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 AMENDMENT No. DE 14072

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

I. INTRODUCTION

Agreed Order No. DE 14072 (Order) entered into by the State of Washington, Department of Ecology (Ecology), the Port of Olympia (Port), the City of Olympia (City) and LOTT Clean Water Alliance (LOTT) on May 30, 2017, requires that the Potentially Liable Parties (PLPs) implement the Cleanup Action Plan. By this Amendment to Agreed Order No. DE 14072 (Amendment), Ecology revises the Cleanup Action Plan to require additional work be conducted at the Site. Ecology believes the actions required by this Amendment are in the public interest.

This Amendment does not attempt to recite all of the provisions of the Order. Provisions of the Order not specifically changed in this Amendment remain in full force and effect.

II. JURISDICTION

This Amendment is issued pursuant to the authority of RCW 70.105D.050(1).

III. AMENDMENTS

Work to be Performed, Section VII. of the Order is Amended:

The Order, Section VII. (Work to be Performed), is hereby amended to add the following requirement:

J. Additional Remedial Action Work

1. MTCA establishes that the PLPs are strictly, jointly, and severally liable for the remediation of the Site, as the Site is defined in the Order. To effectuate the work to be performed under this Amendment in the most efficient manner, the Port has elected to take responsibility for performing the additional remedial action, and Ecology concurs that the Port shall be responsible for implementing the action. Language in this Amendment and the exhibit attached hereto may reflect this arrangement. However, in the event that the Port should become unable to complete performance of the work required by this Amendment, Ecology shall provide written notice to the City and LOTT that the Port is unable to complete the work. Upon receipt of such notice, the City and LOTT shall then take on the responsibility to perform the remaining work, if any. The City and LOTT and Ecology shall meet to determine a schedule for completion of work required by this Amendment.

2. Location of additional remedial action. The location of the additional remedial action work is illustrated in Exhibit D. This attachment is an integral and enforceable part of this Amendment.

3. Additional Remedial Action Work Description. The additional remedial action is described more completely in the attached Exhibit E (Cleanup Action Plan Amendment). In general, the work consists of implementing engineering controls, excavating of soil during building construction and development, managing and sampling of contaminated soil, reusing soil under pavement, removal and off-site disposal of contaminated soil, and implementing institutional controls.

4. Schedule. The timeline of deliverables required for the additional remedial action work is included in Exhibit F.

Effective date: _____

PORT OF OLYMPIA

_____

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Executive Director
Port of Olympia
Olympia, Washington
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STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

_____

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EXHIBIT D

LOCATION OF THE ADDITIONAL REMEDIAL ACTION

EXHIBIT E

CLEANUP ACTION PLAN AMENDMENT

Cleanup Action Plan Amendment

East Bay Redevelopment Site (Lot 11)
Olympia, Washington
Agreed Order No. DE14072
Facility/Site No. 5785176
Cleanup Site ID: 407

JANUARY 2018

Table of Contents

Figures

Attachments

Acronyms and Abbreviations

Acronym	Explanation
bgs	Below Ground Surface
CAP	Cleanup Action Plan
CAPA	Cleanup Action Plan Amendment
City	City of Olympia
CL	Cleanup Level
COC	Constituent of Concern
cPAHs	Carcinogenic Polycyclic Aromatic Hydrocarbons
cy	Cubic yards
Dioxins/Furans	Chlorinated Dibenzo-p-dioxins and Chlorinated Dibenzofurans
ECs	Engineering Controls
Ecology	Washington State Department of Ecology
EDR	Engineering Design Report
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 Cleanup Action Plan (CAP) Amendment (CAPA) is to summarize the cleanup action proposed by the Washington State Department of Ecology (Ecology) for Lot 11 of the East Bay Redevelopment Model Toxics Control Act (MTCA) Site (Site) in accordance with Washington Administrative Code (WAC) 173-340-380(1)(a). The information presented in this draft CAPA is based on:

1. Agreed Order DE14072.
2. The original CAP for this Site which is included in Agreed Order DE14072.
3. The Site Remedial Investigation (RI)/Feasibility Study (FS) Report prepared in accordance with WAC 173-340-350 (PIONEER Technologies Corporation [PIONEER] 2016).
4. The Cleanup Action Completion Report (PIONEER 2018).

This CAPA was prepared pursuant to Agreed Order DE14072. 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 DE14072.

1.1 Background

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[1]. 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.

The East Bay Redevelopment Project consists of seven parcels (Parcel 2, 3, 4, 5, 6, 7, and 9) and a small area north of the seven parcels (Lot 1). For development purposes, Parcel 2 has been divided into Lot 10 and Lot 11. Lot 11 comprises 1.53 acres of the Site and is the subject of this CAPA (see Figures 2 through 4).

[1] 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).

1.2 Remedial Investigation

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), (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

1.3 Feasibility Study

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 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.

1.4 Cleanup Action

The selected cleanup action alternative for the Site presented in the CAP included in Agreed Order DE14072 was Targeted Soil Removal, Cover, and Controls. The cleanup action included the following remedial components:

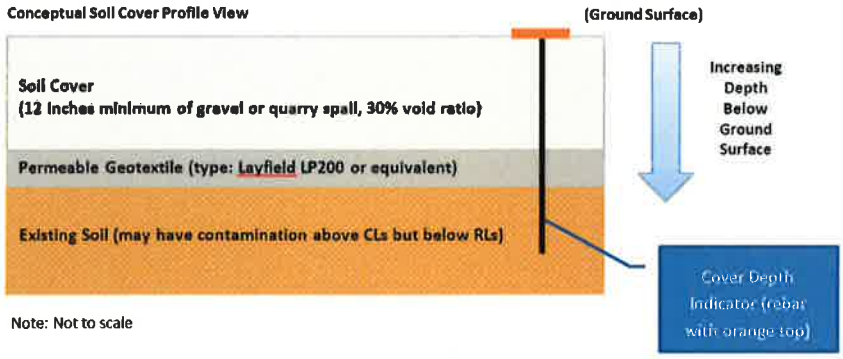
- The following soil sample locations (i.e., DP04, DP06, SVP-2SO, and MW24S) where concentrations exceeded the RLs were excavated and disposed of at Wasco Country Landfill in The Dalles, OR (see Figure 2). Note: These were the only RL exceedances that remained on Site prior to the implementation of the final remedial action (i.e., all other RL exceedances had previously been removed during IAs).

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

  - The RL excavations were backfilled using clean soil from an off-site, documented, upland borrow source approved by Ecology.

- A soil cover was installed in the portions of the Site not covered by 1982 fill. The soil cover consists of a permeable geotextile and at least 12 inches of clean soil from an off-site upland borrow source. Note: A suitable cap or soil cover already existed in Lot 4, Lot 5, the infrastructure corridor, and the existing landscaped area located between the Marine Drive sidewalk and Marine Drive. The areas covered with permeable geotextile and 12 inches of soil are shown on Figure 3 and a

conceptual cross section is presented below.



- The Port, City, and LOTT implemented and maintain the following institutional controls (ICs) on the Site, which:
    - 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 local, 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
    - 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

SECTION 2 – THE PROPOSED CLEANUP ACTION PLAN AMENDMENT

2.1 Description of the Proposed Cleanup Action Plan Amendment

Mixed use commercial and urban residential buildings are proposed for development on Lot 11 at the Site (see Figure 4). The development will be comprised of a multi-story main building oriented east/west along State Avenue NE and two townhome buildings oriented north and south of the main building (see Figure 4). The U-shaped orientation of the buildings will be anchored in the center of the U by a parking area that supports all of the buildings. These buildings will be pile supported, slab-on grade construction and will not have basements or crawl-spaces, thus reducing the overall volume of potentially contaminated soil that will require excavation due to development activities.

View of Proposed Westman Mill from Northwest (Jefferson Street NE)

View of Proposed Westman Mill from Southeast (State Ave NE)

The development proposed by this CAPA is consistent with the original cleanup action (i.e., Targeted Soil Removal, Cover, and Controls) that was implemented at the Site per Agreed Order DE14072 and will include the following remedial components:

- **Contaminated Soil Excavation** – The excavation of potentially contaminated soil will be performed to support installation of the building foundation (i.e., steel pile and grade beams), subsurface utilities (e.g., storm, sanitary sewer, water), two elevator shafts, Bayfilter™ vault, and other subsurface features. The anticipated maximum depths of excavation are summarized in the table below:

Subsurface Feature Type	Maximum Depth of Excavation Below Clean Soil Cover (feet below geotextile membrane)
Building Foundation (e.g., grade beams)	4.5
Utilities	8.1
Vaults (includes Bayfilter™ vault)	8.5
Elevator Shafts	8.0
Pavement	0.67
Landscaping	2.0

Based on preliminary excavation and grading estimates, approximately 3,000 to 4,000 cubic yards of soil will be excavated. This estimated volume includes the potentially contaminated soil as well as the clean soil cover material (which will be stockpiled separately). An Excavation Plan displaying subsurface feature footprints (excluding utilities) can be found in Attachment A. The final excavation extents/alignments and associated contaminated soil volumes for the installation of the above-mentioned subsurface features will be presented in the Engineering Design Report (EDR) for Lot 11 and design drawings.

- **Hardscape Surfaces (i.e., areas covered by buildings, parking areas, roads, sidewalks, or other paved outdoor areas)** – Impervious surfaces (e.g., asphalt, concrete) will be installed as part of construction in areas of the Site not covered by 1982 fill and identified on Figure 5. In the event that construction activities disturb the soil cover in these areas, the existing soil (i.e., clean cover and/or potentially contaminated soil located beneath the clean cover) will be (1) left in place or (2) temporarily stockpiled in separate locations on Site (i.e., clean soil cover will be stockpiled separately from the potentially contaminated soil) to determine the final disposition of the soil (see the discussion of stockpiles/stockpile sampling below). Areas on Site that will be covered by an impervious, hardscape surface do not require 12 inches of clean soil cover beneath the hardscape; however a permeable geotextile is required beneath the hardscape to demarcate that potentially contaminated soil is located beneath the geotextile. The soil beneath the hardscape surfaces will be graded and compacted (as necessary) to support the final impervious, hardscape surface.
- **Softscape Surfaces (i.e., areas not covered by an impervious, hardscape surface material, as identified above)** – The existing soil cover installed in these areas per the original cleanup action will be maintained. In the event that construction activities disturb the soil cover in these areas, the

soil cover (and permeable geotextile, if necessary) will be repaired/replaced/restored to ensure that the soil cover in these areas is comprised of a permeable geotextile fabric and at least 12 inches of clean soil from an off-site upland borrow source.

- **Other Remedial Components**
  - If groundwater is encountered during excavations that are performed as part of the construction process, dewatering procedures will be implemented. All groundwater generated from excavation dewatering will be disposed of in accordance with local, state and federal regulations regarding pretreatment.
  - Any temporary stockpiles of potentially contaminated soil that are 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 be collected and disposed of with other dewatering effluent.
  - Potentially contaminated soil that is stockpiled on Site will be sampled to determine the final disposition of the 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 hardscape surfaces and/or the soil cover. Stockpiles with COC concentrations that exceed the RLs will be disposed of at an off-site facility permitted to receive such waste (e.g., Wasco County Landfill in The Dalles, Oregon). 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 construction 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 ICs as described in Section 2.4.
  - Compliance monitoring will include qualitative EC assessments during construction activities, stockpile sampling, and long-term inspections of the hardscape surfaces, soil cover and ICs.

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

As stated in Section 2.1, potentially contaminated soil that is stockpiled on Site will be sampled to determine the final disposition of the 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 hardscape surfaces and/or the soil cover.

2.3 Site Contamination that Will Remain

All soil containing a COC concentration greater than a RL has been removed pursuant to the original cleanup action specified in Agreed Order DE14072. However, some soil CL exceedances (e.g., TPH-D and TPH-HO combined, total cPAHs, and total dioxins/furans) will remain at the Site underneath the hardscaped surfaces and/or soil cover. 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 complete exposure pathways, (2) these three COCs bind strongly to soil and have limited mobility, and (3) the hardscape surface/soil 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 WAC 173-340-440 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 local, 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
- 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

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, hardscaped surfaces, and soil cover will be prepared after construction has been completed.

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 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 permit 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 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) installing and maintaining a hardscape surface/soil cover over the entire Site, (2) implementing ECs during redevelopment construction activities, (3) implementing and maintaining ICs for perpetuity, and (4) conducting compliance monitoring.

Section 3 – Cleanup Implementation Schedule

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

Deliverable/Task	Schedule
Additional Remedial Action EDR and Additional Construction Plans/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 120 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.
Implementation of Additional Remedial Action Work	Within 90 days after Ecology's approval of the Additional EDR and Additional Construction Plans/ Specifications, issuance of the Construction Stormwater General NPDES Permit, and documentation that the substantive requirements of City of Olympia permits have been met.
Additional Remedial Action Completion Report	Submitted to Ecology for review within 90 days of completion of the remedial action as detailed in the CAP Amendment, Additional EDR, and Additional Construction Plans/Specifications. 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.
Operations and Maintenance Plan	Submitted to Ecology for review within 30 days of completion of the Additional Remedial Action Completion Report. 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

Section 4 – References

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.

PIONEER 2009. Port of Olympia East Bay Site: Interim Action Work Plan, May.

——— 2016. Remedial Investigation/Feasibility Study Report, East Bay Redevelopment Site, October.

——— 2018. Cleanup Action Completion Report, East Bay Redevelopment Site, January.

Figures

PIONEER TECHNOLOGIES CORPORATION

Vicinity Map
Cleanup Action Plan Amendment
East Bay Redevelopment Site

Figure 1

PIONEER TECHNOLOGIES CORPORATION

2017 Soil Removal and Cover Locations
Cleanup Action Plan Amendment
East Bay Redevelopment Site

Figure 2

PIONEER TECHNOLOGIES CORPORATION

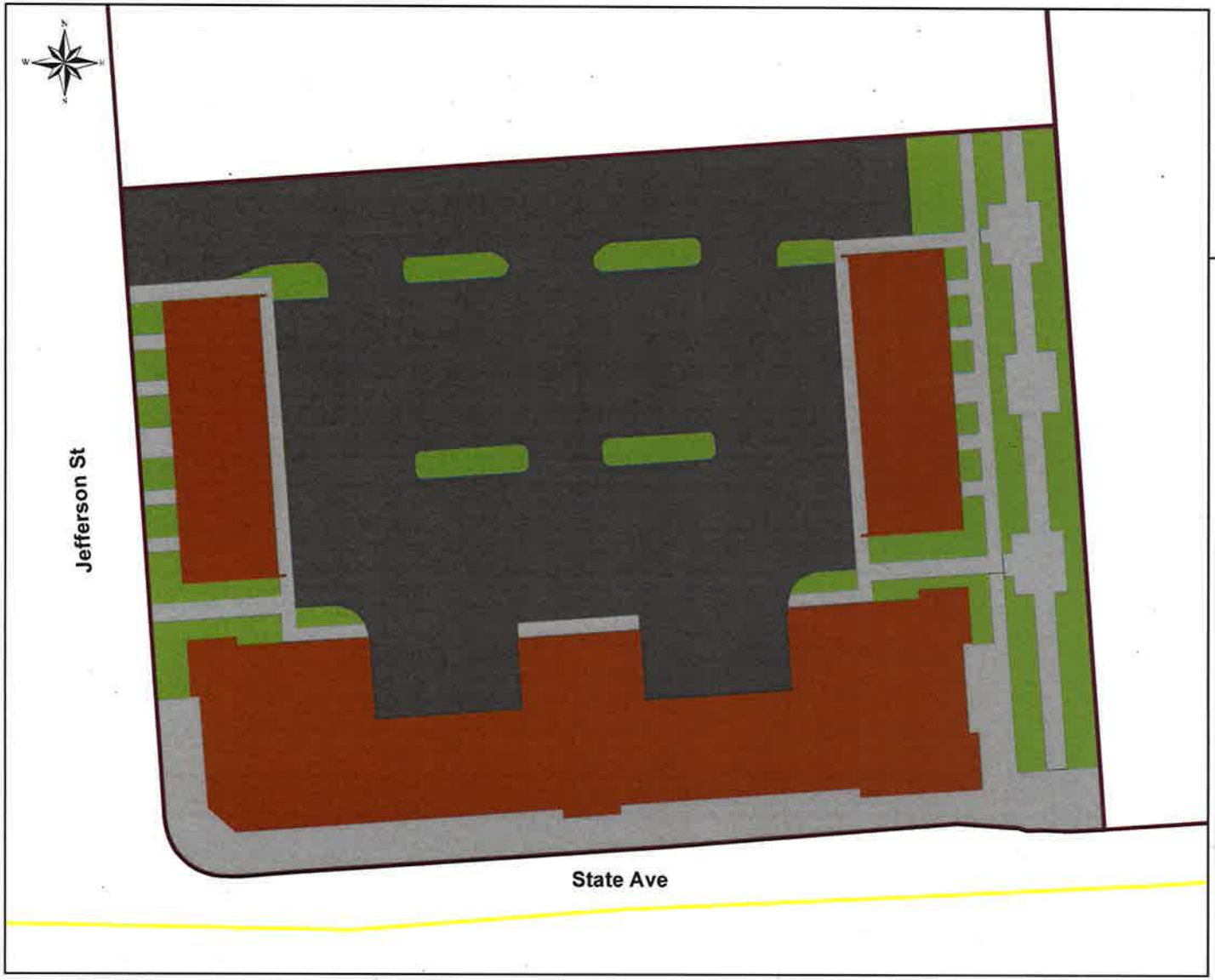
Soil Cover Areas per Original Agreed Order DE14072
Cleanup Action Plan Amendment
East Bay Redevelopment Site

Figure 3

PIONEER TECHNOLOGIES CORPORATION

Proposed Cap/Cover For Lot 11
Cleanup Action Plan Amendment
East Bay Redevelopment Site

Figure 4



Legend

- Site Boundary
- Lot Boundary (2018)

Lot 11 Layout

- Building
- Asphalt
- Hardscape
- Softscape

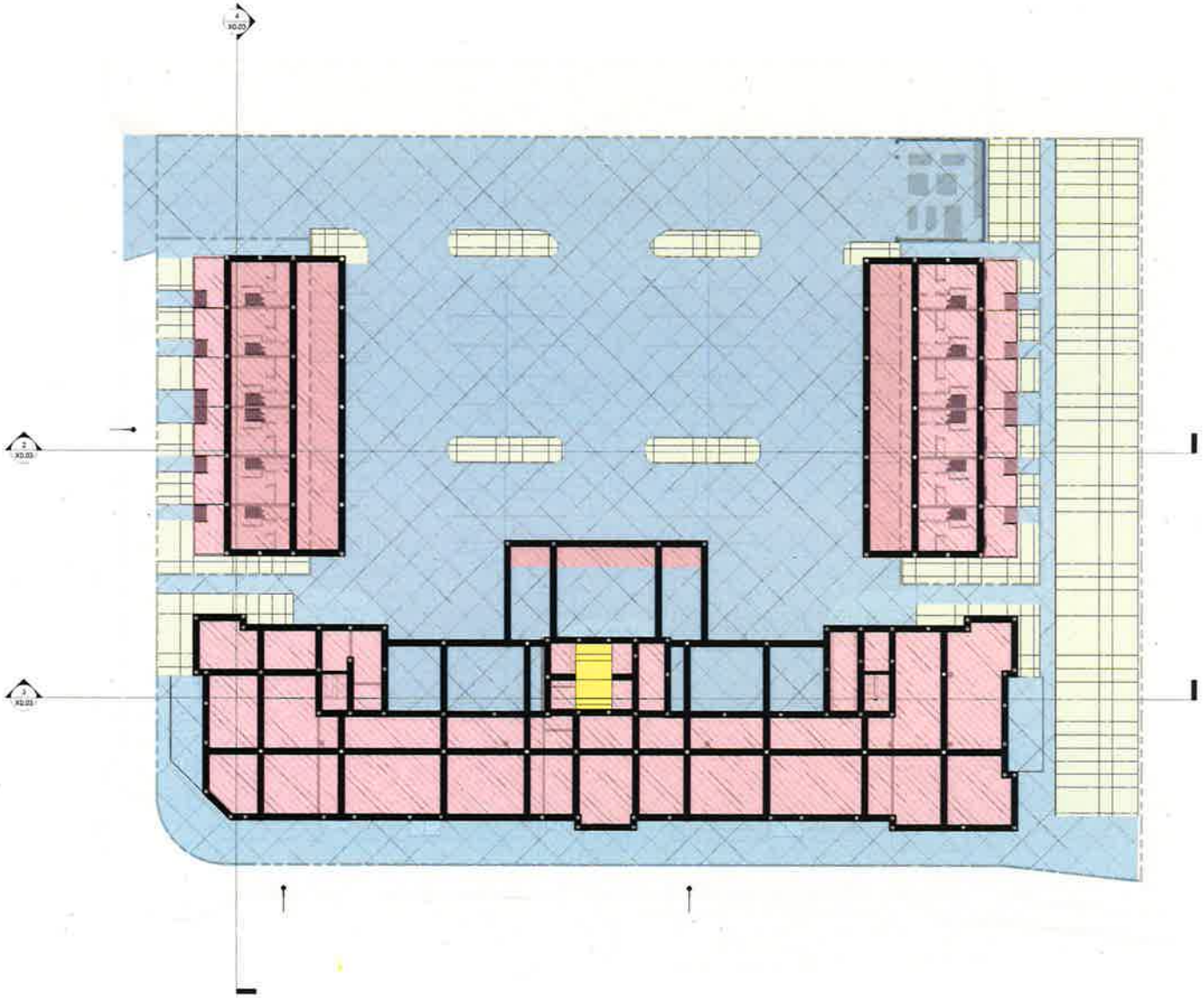
0 25 50 75 Feet

PIONEER TECHNOLOGIES CORPORATION

Lot 11 Land Use
Cleanup Action Plan Amendment
East Bay Redevelopment Site

Figure 5

Attachment A



8" PAVEMENT @ EXTEND OF DISTURBANCE

2'-0" LANDSCAPE @ EXTEND OF DISTURBANCE

1'-0" SLAB ON GRADE BEAM @ EXTEND OF DISTURBANCE

8'-0" ELEVATOR PIT @ EXTEND OF DISTURBANCE

3'-6" GRADEBEAM @ 1' BELOW EXTEND OF DISTURBANCE

1 EXCAVATION SITE PLAN
1/16" = 1'-0"

THOMAS
architecture studios

EAST BAY LOT A
WESTMAN MILL
510 STATE AVE OLYMPIA, WA. 98501

Project No: 1514
FOUNDATION
12/11/17

EXCAVATION PLAN

X0.02

EXHIBIT F

SCHEDULE OF DELIVERABLES

EXHIBIT F

Additional Remedial Action Schedule of Work and Deliverables (page 1 of 2)

Deliverable/Task	Schedule
Additional Remedial Action 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 120 days of the effective date of the Agreed Order Amendment. 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.
Implementation of Additional Remedial Action Work	Within 90 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.
Additional Remedial Action Completion Report	Submitted for Ecology review within 90 days of completion of the remedial action as detailed in the CAP Amendment, Additional Remedial Action EDR, and Construction Plans/Specifications. 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 the Additional Remedial Action Completion Report. 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 F

Additional Remedial Action Schedule of Work and Deliverables (page 2 of 2)

Deliverable/Task (continued)	Schedule
Environmental Covenants	Draft Environmental Covenants (ECs) shall be submitted to Ecology for review within 30 days of receipt the Additional Remedial Action Completion Report. After approval by Ecology, record the ECs for each of the parcels that comprise the additional remedial action area 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.