RESPONSIVENESS SUMMARY

University of Washington Tacoma Cleanup Site

March 17 – May 4, 2016 Public Comment Period

Agreed Order

Prepared by

Washington State Department of Ecology

Southwest Regional Office

Toxics Cleanup Program

Lacey, Washington

May 2016

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Contents

Site Information

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The Washington Department of Ecology is leading an effort to clean up groundwater contamination found under the University of Washington (UW) Tacoma campus. Ecology and the UW are entering into an agreed order (legal agreement) to further study the extent of contamination and develop a cleanup plan. Under the agreed order amendment, UW will:

- Describe the types and extent of contamination, and weigh cleanup options through a remedial investigation report/feasibility study.
- Choose cleanup methods through a draft cleanup action plan.
- Describe how cleanup will continue on the Howe Parcel through an interim action groundwater monitoring plan.

The agreed order also allows UW to use additional interim remedial actions, which partially address the cleanup of the site. If there is an opportunity for interim remedial actions, a public comment period will be held for the proposed actions.

The comment period for the agreed order amendment ran from March 17 – May 4, 2016. All public comments we received and Ecology's responses for these comments are summarized in this document.

Site Background

This area has a long industrial legacy that, in this case, caused polluted groundwater. As the UW campus expanded, more contamination was found on parcels within the campus footprint. Studies found groundwater polluted with:

- Petroleum hydrocarbons and benzene
- Trichloroethene (TCE)
- Perchloroethene (PCE)

Groundwater studies from 2007 to 2009 found two TCE plumes above state cleanup levels beneath the site. More studies showed PCE and petroleum hydrocarbon plumes in the groundwater (see map on page 5).

The site studies to date have identified, but not fully characterized, the extent of site

contamination. The investigation work called for under the new agreed order will help define the types and extent of site contamination.

A partial cleanup, called an interim action, began on the Howe Parcel of the UW Tacoma cleanup site in 2013. Groundwater there is contaminated with PCE. The cleanup of that contamination has started, and a long term monitoring plan is now in place.

Conditions were right at the Howe Parcel to treat groundwater in a way that minimizes impacts for students and area businesses.

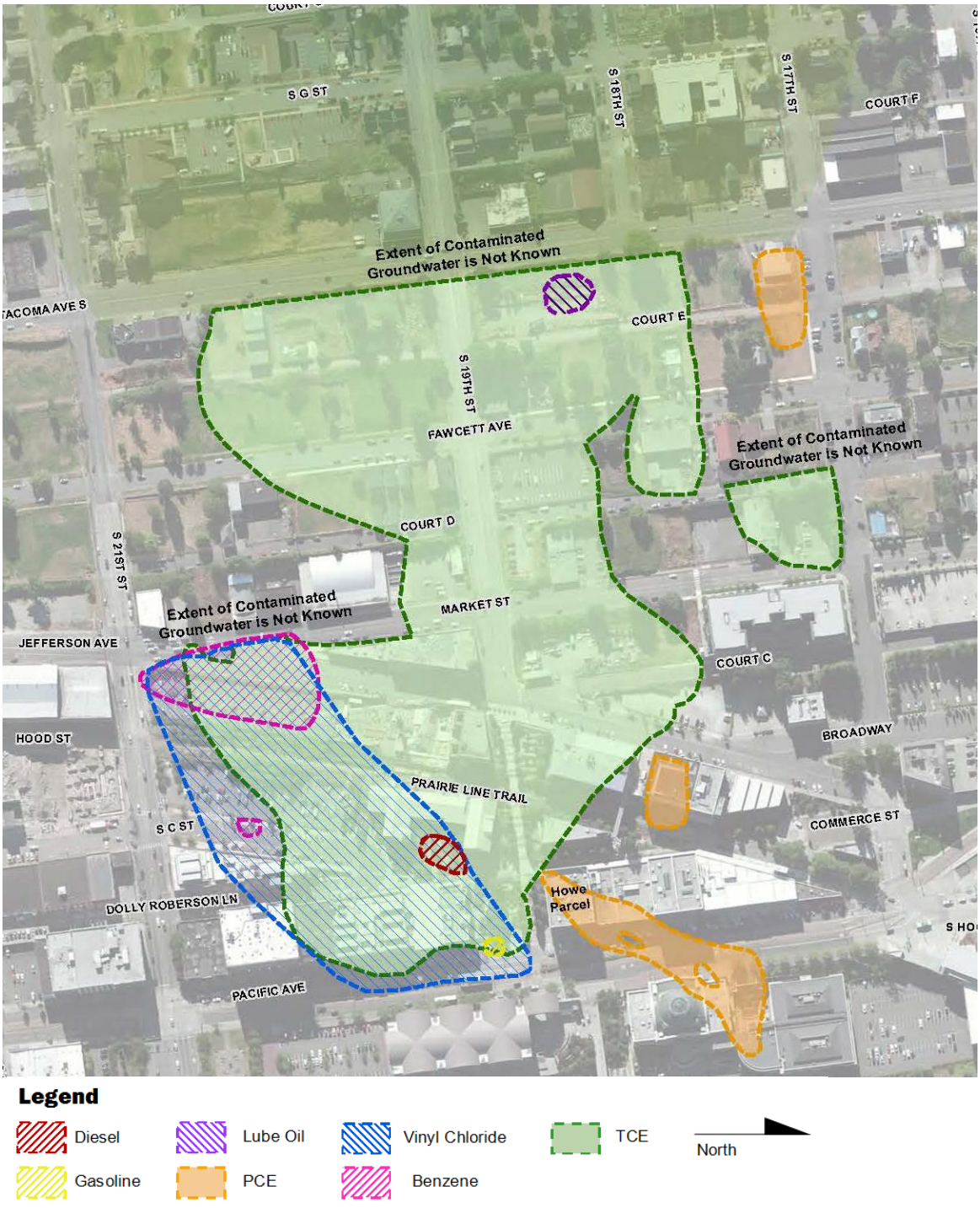
A slurry that breaks down solvents like the PCE found at the Howe Parcel was injected into the soil. Wells were also installed to monitor the success of the treatment over the long term, and alert us if more cleanup actions are necessary.

Different tools may be used to clean up the contamination at the UW Tacoma campus. However, the cleanup at the Howe Parcel can serve as a small scale example of the process for the UW Tacoma campus in general.

Under this agreed order, UW will continue with the interim actions detailed in the 2012 Interim Action Work Plan.

Site Location

The UW Tacoma site is about 46 acres between South 21st Street and South 17th Street, and between Pacific Avenue and Tacoma Avenue. It includes a mix of historical and current building development.



Comment #1: Chair Mann, Tacoma Central Neighborhood Council

This comment was received in an e-mail dated May 4, 2016

Subject: Agreed Order DE 11081 between Ecology and University of Washington Tacoma

Dear Mr. Coleman:

The Tacoma Central Neighborhood Council supports the investigation and cleanup action specified in this Agreed Order.

While the University's campus is outside the boundaries of the Tacoma Central Neighborhood, hazardous waste discovered anywhere in Tacoma can potentially and needlessly impact Tacoma residents. We're grateful for University of Washington's non-adversarial posturing as they embark on this mitigation process.

Compliments go to Ecology for providing excellent, accessible documentation of the cleanup on Ecology's website.

Sincerely,

Charles Mann, Chair

Tacoma Central Neighborhood Council

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Ecology Response

Thank you for your support of remediation efforts in Tacoma. Ecology is also grateful for the co-operative approach that UW has taken in negotiating the agreed order and in the development of an investigative work plan. Ecology is hopeful that we can also engage the City of Tacoma in the area-wide effort.

Comment #2: Director Malott, Citizens for a Healthy Bay

These comments were received in an e-mail dated May 4, 2016

Dear Mr. Coleman:

Thank you for providing Citizens for a Healthy Bay the opportunity to review and comment on the draft agreed order for the University of Washington Tacoma (UWT) Cleanup Site.

Citizens for a Healthy Bay (CHB) is a 25-year-old environmental organization whose mission is to represent and engage citizens in the cleanup, restoration and protection of Commencement Bay, the surrounding waters and natural habitat. We are a 501(c)3 nonprofit providing practical, solutions-based environmental leadership in the Puget Sound area. We work side-by-side with local citizens, businesses and governments to prevent water pollution and make our community more sustainable.

Staff and expert members of the Policy and Technical Advisory Committee with CHB have reviewed the draft agreed order, related materials and attended the open house/presentation on the site hosted by the WA Department of Ecology (Ecology).

CHB strongly supports the cleanup of contaminated sites on and around Commencement Bay, continuing the revitalization of Tacoma's waterfront. Our comments are outlined below.

Background

Ecology is leading the cleanup process for groundwater contamination found under the UWT campus in downtown Tacoma. Ecology and UW are entering into an agreed order (AO) to further study the extent of the contamination and develop a cleanup plan. Under the terms of the AO, UW accepts responsibility as a potentially liable party and agrees to work on remedial actions to clean up soil and groundwater at the site. The draft AO dictates how remedial investigation, interim actions and the selection of cleanup actions will be carried out. It also includes an expanded site footprint and focuses on the main environmental issue: area-wide groundwater contamination.

The industrial legacy of downtown Tacoma has caused groundwater and soil to be contaminated with petroleum hydrocarbons, polyaromatic hydrocarbons and volatile organic compounds. Currently, the extent of the contamination is unknown. Although risk to public health on campus is low, the mixing of contaminated groundwater with surface water in several known places suggests that contamination could be entering the Thea Foss Waterway. Sampling for contamination will begin this summer within the campus and further uphill to characterize the nature and extent of the contamination.

General Comments

There is a critical need for thorough cleanup of the UWT site contamination, which necessitates the development and implementation of a broader, more comprehensive study of the nature and extent of the contamination. While the plume data available shows a significant amount of historical contamination in the groundwater under the site, it is imperative for further sampling to provide us with more data. Increased data on the magnitude and types of the pollution is necessary for the UW, Ecology and other

stakeholders to ultimately perform a robust cleanup of the UWT site. This data should include the determination of the groundwater flow network around, below and through the site as well as identifying specific discharge sites to Commencement Bay.

Although the contamination does not pose a public health risk on the UWT campus, the fact that evidence suggests that the groundwater contamination may be threatening the completed cleanup of the Thea Foss Waterway is very concerning. This cleanup process should prioritize thorough cleanup of groundwater contamination, hindrance of interaction between contaminated groundwater and surface water, and prevention of risk to human health.

We look forward to working with the UW, Ecology and other stakeholders for a strong and timely cleanup as this process moves forward. The importance of remediation and monitoring to prevent the recontamination of the Thea Foss Waterway cannot be overstated. A healthy and vibrant Thea Foss Waterway and Commencement Bay is vitally important to the character and identity of our community.

Please contact our office if there are questions regarding our comments. Thank you for the opportunity to provide feedback on the draft AO for the UWT Cleanup Site.

Sincerely,

Melissa Malott
Executive Director, Citizens for a Healthy Bay

Ecology Response

The Background synopsis, as presented, is appreciated and accurately portrayed Ecology's intent and process under the agreed order (AO).

A broader and more comprehensive study of the nature and extent of contamination, both on and off–campus is the intent of the AO. Previous studies, although somewhat area-wide in nature, have been mostly focused on the contamination and sources within the UWT campus footprint. Under the AO, remedial investigation (RI) will continue on-campus where data gaps exist, but additional investigation outside the campus footprint will now be performed.

As data is developed regarding the contaminant flows, the investigation will also entail the more focused investigation of potential sources as they are discovered. The AO calls for actions up to and including development of a draft Cleanup Action Plan (CAP) that will identify contaminant sources and methods to eliminate them. Although it is expected that Interim Actions, both with respect to investigations and source control efforts at specific locations, will be performed, the Final Draft CAP will address the whole area of investigation.

In considering the potential for groundwater contamination entering the Thea Foss Waterway, the RI will call for, in addition to identifying the extent of contamination in the multiple aquifers, investigation of contamination that may find its way into utility corridors (particularly base flows within the area stormwater conveyances).

UWT has been working with Ecology while the AO has been pending to develop a work plan for the larger scope RI and expects to deliver it shortly after the AO is issued.