conduct a Remedial Investigation (RI) and Interim Action at the Site. In accordance with the Agreed Order's Schedule of Deliverables, the Port of Olympia submitted for Ecology's approval a RI Work Plan and an Interim Action Work Plan. Ecology approved the RI Work Plan in writing on September 21, 2009. Ecology approved the Interim Action Work Plan in writing on May 4, 2009, and made a State Environmental Policy Act (SEPA) threshold Determination of Non-Significance (DNS). Public comment on the RI Work Plan, the Interim Action Work Plan, and the SEPA determination was open from

March 16, 2009, through April 16, 2009. Before the comment period was completed, Ecology held a public open house meeting to provide the public with additional information on April 1, 2009. After review of the public comments, Ecology approved the RI Work Plan and the Interim Action Work Plan as final. No changes were made to the SEPA DNS. Ecology approved the Agreed Order No. DE 5471 Interim Action Report in writing on June 18, 2010.

I. On September 23, 2010, Ecology, the Port of Olympia, City of Olympia and LOTT Alliance entered into Agreed Order No. DE 7830 requiring the PLPs to implement an interim action at Parcels 4 and 5 of the Site, submit a site boundary technical memorandum, draft a remedial investigation/feasibility study report, and submit a draft cleanup action plan. Agreed Order No. DE 7830 fully superseded and replaced Agreed Order No. DE 5471. Ecology approved in writing the Agreed Order No. DE 7830 Interim Action Report on October 20, 2016.

## **VI. ECOLOGY DETERMINATIONS**

Ecology makes the following determinations, without any express or implied admissions of such determinations (and underlying facts) by the PLPs.

A. The Port of Olympia is an “owner or operator” as defined in RCW 70.105D.020(17) of a “facility” as defined in RCW 70.105D.020(5). The Port currently owns property that is part of the Site.

B. The City of Olympia is an “owner or operator” as defined in RCW 70.105D.020(17) of a “facility” as defined in RCW 70.105D.020(5). The City currently owns property that is part of the Site.

C. LOTT Alliance is an “owner or operator” as defined in RCW 70.105D.020(17) of a “facility” as defined in RCW 70.105D.020(5). LOTT Alliance currently owns property that is part of the Site.

D. Based upon all factors known to Ecology, a “release” or “threatened release” of “hazardous substance(s)” as defined in RCW 70.105D.020(32) and (13), respectively, has occurred at the Site.

E. Based upon credible evidence, Ecology issued a PLP status letter to the Port of Olympia dated February 14, 2008, pursuant to RCW 70.105D.040, 70.105D.020(21) and WAC 173-340-500. By letter dated February 21, 2008, the Port of Olympia voluntarily waived its rights to notice and comment and accepted Ecology's determination that the Port of Olympia is a PLP under RCW 70.105D.040.

F. Based upon credible evidence, Ecology issued a PLP status letter to the City of Olympia dated June 14, 2010, pursuant to RCW 70.105D.040, 70.105D.020(21) and WAC 173-340-500. By letter dated June 21, 2010, the City of Olympia voluntarily waived its rights to notice and comment and accepted Ecology's determination that the City of Olympia is a PLP under RCW 70.105D.040.

G. Based upon credible evidence, Ecology issued a PLP status letter to LOTT Alliance dated June 14, 2010, pursuant to RCW 70.105D.040, 70.105D.020(21) and WAC 173-340-500. By letter dated June 21, 2010, LOTT Alliance voluntarily waived its rights to notice and comment and accepted Ecology's determination that LOTT Alliance is a PLP under RCW 70.105D.040.

H. Pursuant to RCW 70.105D.030(1) and .050(1), Ecology may require PLPs to investigate or conduct other remedial actions with respect to any release or threatened release of hazardous substances, whenever it believes such action to be in the public interest. Based on the foregoing facts, Ecology believes the remedial actions required by this Order are in the public interest.

## **VII. WORK TO BE PERFORMED**

Based on the Findings of Fact and Ecology Determinations, it is hereby ordered that the PLPs take the following remedial actions at the Site and that these actions be conducted in accordance with WAC 173-340:

A. The PLPs shall conduct a final cleanup action at the Site by implementing the Cleanup Action Plan (CAP) (Exhibit A) according to the attached Schedule of Work and

Deliverables (Exhibit C) and all other requirements of this Decree. The cleanup action includes, but is not limited to the following actions:

- a. Targeted soil removal from areas where remediation levels are exceeded. Soil above the remediation level will be disposed of at an accredited off-site facility permitted to receive the waste. The excavation area will be backfilled using clean soil.
  - b. Installation of a cap (building, asphalt or concrete surface, or other hardscaped area) or soil cover in all areas of the Site not covered by 1982 fill. The soil cover will consist of a permeable geotextile fabric and at least 12 inches of clean soil.
  - c. Placement of environmental (restrictive) covenants on the Site properties to prevent breaching of the cap or soil cover, prevent installation of a drinking water well within the Site boundary, restrictions on the construction of stormwater infiltration facilities or ponds, and a requirement that all stormwater catch basins, conveyance systems, and other appurtenances be of water-tight construction for selected areas of the Site.
- B. Within sixty (60) days of the effective date of the Agreed Order, PLPs shall submit for Ecology review and approval, the Agency Review Draft Engineering Design Report (EDR) and Construction Plans and Specifications (CPS) that meet the requirements of WAC 173-340-400(4). The plans shall include the following: estimated excavation depths, confirmation soil sampling, health and safety monitoring, soil handling and disposal, temporary erosion and sedimentation control plan, stormwater pollution prevention plan, and traffic control). PLPs shall incorporate Ecology's comments on the EDR and CPS within thirty (30) days of receiving comments.
- C. PLPs shall submit the Agency Review Draft Cleanup Action Completion Report for Ecology review within 90 days of completion of cleanup action excavation and contaminated soil transport and disposal (whichever is later). PLPs shall incorporate Ecology's comments on the report within thirty (30) days of receiving comments.



D. The Agency Review Draft Operation and Maintenance Plan shall be submitted by the PLPs for Ecology review within 30 days of completion of cleanup action excavation, contaminated soil transport and disposal, and capping (whichever is later). Ecology's comments shall be incorporated and revised plan(s) shall be submitted to Ecology within 30 days of the date of Ecology's comment letter on the plan(s).

E. The Agency Review Draft Environmental Covenants (ECs) shall be submitted to Ecology for review within 30 days of receipt of validated compliance soil sample results or the completion of cleanup action soil excavation, contaminated soil transport and disposal, and capping (whichever is later). After approval by Ecology, the PLPs shall record the ECs for each of the parcels that comprise the Site with the office of the Thurston County Auditor within 10 days. The original recorded ECs shall be provided to Ecology within 30 days of the recording date.

F. In accordance with WAC 173-340-840(5) and Ecology Toxics Cleanup Program Policy 840 (Data Submittal Requirements), data generated for contaminated site investigations and cleanups shall be submitted in both a written and electronic format. For additional information regarding electronic format requirements, see the website <http://www.ecy.wa.gov/eim>. All laboratory analyses shall be performed by a State of Washington certified laboratory for each analytical method used.

G. Preliminary data shall be also provided to Ecology for interim review as soon as it becomes available.

H. All plans or other deliverables submitted by the PLPs for Ecology's review and approval under the Schedule of Work and Deliverables (Exhibit C) shall, upon Ecology's approval, become integral and enforceable parts of this Order.

I. If Ecology determines that the PLPs have failed to make sufficient progress or failed to implement the remedial action, in whole or in part, Ecology may, after notice to the PLPs, perform any or all portions of the remedial action or at Ecology's discretion allow the PLPs an opportunity to correct. The PLPs shall reimburse Ecology for the costs of doing such

work in accordance with Section VIII.A (Remedial Action Costs). Ecology reserves the right to enforce requirements of this Order under Section X (Enforcement).

J. Except where necessary to abate an emergency situation, the PLPs shall not perform any remedial actions at the Site outside those remedial actions required by this Order, unless Ecology concurs, in writing, with such additional remedial actions.

## **VIII. TERMS AND CONDITIONS**

### **A. Payment of Remedial Action Costs**

The PLPs shall pay to Ecology costs incurred by Ecology pursuant to this Order and consistent with WAC 173-340-550(2). These costs shall include work performed by Ecology or its contractors for, or on, the Site under RCW 70.105D, including remedial actions and Order preparation, negotiation, oversight, and administration. These costs shall include work performed both prior to and subsequent to the issuance of this Order. Ecology's costs shall include costs of direct activities and support costs of direct activities as defined in WAC 173-340-550(2). For all Ecology costs incurred, the PLPs shall pay the required amount within thirty (30) days of receiving from Ecology an itemized statement of costs that includes a summary of costs incurred, an identification of involved staff, and the amount of time spent by involved staff members on the project. A general statement of work performed will be provided upon request. Itemized statements shall be prepared quarterly. Pursuant to WAC 173-340-550(4), failure to pay Ecology's costs within ninety (90) days of receipt of the itemized statement of costs will result in interest charges at the rate of twelve percent (12%) per annum, compounded monthly.

PLPs shall provide Ecology with an updated accounting of how the Port of Olympia has applied settlement funds to remedial action costs at the Site by October 30, 2017. If settlement funds remain, a subsequent update shall be provided by October 30, 2018.

In addition to other available relief, pursuant to RCW 19.16.500, Ecology may utilize a collection agency and/or, pursuant to RCW 70.105D.055, file a lien against real property subject to the remedial actions to recover unreimbursed remedial action costs.

**B. Designated Project Coordinators**

The project coordinator for Ecology is:

Steve Teel  
Toxics Cleanup Program  
Southwest Regional Office  
P.O. Box 47775  
Olympia, WA 98504-7775  
(360) 407-6247  
[steve.teel@ecy.wa.gov](mailto:steve.teel@ecy.wa.gov)

The project coordinator for the PLPs is:

Rachael Jamison  
606 Columbia Street NW, Suite 300  
Olympia, WA 98501  
(360) 528-8020  
[rachaelj@portolympia.com](mailto:rachaelj@portolympia.com)

Each project coordinator shall be responsible for overseeing the implementation of this Order. Ecology's project coordinator will be Ecology's designated representative for the Site. To the maximum extent possible, communications between Ecology and the PLPs, and all documents, including reports, approvals, and other correspondence concerning the activities performed pursuant to the terms and conditions of this Order shall be directed through the project coordinators. The project coordinators may designate, in writing, working level staff contacts for all or portions of the implementation of the work to be performed required by this Order.

Any party may change its respective project coordinator. Written notification shall be given to the other party at least ten (10) calendar days prior to the change.

**C. Performance**

All geologic and hydrogeologic work performed pursuant to this Order shall be under the supervision and direction of a geologist or hydrogeologist licensed by the State of Washington or under the direct supervision of an engineer registered by the State of Washington, except as otherwise provided for by RCW 18.43 and 18.220.

All engineering work performed pursuant to this Order shall be under the direct supervision of a professional engineer registered by the State of Washington, except as otherwise provided for by RCW 18.43.130.

All construction work performed pursuant to this Order shall be under the direct supervision of a professional engineer or a qualified technician under the direct supervision of a professional engineer. The professional engineer must be registered by the State of Washington, except as otherwise provided for by RCW 18.43.130.

Any documents submitted containing geologic, hydrologic, or engineering work shall be under the seal of an appropriately licensed professional as required by RCW 18.43 and 18.220.

The PLPs shall notify Ecology in writing of the identity of any engineer(s) and geologist(s), contractor(s) and subcontractor(s), and others to be used in carrying out the terms of this Order, in advance of their involvement at the Site.

**D. Access**

Ecology or any Ecology authorized representative shall have access to enter and freely move about all property at the Site that the PLPs either own, control, or have access rights to at all reasonable times for the purposes of, *inter alia*: inspecting records, operation logs, and contracts related to the work being performed pursuant to this Order; reviewing the PLPs' progress in carrying out the terms of this Order; conducting such tests or collecting such samples as Ecology may deem necessary; using a camera, sound recording, or other documentary type equipment to record work done pursuant to this Order; and verifying the data submitted to Ecology by the PLPs. The PLPs shall make all reasonable efforts to secure access rights for those properties within the Site not owned or controlled by the PLPs where remedial activities or investigations will be performed pursuant to this Order. Ecology or any Ecology authorized representative shall give reasonable notice before entering any Site property owned or controlled by the PLPs unless an emergency prevents such notice. All persons who access the Site pursuant to this section shall comply with any applicable health and safety plan(s). Ecology employees

and their representatives shall not be required to sign any liability release or waiver as a condition of Site property access.

**E. Sampling, Data Submittal, and Availability**

With respect to the implementation of this Order, the PLPs shall make the results of all sampling, laboratory reports, and/or test results generated by it or on its behalf available to Ecology. Pursuant to WAC 173-340-840(5), all sampling data shall be submitted to Ecology in both printed and electronic formats in accordance with Section VII (Work to be Performed), Ecology's Toxics Cleanup Program Policy 840 (Data Submittal Requirements), and/or any subsequent procedures specified by Ecology for data submittal.

If requested by Ecology, the PLPs shall allow Ecology and/or its authorized representative to take split or duplicate samples of any samples collected by the PLPs pursuant to implementation of this Order. The PLPs shall notify Ecology seven (7) days in advance of any sample collection or work activity at the Site. Ecology shall, upon request, allow the PLPs and/or their authorized representative to take split or duplicate samples of any samples collected by Ecology pursuant to the implementation of this Order, provided that doing so does not interfere with Ecology's sampling. Without limitation on Ecology's rights under Section VIII.D (Access), Ecology shall notify the PLPs prior to any sample collection activity unless an emergency prevents such notice.

In accordance with WAC 173-340-830(2)(a), all hazardous substance analyses shall be conducted by a laboratory accredited under WAC 173-50 for the specific analyses to be conducted, unless otherwise approved by Ecology.

**F. Public Participation**

Ecology shall maintain the responsibility for public participation at the Site. However, the PLPs shall cooperate with Ecology, and shall:

1. If agreed to by Ecology, develop appropriate mailing lists and prepare drafts of public notices and fact sheets at important stages of the remedial action, such as the submission of work plans, remedial investigation/feasibility study reports, cleanup

action plans, and engineering design reports. As appropriate, Ecology will edit, finalize, and distribute such fact sheets and prepare and distribute public notices of Ecology's presentations and meetings.

2. Notify Ecology's project coordinator prior to the preparation of all press releases and fact sheets, and before meetings related to remedial action work to be performed at the Site with the interested public and/or local governments. Likewise, Ecology shall notify the PLPs prior to the issuance of all press releases and fact sheets related to the Site, and before meetings related to the Site with the interested public and local governments. For all press releases, fact sheets, meetings, and other outreach efforts by the PLPs that do not receive prior Ecology approval, the PLPs shall clearly indicate to its audience that the press release, fact sheet, meeting, or other outreach effort was not sponsored or endorsed by Ecology.

3. When requested by Ecology, participate in public presentations on the progress of the remedial action at the Site. Participation may be through attendance at public meetings to assist in answering questions or as a presenter.

4. When requested by Ecology, arrange and/or continue information repositories to be located at the following locations:

- a. Olympia Timberland Library  
313 8<sup>th</sup> Ave. SE  
Olympia WA  
(360) 352-0595
  
- b. Ecology's Southwest Regional Office  
300 Desmond Drive  
Lacey, WA 98503  
(360) 407-6045

At a minimum, copies of all public notices, fact sheets, and documents relating to public comment periods shall be promptly placed in these repositories. A copy of all documents related

to this Site shall be maintained in the repository at Ecology's Southwest Regional Office in Lacey, Washington.

**G. Retention of Records**

During the pendency of this Order, and for ten (10) years from the date of completion of work performed pursuant to this Order, the PLPs shall preserve all records, reports, documents, and underlying data in its possession relevant to the implementation of this Order and shall insert a similar record retention requirement into all contracts with project contractors and subcontractors. Upon request of Ecology, the PLPs shall make all records available to Ecology and allow access for review within a reasonable time.

Nothing in this Order is intended to waive any right the PLPs may have under applicable law to limit disclosure of documents protected by the attorney work-product privilege and/or the attorney-client privilege. If the PLPs withhold any requested records based on an assertion of privilege, the PLPs shall provide Ecology with a privilege log specifying the records withheld and the applicable privilege. No Site-related data collected pursuant to this Order shall be considered privileged.

**H. Resolution of Disputes**

1. In the event that the PLPs elect to invoke dispute resolution the PLPs must utilize the procedure set forth below.

a. Upon the triggering event (receipt of Ecology's project coordinator's written decision or an itemized billing statement), the PLPs have fourteen (14) calendar days within which to notify Ecology's project coordinator in writing of its dispute (Informal Dispute Notice).

b. The Parties' project coordinators shall then confer in an effort to resolve the dispute informally. The parties shall informally confer for up to fourteen (14) calendar days from receipt of the Informal Dispute Notice. If the project coordinators cannot resolve the dispute within those 14 calendar days, then within seven (7) calendar days Ecology's project coordinator shall issue a written decision (Informal Dispute

Decision) stating: the nature of the dispute; the PLPs position with regards to the dispute; Ecology's position with regards to the dispute; and the extent of resolution reached by informal discussion.

c. The PLPs may then request regional management review of the dispute. This request (Formal Dispute Notice) must be submitted in writing to the Southwest Region Toxics Cleanup Section Manager within seven (7) calendar days of receipt of Ecology's Informal Dispute Decision. The Formal Dispute Notice shall include a written statement of dispute setting forth: the nature of the dispute; the disputing Party's position with respect to the dispute; and the information relied upon to support its position.

d. The Section Manager shall conduct a review of the dispute and shall issue a written decision regarding the dispute (Decision on Dispute) within thirty (30) calendar days of receipt of the Formal Dispute Notice. The Decision on Dispute shall be Ecology's final decision on the disputed matter.

2. The Parties agree to only utilize the dispute resolution process in good faith and agree to expedite, to the extent possible, the dispute resolution process whenever it is used.

3. Implementation of these dispute resolution procedures shall not provide a basis for delay of any activities required in this Order, unless Ecology agrees in writing to a schedule extension.

4. In case of a dispute, failure to either proceed with the work required by this Order or timely invoke dispute resolution may result in Ecology's determination that insufficient progress is being made in preparation of a deliverable, and may result in Ecology undertaking the work under Section VII.F (Work to be Performed) or initiating enforcement under Section X (Enforcement).

#### **I. Extension of Schedule**

1. The PLPs request for an extension of schedule shall be granted only when a request for an extension is submitted in a timely fashion, generally at least thirty (30) days prior



to expiration of the deadline for which the extension is requested, and good cause exists for granting the extension. All extensions shall be requested in writing. The request shall specify:

- a. The deadline that is sought to be extended;
- b. The length of the extension sought;
- c. The reason(s) for the extension; and
- d. Any related deadline or schedule that would be affected if the extension were granted.

2. The burden shall be on the PLPs to demonstrate to the satisfaction of Ecology that the request for such extension has been submitted in a timely fashion and that good cause exists for granting the extension. Good cause may include, but may not be limited to:

- a. Circumstances beyond the reasonable control and despite the due diligence of the PLPs including delays caused by unrelated third parties or Ecology, such as (but not limited to) delays by Ecology in reviewing, approving, or modifying documents submitted by the PLPs;
- b. Acts of God, including fire, flood, blizzard, extreme temperatures, storm, or other unavoidable casualty; or
- c. Endangerment as described in Section VIII.K (Endangerment).

However, neither increased costs of performance of the terms of this Order nor changed economic circumstances shall be considered circumstances beyond the reasonable control of the PLPs.

3. Ecology shall act upon any the PLPs written request for extension in a timely fashion. Ecology shall give the PLPs written notification of any extensions granted pursuant to this Order. A requested extension shall not be effective until approved by Ecology. Unless the extension is a substantial change, it shall not be necessary to amend this Order pursuant to Section VIII.J (Amendment of Order) when a schedule extension is granted.

4. At the PLPs request, an extension shall only be granted for such period of time as Ecology determines is reasonable under the circumstances. Ecology may grant schedule extensions exceeding ninety (90) days only as a result of:

- a. Delays in the issuance of a necessary permit which was applied for in a timely manner;
- b. Other circumstances deemed exceptional or extraordinary by Ecology; or
- c. Endangerment as described in Section VIII.K (Endangerment).

**J. Amendment of Order**

The project coordinators may verbally agree to minor changes to the work to be performed without formally amending this Order. Minor changes will be documented in writing by Ecology within seven (7) days of verbal agreement.

Except as provided in Section VIII.L (Reservation of Rights), substantial changes to the work to be performed shall require formal amendment of this Order. This Order may only be formally amended by the written consent of both Ecology and the PLPs. Ecology will provide its written consent to a formal amendment only after public notice and opportunity to comment on the formal amendment.

When requesting a change to the Order, the PLPs shall submit a written request to Ecology for approval. Ecology shall indicate its approval or disapproval in writing and in a timely manner after the written request is received. If Ecology determines that the change is substantial, then the Order must be formally amended. Reasons for the disapproval of a proposed change to this Order shall be stated in writing. If Ecology does not agree to a proposed change, the disagreement may be addressed through the dispute resolution procedures described in Section VIII.H (Resolution of Disputes).

**K. Endangerment**

In the event Ecology determines that any activity being performed at the Site under this Order is creating or has the potential to create a danger to human health or the environment on or surrounding the Site, Ecology may direct the PLPs to cease such activities for such period of

time as it deems necessary to abate the danger. The PLPs shall immediately comply with such direction.

In the event the PLPs determine that any activity being performed at the Site under this Order is creating or has the potential to create a danger to human health or the environment, the PLPs may cease such activities. The PLPs shall notify Ecology's project coordinator as soon as possible, but no later than twenty-four (24) hours after making such determination or ceasing such activities. Upon Ecology's direction, the PLPs shall provide Ecology with documentation of the basis for the determination or cessation of such activities. If Ecology disagrees with the PLPs' cessation of activities, it may direct the PLPs to resume such activities.

If Ecology concurs with or orders a work stoppage pursuant to this section, the PLPs obligations with respect to the ceased activities shall be suspended until Ecology determines the danger is abated, and the time for performance of such activities, as well as the time for any other work dependent upon such activities, shall be extended in accordance with Section VIII.I (Extension of Schedule) for such period of time as Ecology determines is reasonable under the circumstances.

Nothing in this Order shall limit the authority of Ecology, its employees, agents, or contractors to take or require appropriate action in the event of an emergency.

**L. Reservation of Rights**

This Order is not a settlement under RCW 70.105D. Ecology's signature on this Order in no way constitutes a covenant not to sue or a compromise of any of Ecology's rights or authority. Ecology will not, however, bring an action against the PLPs to recover remedial action costs paid to and received by Ecology under this Order. In addition, Ecology will not take additional enforcement actions against the PLPs regarding remedial actions required by this Order, provided the PLPs comply with this Order.

Ecology nevertheless reserves its rights under RCW 70.105D, including the right to require additional or different remedial actions at the Site should it deem such actions necessary to protect human health or the environment, and to issue orders requiring such remedial actions.

Ecology also reserves all rights regarding the injury to, destruction of, or loss of natural resources resulting from the release or threatened release of hazardous substances at the Site.

By entering into this Order, the PLPs do not admit to any liability for the Site. Although the PLPs are committing to conducting the work required by this Order under the terms of this Order, the PLPs expressly reserve all rights available under law, including but not limited to the right to seek cost recovery or contribution against third parties, and the right to assert any defenses to liability in the event of enforcement.

**M. Transfer of Interest in Property**

No voluntary conveyance or relinquishment of title, easement, leasehold, or other interest in any portion of the Site shall be consummated by the PLPs without provision for continued implementation of all requirements of this Order and implementation of any remedial actions found to be necessary as a result of this Order.

Prior to the a PLP's transfer of any interest in all or any portion of the Site, and during the effective period of this Order, the PLP shall provide a copy of this Order to any prospective purchaser, lessee, transferee, assignee, or other successor in said interest; and, at least thirty (30) days prior to any transfer, the PLP shall notify Ecology of said transfer. Upon transfer of any interest, the PLP shall notify all transferees of the restrictions on the activities and uses of the property under this Order and incorporate any such use restrictions into the transfer documents.

**N. Compliance with Applicable Laws**

1. All actions carried out by the PLPs pursuant to this Order shall be done in accordance with all applicable federal, state, and local requirements, including requirements to obtain necessary permits or approvals, except as provided in RCW 70.105D.090. The permits or specific federal, state, or local requirements that the agency has determined are applicable and that are known at the time of the execution of this Order have been identified in the CAP (Exhibit A). The PLPs have a continuing obligation to identify additional applicable federal, state, and local requirements which apply to actions carried out pursuant to this Order, and to comply with those requirements. As additional federal, state, and local requirements are

identified by Ecology or the PLPs, Ecology will document in writing if they are applicable to actions carried out pursuant to this Order, and the PLP must implement those requirements.

2. All actions carried out by the PLPs pursuant to this Order shall be done in accordance with relevant and appropriate requirements identified by Ecology. At this time, no relevant and appropriate requirements have been identified as being applicable to the actions required by this Order. If additional relevant and appropriate requirements are identified by Ecology or the PLPs, Ecology will document in writing if they are applicable to actions carried out pursuant to this Order and the PLP must implement those requirements.

3. Pursuant to RCW 70.105D.090(1), the PLPs may be exempt from the procedural requirements of RCW 70.94, 70.95, 70.105, 77.55, 90.48, and 90.58 and of any laws requiring or authorizing local government permits or approvals. However, the PLPs shall comply with the substantive requirements of such permits or approvals. For permits and approvals covered under RCW 70.105D.090(1) that have been issued by local government, the Parties agree that Ecology has the non-exclusive ability under this Order to enforce those local government permits and/or approvals. At this time, no state or local permits or approvals have been identified as being applicable but procedurally exempt under this section.

4. The PLPs have a continuing obligation to determine whether additional permits or approvals addressed in RCW 70.105D.090(1) would otherwise be required for the remedial action under this Order. In the event either Ecology or the PLPs determine that additional permits or approvals addressed in RCW 70.105D.090(1) would otherwise be required for the remedial action under this Order, it shall promptly notify the other party of its determination. Ecology shall determine whether Ecology or the PLPs shall be responsible to contact the appropriate state and/or local agencies. If Ecology so requires, the PLPs shall promptly consult with the appropriate state and/or local agencies and provide Ecology with written documentation from those agencies of the substantive requirements those agencies believe are applicable to the remedial action. Ecology shall make the final determination on the additional substantive requirements that must be met by the PLPs and on how the PLPs must meet those requirements.

Ecology shall inform the PLPs in writing of these requirements. Once established by Ecology, the additional requirements shall be enforceable requirements of this Order. The PLPs shall not begin or continue the remedial action potentially subject to the additional requirements until Ecology makes its final determination.

Pursuant to RCW 70.105D.090(2), in the event Ecology determines that the exemption from complying with the procedural requirements of the laws referenced in RCW 70.105D.090(1) would result in the loss of approval from a federal agency that is necessary for the state to administer any federal law, the exemption shall not apply and the PLPs shall comply with both the procedural and substantive requirements of the laws referenced in RCW 70.105D.090(1), including any requirements to obtain permits or approvals.

**O. Land Use Restrictions**

As detailed in the CAP, institutional controls are required at the Site. Environmental (Restrictive) Covenants will be used to implement the institutional controls. In consultation with the Ecology, the PLPs will prepare the Environmental (Restrictive) Covenants consistent with WAC 173-340-440, RCW 64.70, and any policies or procedures specified by Ecology. The Environmental (Restrictive) Covenants shall restrict future activities and uses of the Site as agreed to by Ecology and the PLPs.

After approval by Ecology, the PLPs shall record the Environmental (Restrictive) Covenant for their respective affected properties with the office of the Thurston County Auditor as detailed in the Schedule (Exhibit C). The PLPs shall provide Ecology with the original recorded Environmental (Restrictive) Covenants within thirty (30) days of the recording date.

**P. Financial Assurances**

Pursuant to WAC 173-340-440(11), the PLPs shall maintain sufficient and adequate financial assurance mechanisms to cover all costs associated with the operation and maintenance of the remedial action at the Site, including institutional controls, compliance monitoring, and corrective measures.

Within sixty (60) days of the effective date of this Order, the PLPs shall submit to Ecology for review and approval an estimate of the costs that it will incur in carrying out the terms of this Order, including operation and maintenance, and compliance monitoring. Within sixty (60) days after Ecology approves the aforementioned cost estimate, the PLPs shall provide proof of financial assurances sufficient to cover all such costs in a form acceptable to Ecology.

The PLPs shall adjust the financial assurance coverage and provide Ecology's project coordinator with documentation of the updated financial assurance for:

1. Inflation, annually, within thirty (30) days of the anniversary date of the entry of this Order; or if applicable, the modified anniversary date established in accordance with this section, or if applicable, ninety (90) days after the close of the PLPs' fiscal year if the financial test or corporate guarantee is used.

2. Changes in cost estimates, within thirty (30) days of issuance of Ecology's approval of a modification or revision to the cleanup action plan (CAP) that result in increases to the cost or expected duration of remedial actions. Any adjustments for inflation since the most recent preceding anniversary date shall be made concurrent with adjustments for changes in cost estimates. The issuance of Ecology's approval of a revised or modified CAP will revise the anniversary date established under this section to become the date of issuance of such revised or modified CAP.

**Q. Periodic Review**

As remedial action continues at the Site, the Parties agree to review the progress of remedial action at the Site, and to review the data accumulated as a result of monitoring the Site as often as is necessary and appropriate under the circumstances. At least every five (5) years after the initiation of cleanup action at the Site the Parties shall meet to discuss the status of the Site and the need, if any, for further remedial action at the Site. At least ninety (90) days prior to each periodic review, the PLPs shall submit a report to Ecology that documents whether human health and the environment are being protected based on the factors set forth in WAC 173-340-

420(4). Ecology reserves the right to require further remedial action at the Site under appropriate circumstances. This provision shall remain in effect for the duration of this Order.

**R. Indemnification**

The PLPs agree to indemnify and save and hold the State of Washington, its employees, and agents harmless from any and all claims or causes of action (1) for death or injuries to persons, or (2) for loss or damage to property, to the extent arising from or on account of acts or omissions of the PLPs, their officers, employees, agents, or contractors in entering into and implementing this Order. However, the PLPs shall not indemnify the State of Washington nor save nor hold its employees and agents harmless from any claims or causes of action to the extent arising out of the negligent acts or omissions of the State of Washington, or the employees or agents of the State, in entering into or implementing this Order.

**IX. SATISFACTION OF ORDER**

The provisions of this Order shall be deemed satisfied upon the PLPs receipt of written notification from Ecology that the PLPs have completed the remedial activity required by this Order, as amended by any modifications, and that the PLPs have complied with all other provisions of this Agreed Order.

**X. ENFORCEMENT**

Pursuant to RCW 70.105D.050, this Order may be enforced as follows:

A. The Attorney General may bring an action to enforce this Order in a state or federal court.

B. The Attorney General may seek, by filing an action, if necessary, to recover amounts spent by Ecology for investigative and remedial actions and orders related to the Site.

C. A liable party who refuses, without sufficient cause, to comply with any term of this Order will be liable for:

1. Up to three (3) times the amount of any costs incurred by the State of Washington as a result of its refusal to comply.



2. Civil penalties of up to twenty-five thousand dollars (\$25,000) per day for each day it refuses to comply.

D. This Order is not appealable to the Washington Pollution Control Hearings Board.

This Order may be reviewed only as provided under RCW 70.105D.060.

Effective date of this Order: \_\_\_\_\_

PORT OF OLYMPIA

STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

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Executive Director  
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**EXHIBIT A**

**CLEANUP ACTION PLAN**

# Draft Cleanup Action Plan

**East Bay Redevelopment Site  
Olympia, Washington  
Facility/Site No. 5785176  
Cleanup Site ID: 407**



MARCH 2017

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## ACRONYMS AND ABBREVIATIONS

Acronym	Explanation
bgs	Below Ground Surface
CAP	Cleanup Action Plan
City	City of Olympia
CL	Cleanup Level
COC	Constituent of Concern
cPAHs	Carcinogenic Polycyclic Aromatic Hydrocarbons
CSEM	Conceptual Site Exposure Model
cy	Cubic yards
Dioxins/Furans	Chlorinated Dibenzo-p-dioxins and Chlorinated Dibenzofurans
ECs	Engineering Controls
Ecology	Washington State Department of Ecology
FS	Feasibility Study
IA	Interim Action
ICs	Institutional Controls
LOTT	Lacey, Olympia, Tumwater, and Thurston County Clean Water Alliance
MTCA	Model Toxics Control Act
MW	Monitoring Well
NPDES	National Pollutant Discharge Elimination System
PIONEER	PIONEER Technologies Corporation
POC	Point of Compliance
Port	Port of Olympia
RCW	Revised Code of Washington
RI	Remedial Investigation
RL	Remediation Level
SEPA	State Environmental Policy Act
Site	East Bay Redevelopment Site
TCP	Toxics Cleanup Program
TPH	Total Petroleum Hydrocarbons
TPH-D	Total Petroleum Hydrocarbons in the Diesel Range
TPH-G	Total Petroleum Hydrocarbons in the Gasoline Range
TPH-HO	Total Petroleum Hydrocarbons in the Heavy Oil Range
UECA	Uniform Environmental Covenants Act
WAC	Washington Administrative Code

## SECTION 1 – INTRODUCTION AND BACKGROUND

The purpose of this draft Cleanup Action Plan (CAP) is to summarize the cleanup action proposed by the Washington State Department of Ecology (Ecology) for the East Bay Redevelopment Site (Site) in accordance with Washington Administrative Code (WAC) 173-340-380(1)(a). The information presented in this draft CAP is based on the Site Remedial Investigation (RI)/Feasibility Study (FS) Report prepared in accordance with WAC 173-340-350 (PIONEER Technologies Corporation [PIONEER] 2016). The RI/FS Report and the draft CAP for this Model Toxics Control Act (MTCA) Site were prepared pursuant to Agreed Order DE7830. The Port of Olympia (Port), City of Olympia (City), and Lacey, Olympia, Tumwater, and Thurston County Clean Water Alliance (LOTT) are potentially liable persons in Agreed Order DE7830.

The approximately 14.8-acre Site is located in Olympia, Washington adjacent to the southwest corner of the East Bay of Budd Inlet (see Figure 1). As shown on Figure 1, the original (predevelopment) shoreline near the Site was significantly different than the current shoreline. Most of the Site is situated on land that was reclaimed using fill material that consists of sediment that was dredged from Budd Inlet as part of civic improvement projects beginning in the late 1800s. The last fill event, which created the current shoreline, occurred along the eastern boundary of the Site in 1982. The 1982 fill was imported from an upland rock quarry and was placed subsequent to historical operations<sup>1</sup>. Site contamination is not present in 1982 fill, but is present in pre-1982 fill material as a result of historical Site operations. The primary historical operations of interest for this MTCA Site are the former lumber milling activities and related operations that occurred from the late 1800s to 1972, including lumber sawing, lumber milling, veneer manufacturing, and plywood manufacturing.

In order to characterize the nature and extent of impacts associated with the historical Site operations, soil and groundwater RI activities were conducted at the Site from 2006 to 2015. During the RI, 292 soil samples were collected from multiple depths at 130 locations. Based on the sample results, arsenic, lead, total petroleum hydrocarbons (TPH) in the gasoline range (TPH-G), total naphthalenes, TPH in the diesel range (TPH-D) and TPH in the heavy oil range (TPH-HO) combined, total carcinogenic polycyclic aromatic hydrocarbons (cPAHs), and total chlorinated dibenzo-p-dioxins and chlorinated dibenzofurans (dioxins/furans) were identified as soil constituents of concern (COCs). The primary COC release mechanisms appeared to be spills, buried refuse, and treated wood pilings. Further action is necessary for Site soil. Twenty-eight monitoring wells (MWs) were installed and groundwater samples were collected during 12 groundwater monitoring events. Based on the lack of groundwater impacts in these RI groundwater samples, no further action is necessary for Site groundwater. While the RI phase was being conducted, two Interim Actions (IAs) were completed. The principal components of the IAs were (1) excavation and off-site disposal of soil with concentrations that exceeded soil remediation levels (RLs),

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<sup>1</sup> The pre-1982 shoreline and fill event locations were determined by evaluating historical records (e.g., aerial photographs, Sanborn maps) presented in previous site reports (GeoEngineers 2007a, GeoEngineers and PIONEER 2008). The 1982 shoreline and fill event locations were determined by evaluating a 1979 aerial photograph (GeoEngineers 2007a), 1979 ground surface elevation contours (Eric Egge, personal communication), and boring logs (GeoEngineers 2007b, PIONEER 2009).

(2) installation of a soil cap/cover, and (3) implementation of engineering controls (ECs) during construction activities.

Current land use at the Site consists of urban land that was developed in conjunction with the aforementioned IAs and vacant land awaiting urban development. The current zoning for the Site is urban waterfront. Consistent with that zoning, future land use will be a collection of mixed-use urban buildings, which could include commercial office space, retail/restaurants, condominiums above ground-level retail space, et cetera. However, consistent with MTCA requirements, land use was assumed to be unrestricted (i.e., single-family residential) for the purposes of developing more protective soil cleanup levels (CLs), even though there is no current residential land use and zoning does not allow future single-family residential land use. Likewise, soil RLs were based on default exposure assumptions for commercial workers in order to develop protective RLs for the complete exposure pathways associated with construction/utility workers and utility maintenance workers.

Based on the RI results, the primary cleanup action objective is to protect human health and the environment by eliminating unacceptable soil exposures for hypothetical single-family residents and commercial workers (which were used as surrogate pathways for the complete exposure pathways). Other key cleanup action objectives are:

- Comply with cleanup standards
- Comply with applicable state and federal laws and regulations
- Provide for compliance monitoring
- Complete the cleanup action prior to Site redevelopment and consistent with anticipated future land use
- Consider public concerns
- Consider cost-effectiveness and sustainability criteria

An FS was conducted to develop and evaluate cleanup action alternatives for addressing Site soil impacts. As a first step, potentially applicable soil remedial technologies were reduced via a screening process to determine the most promising and feasible remedial technologies. Three cleanup action alternatives were assembled from the retained remedial technologies. These three alternatives represented a range of potential remedial approaches for addressing Site contamination, including one permanent alternative in accordance with WAC 173-340-350(8). The three alternatives (summarized in Section 2) were evaluated using the four MTCA threshold criteria in WAC 173-340-360(2)(a), the three MTCA balancing criteria in WAC 173-340-360(2)(b), and a sustainability criterion. All seven of the MTCA criteria were evaluated qualitatively by considering Site characteristics, COC characteristics, technology capabilities, and professional judgment. The sustainability criterion was evaluated qualitatively by considering air emissions, solid waste production, traffic, and resource usage.

## SECTION 2 – THE PROPOSED CLEANUP ACTION

### 2.1 Description of the Proposed Cleanup Action

The proposed cleanup action alternative was referred to in the RI/FS Report as Alternative 2 – Targeted Soil Removal, Cover, and Controls. This proposed cleanup action will include the following remedial components:

- Soil sample locations where concentrations exceeded the RLs will be excavated and disposed of at an off-site facility permitted to receive such waste (e.g., Weyerhaeuser Regional Landfill in Castle Rock, Washington). During the IAs, the RL exceedances within the IA areas were removed. The only remaining RL exceedances that need to be removed are associated with sample locations DP04, MW24S, and DP06/SVP2-SO (see Figure 2). The soil RL exceedances, the associated COC and concentrations, and depths are presented in the table below.

Sample ID	COC	Sample Depth	COC Concentration
DP04	Arsenic	4-6 feet below ground surface (bgs)	52 mg/kg
DP06	TPH-G	3-5 feet bgs	290 mg/kg
	Total Naphthalenes		142 mg/kg
SVP-2SO	TPH-G	4-6 feet bgs	1,100 mg/kg
	Total Naphthalenes		150 mg/kg
MW24S	Dioxins/furans	6.5-8 feet bgs	979 ng/kg

- Each initial excavation footprint will be approximately 10-feet by 10-feet. The excavation depths will be dependent on the RL exceedance depth.
- The total estimated quantity of soil from the initial excavations to be disposed of off-Site will be approximately 45 cubic yards (cy).
- One bottom and four sidewall soil samples (at the same depth as the RL exceedance) will be collected from the DP04 and MW24S excavations and four sidewall samples (at the same depth as the RL exceedance) will be collected from the DP06/SVP-2SO excavation. Confirmation samples will be collected in order to confirm that the excavation is in compliance with RLs. If the sampling results indicated that the excavation is still not in compliance with RLs, the excavation will continue to be expanded using the same process until compliance with RLs is achieved (based on additional sidewall/bottom soil sampling).
- If groundwater is encountered during excavations, dewatering procedures will be implemented. All water generated from excavation dewatering will be disposed of at an appropriate off-site facility (e.g., LOTT).
- Any temporary stockpiles generated during this process will be placed on an impervious surface (e.g., concrete, asphalt, or polyethylene liner with a thickness of at least 10-mils), and if left overnight, will be covered with a polyethylene liner (at least 10-mils thick), which will be secured with ropes and sandbags. Water drained from excavated soil will not be allowed to drain into the excavation but will be collected and disposed of with



other dewatering effluent.

- The RL excavations will be backfilled using clean soil from an off-site, documented, upland borrow source approved by Ecology.
- A soil cover will be installed in the portions of the Site not covered by 1982 fill. The soil cover will consist of a permeable geotextile fabric and at least 12 inches of clean soil from an off-site upland borrow source. Note that a suitable cap or soil cover already exists in Parcel 4, Parcel 5, the infrastructure corridor, and the existing landscaped area located between the Marine Drive sidewalk and Marine Drive (east of Parcels 4 through 7). Remaining areas that do not have a cap or soil cover will receive a soil cover as shown on Figure 2.
- Soil that is excavated to install the soil cover will be stockpiled on-site (on an impervious surface and covered with a plastic liner when not in use), and sampled to determine the final disposition for the excavated soil. If all COC concentrations in the stockpile characterization sample are less than or equal to RLs, then that stockpile can be reused on-site underneath the soil cover. The number of stockpile samples will be based on the size of the stockpile (see table below).

Stockpile Size (cy)	Sample Quantity
0 – 100	3
101 – 500	5
501 – 1,000	7
1,001 – 2,000	10
2,000	10 +1 for each additional 500 cy of soil

- The Port will require Site contractors to implement ECs during remediation activities (e.g., Site control measures, dust control measures, implementation of a health and safety plan, use of appropriately-trained workers).
- The Port, City, and LOTT will implement and maintain institutional controls (ICs) as described in Section 2.4.
- Compliance monitoring will include dust monitoring and qualitative EC assessments during remediation and redevelopment construction activities, excavation sidewall and bottom sampling, and long-term inspections of the soil cover and ICs.

It should be noted that most of the remaining areas that will receive a soil cover pursuant to this CAP will eventually be redeveloped. Any future development at a parcel which may disturb the soil cover will require Ecology written approval prior to development. Ecology shall review the proposed development and make a fact-specific determination whether the proposal is considered to be a substantial change that requires an amendment to the CAP or if it is a minor change that can just be documented in writing. For example, a change from a soil cover to an asphalt cap would likely be a minor change. However, the addition of a building may be considered a substantial change, particularly if it involves the excavation and removal of soils from the Site.

## 2.2 Cleanup Standards and Remediation Levels

In accordance with WAC 173-340-700(3), cleanup standards “consist of the following: (a) cleanup levels for hazardous substances present at the site; (b) the location where these cleanup levels must be met (point of compliance); and (c) other regulatory requirements that apply to the site because of the type of action and/or location of the site (‘applicable state and federal laws’).” Soil RLs were also established in accordance with WAC 173-340-355. The soil CLs and RLs were based on unrestricted land use (i.e., single-family residential) and commercial/industrial land use, respectively. The following table presents the CLs and RLs for the COCs:

Soil COC	Soil CL	Soil RL
Arsenic	20 mg/kg	20 mg/kg
Lead	250 mg/kg	1,000 mg/kg
TPH-G	100 mg/kg	100 mg/kg
Total Naphthalenes	5.0 mg/kg	5.0 mg/kg
TPH-D and TPH-HO Combined	4,700 mg/kg	24,000 mg/kg
Total cPAHs	0.095 mg/kg	3.4 mg/kg
Total Dioxins/Furans	11 ng/kg	590 ng/kg

The soil point of compliance (POC) applies everywhere within the Site boundary. Since the CLs and RLs were primarily based on the direct contact pathway, the soil POC depth will be from ground surface to 15 feet bgs in accordance with WAC 173-340-740(6)(d), with the following exception. In accordance with WAC 173-340-740(6)(c), the POC for the TPH-G and total naphthalenes soil CL and RL exceedances proximate to DP06 and SVP-2SO will be from ground surface to 4.5 feet bgs (which is the approximate depth to groundwater for that area).

No other applicable state and federal laws or regulations have been identified at this time that would modify the cleanup standards given the type of cleanup action alternatives and the location of the Site.

## 2.3 Site Contamination that Will Remain

All soil containing a COC concentration greater than a RL has been removed or will be removed pursuant to the proposed cleanup action. However, some soil CL exceedances will remain at the Site underneath the soil cap/cover. TPH-D and TPH-HO combined, total cPAHs, and total dioxins/furans are the only COCs that will have a remaining CL exceedance. The locations of the remaining CL exceedances for TPH-D and TPH-HO combined, total cPAHs, and total dioxins/furans, are presented in Figures 3 through 5, respectively. These remaining CL exceedances do not pose a threat to human health and the environment since (1) the CLs are based on an unrestricted land use scenario that is significantly more conservative than the reasonable maximum exposure assumptions for the complete exposure pathways, (2) all soil concentrations that pose a concern for the complete exposure pathways will be removed, (3) these three COCs bind strongly to soil and have limited mobility, and (4) the soil cap/cover, EC, and IC components of the proposed cleanup action will limit potential exposures.

## 2.4 Institutional Controls Required as Part of the Proposed Cleanup Action

ICs are a component of the proposed cleanup action. The Port, City, and LOTT will implement and maintain the ICs using an environmental covenant developed in accordance with WAC173-340-440 and Ecology's Toxics Cleanup Program (TCP) Procedure 440A. Specifically, the environmental covenant would:

- Prohibit any activity at the property which may result in the release of residual contamination contained as part of the remedial action, exacerbate or create a new exposure to residual contamination remaining on the Property, or disturb the soil cap/cover without prior written approval by Ecology
- Prohibit installation of a well for water supply purposes within the Site boundary
- Restrict extraction of groundwater within the Site boundary for any purpose other than temporary construction dewatering, investigation, monitoring or remediation
- Require that any groundwater extracted for any purpose within the Site boundary be considered potentially contaminated and any discharge of this water be done in accordance with state and federal law
- Restrict construction of stormwater infiltration facilities or ponds within the contaminant delineation areas where the depth of these exceedances are shallower than the historical lowest measured groundwater depths for that location<sup>2</sup>
- Require that all stormwater catch basins, conveyance systems, and other appurtenances be of water-tight construction within the contaminant delineation areas where the depth of these exceedances are shallower than the historical lowest measured groundwater depths for that location<sup>3</sup>

Once signed, the environmental covenant will be recorded in Thurston County in accordance with Uniform Environmental Covenants Act (UECA) requirements in the Revised Code of Washington (RCW) Chapter 64.70.080(1). A copy of the recorded environmental covenant will also be distributed to each person who signed the covenant, each person holding a recorded interest in the real property subject to the covenant, each person in possession of the real property subject to the covenant at the time the covenant is executed, the City, and Ecology per UECA requirements in RCW Chapter 64.70.070(1).

An Operations and Maintenance Plan (e.g., roles and responsibilities, a land use inspection form, instructions for using the form) that will be used for long-term monitoring of the ICs, cap, and soil cover will be prepared once the remaining soil RLs are removed and the remaining soil cover is installed.

## 2.5 Other Environmental Laws and Regulations Associated with the Proposed Cleanup Action

Non-MTCA environmental laws and regulations that will be incorporated into remedy design and

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<sup>2</sup> Unless the soil associated with the exceedance is removed as part of the cleanup.

<sup>3</sup> Unless the soil associated with the exceedance is removed as part of the cleanup.

implementation activities as necessary include:

- State Environmental Policy Act (SEPA) as authorized by the RCW 43.21C and WAC 197-11
- Occupational Safety and Health Act and Washington Industrial Safety and Health Act regulations (e.g., 29 Code of Federal Regulations 1910.120, Chapter 296-843 WAC).
- Washington Industrial Safety and Health Act, Chapter 49.17 RCW, Safety Standards for Construction Work (WAC 296-155).
- Underground Utilities, RCW 19.122.010, General Protection Requirements (WAC 296-155-655).
- Coverage under the general construction stormwater National Pollutant Discharge Elimination System (NPDES) permit.
- City permit requirements (e.g., grading permit, shoreline management permit).
- LOTT discharge authorization letter to dispose of wastewater generated during the cleanup action (e.g., from dewatering).
- Chapter 173-160 WAC requirements to decommission all remaining Site MWs prior to any remediation construction activities.
- Resource Conservation and Recovery Act regulations for waste generation, hauling, and disposal (e.g., Chapter 173-303 WAC, Chapter 173-350 WAC).
- Solid Waste Management Chapter 43.21 RCW, Minimum Functional Standards for Solid Waste Handling (WAC 173-304).

## 2.6 Other Cleanup Action Alternatives Evaluated

The FS evaluated three cleanup action alternatives (Alternatives 1 through 3). The proposed cleanup action alternative was referred to in the RI/FS Report as Alternative 2 – Targeted Soil Removal, Cover, and Controls. The other two alternatives evaluated in the FS were referred to as:

- Alternative 1 – Institutional Controls and Engineering Controls
- Alternative 3 – Total Soil Removal

Alternative 1 would have entailed (1) implementing ECs during redevelopment construction activities and (2) implementing and maintaining ICs within the Site boundary for perpetuity using an environmental covenant. Alternative 1 would not have included any soil removal or construction of a soil cover beyond what will be installed pursuant to redevelopment activities.

Alternative 3 would have entailed removing significantly more soil than Alternative 2 so that a soil cover and long-term ICs would not be required.

## 2.7 Rationale for Recommending the Proposed Cleanup Action

The three cleanup action alternatives were evaluated using the seven MTCA FS criteria in WAC 173-340-360(2). The four threshold criteria are:

- “Protect human health and the environment”
- “Comply with cleanup standards”

- “Comply with applicable state and federal laws”
- “Provide for compliance monitoring”

The three “other” or balancing criteria are:

- “Use permanent solutions to the maximum extent practicable”
- “Provide for a reasonable restoration time frame”
- “Consider public concerns”

Although not part of the official MTCA evaluation criteria, a sustainability criterion was also included as an evaluation criterion since it is now recognized that the secondary environmental impacts (e.g., carbon footprint) of a cleanup action alternative can outweigh environmental cleanup benefits achieved by that cleanup action alternative.

Alternative 2 is the proposed cleanup action alternative because it is the most desirable alternative. Alternative 2 satisfies all of the MTCA threshold criteria and is the most attractive alternative when considering the MTCA balancing criteria and the sustainability criterion. Alternative 2 protects human health and the environment, employs reliable and proven technologies, and can be completed quickly. There are no significant negative aspects or tradeoffs associated with Alternative 2. Alternative 2 is also consistent with the remedy selected and implemented for the two previous Ecology-approved IAs at the Site.

### **2.8 Compliance with WAC 173-340-360**

The proposed cleanup action will comply with the provisions of WAC 173-340-360 because it will protect human health and the environment, comply with cleanup standards, comply with applicable state and federal laws, and provide for compliance monitoring. In addition, the proposed cleanup action uses permanent solutions to the maximum extent practicable, provides for a reasonable restoration timeframe, and will consider public concerns. The proposed cleanup action will comply with WAC 173-340-360 by (1) removing all soil RL exceedances, (2) installing and maintaining a soil cover over the entire Site, (3) implementing ECs during remediation and redevelopment construction activities, (4) implementing and maintaining ICs for perpetuity, and (5) conducting compliance monitoring.

## SECTION 3 – CLEANUP IMPLEMENTATION SCHEDULE

A schedule for cleanup implementation and associated deliverables is shown below:

DELIVERABLE/TASK	SCHEDULE
Engineering Design Report and Construction Plans and Specifications. These documents shall also include the following plans in appendices: Erosion Control and Stormwater Pollution Prevention Plan, Spill Prevention, Control, and Countermeasure Plan, Soil Handling Plan, Soil Compliance Monitoring Plan, and a Traffic Control Plan.	Submitted to Ecology for review within 60 days of the effective date of the Agreed Order. Ecology’s comments shall be incorporated and a revised plan shall be submitted to Ecology within 30 days of the date of Ecology’s comment letter.
Cleanup Implementation (remedial excavation and soil cover installation).	Within 30 days after Ecology’s approval of the Engineering Design Report and Construction Plans and Specifications, issuance of the Construction Stormwater General NPDES Permit, and documentation that the substantive requirements of city of Olympia permits have been met.
Cleanup Action Completion Report	Submitted for Ecology review within 90 days of completion of cleanup action excavation and contaminated soil transport and disposal (whichever is later). Ecology’s comments shall be incorporated and a revised report shall be submitted to Ecology within 30 days of the date of Ecology’s comment letter.
Operation and Maintenance Plan	Submitted for Ecology review within 30 days of completion of cleanup action excavation, contaminated soil transport and disposal, and capping (whichever is later). Ecology’s comments shall be incorporated and revised plan(s) shall be submitted to Ecology within 30 days of the date of Ecology’s comment letter on the plan(s).
Environmental Covenants	Draft Environmental Covenants (ECs) shall be submitted to Ecology for review within 30 days of receipt of validated compliance soil sample results or the completion of cleanup action soil excavation, contaminated soil transport and disposal, and capping (whichever is later). After approval by Ecology, record the ECs for each of the parcels that comprise the Site with the office of the Thurston County Auditor within 10 days.

## Draft Cleanup Action Plan

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Environmental Covenants (continued)

The original recorded ECs shall be provided to Ecology within 30 days of the recording date.

## SECTION 4 – REFERENCES

- PIONEER 2009. Port of Olympia East Bay Site: Interim Action Work Plan, May.
- 2016. Remedial Investigation/Feasibility Study Report, East Bay Redevelopment Site, October.
- GeoEngineers 2007a. Phase I Environmental Site Assessment, East Bay Redevelopment Project, March 14.
- 2007b. Supplemental Site Use History and Soil and Groundwater Sampling Clarifications, East Bay Redevelopment Site, August 3.
- GeoEngineers and PIONEER 2008. Remedial Investigation Work Plan, East Bay Redevelopment Site, October 22. As amended with January 30, 2009 replacement pages.





Vicinity Map  
Cleanup Action Plan  
East Bay Redevelopment Site

Figure 1



Soil Removal and Cover Locations  
Cleanup Action Plan  
East Bay Redevelopment Site

Figure 2

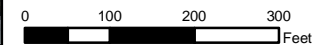


**Legend**

- Site Boundary
- Sidewalk
- Final Cap/Cover
- 1982 Fill (serves as soil cover)
- Soil Sample Location with a CL Exceedance that Will Remain Under the Cap/Cover
- Soil Sample Location that Will Not Have a Remaining CL Exceedance

Notes:  
- The maximum concentration at each sample location with an exceedance is labeled.

TPH-D and TPH-HO Combined CL = 4,700 mg/kg  
TPH-D and TPH-HO RL = 24,000 mg/kg



TPH-D and TPH-HO Combined Cleanup Level Exceedances That Will Remain  
Cleanup Action Plan  
East Bay Redevelopment Site

Figure 3



**Total cPAHs Cleanup Level Exceedances That Will Remain  
Cleanup Action Plan  
East Bay Redevelopment Site**

Figure 4



Total Dioxins/Furans Cleanup Level Exceedances That Will Remain  
Cleanup Action Plan  
East Bay Redevelopment Site

Figure 5



**EXHIBIT B**

**SITE LOCATION DIAGRAM**



**Legend**  
Site Boundary



Site Location Diagram  
East Bay Redevelopment Site

Exhibit B

## **EXHIBIT C**

### **SCHEDULE OF WORK AND DELIVERABLES**



## EXHIBIT C

### Schedule of Work and Deliverables (page 1 of 2)

Deliverable/Task	Schedule
<u>Engineering Design Report and Construction Plans and Specifications.</u> These documents shall also include the following plans in appendices: Erosion Control and Stormwater Pollution Prevention Plan, Spill Prevention, Control, and Countermeasure Plan, Soil Handling Plan, Soil Compliance Monitoring Plan, and a Traffic Control Plan.	Submitted to Ecology for review within 60 days of the effective date of the Agreed Order. Ecology's comments shall be incorporated and a revised plan shall be submitted to Ecology within 30 days of the date of Ecology's comment letter.
<u>Cleanup Implementation</u>  (remedial excavation and capping).	Within 30 days after Ecology's approval of the Engineering Design Report and Construction Plans and Specifications, issuance of the Construction Stormwater General NPDES Permit, and documentation that the substantive requirements of city of Olympia permits have been met.
<u>Cleanup Action Completion Report</u>	Submitted for Ecology review within 90 days of completion of cleanup action excavation and contaminated soil transport and disposal (whichever is later). Ecology's comments shall be incorporated and a revised report shall be submitted to Ecology within 30 days of the date of Ecology's comment letter.
<u>Operation and Maintenance Plan</u>	Submitted for Ecology review within 30 days of completion of cleanup action excavation, contaminated soil transport and disposal, and capping (whichever is later). Ecology's comments shall be incorporated and revised plan(s) shall be submitted to Ecology within 30 days of the date of Ecology's comment letter on the plan(s).

## EXHIBIT C

### Schedule of Work and Deliverables (page 2 of 2)

<b>Deliverable/Task (continued)</b>	<b>Schedule</b>
<u>Environmental Covenants</u>	Draft Environmental Covenants (ECs) shall be submitted to Ecology for review within 30 days of receipt of validated compliance soil sample results or the completion of cleanup action soil excavation, contaminated soil transport and disposal, and capping (whichever is later). After approval by Ecology, record the ECs for each of the parcels that comprise the Site with the office of the Thurston County Auditor within 10 days. The original recorded ECs shall be provided to Ecology within 30 days of the recording date.
<u>Financial Assurances</u>	Cost estimate to Ecology within 60 days of the effective date of the Order. Financial assurance coverage shall also be adjusted and reported to Ecology as required by Section VIII.P of the Order.
<u>Accounting of Settlement Costs</u>	An updated accounting of how the Port of Olympia has applied settlement funds to remedial action costs shall be provided to Ecology by October 30, 2017. If settlement funds remain, a subsequent update shall be provided by October 30, 2018.