

**STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY**

In the Matter of Remedial Action by:

University of Washington

AGREED ORDER

No. DE 11081

TO: University of Washington

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## **I. INTRODUCTION**

The mutual objective of the State of Washington, Department of Ecology (Ecology) and the University of Washington under this Agreed Order (Order) No. DE 11081 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 University of Washington to: continue an interim action in accordance with the Howe Parcel Interim Action Work Plan, including drafting an Interim Action Cleanup Report; create and implement a Remedial Investigation Work Plan; prepare a Remedial Investigation Report and Feasibility Study; and prepare a preliminary draft Cleanup Action Plan. This Agreed Order No. DE 11081 fully supersedes and replaces Agreed Order No. DE 97HW-S238 and the First Amendment to Agreed Order No. DE 97HW-S238 (the "Prior Agreed Orders"). 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). This Order also satisfies the requirements of WAC 173-303-646 through -64630.

## **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 University of Washington agrees to undertake all actions required by the terms and conditions of this Order. No change in ownership or corporate status shall alter the University of Washington's responsibility under this Order. The University of Washington 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 or Facility: The term “site” or “facility” refers to the Arrcom, Inc. (WAD980664718) DWMU controlled by the University of Washington generally located at north of South 21<sup>st</sup> Street, south of South 17<sup>th</sup> Street, west of Pacific Avenue, and east of Tacoma Avenue South in Tacoma, WA; all property contiguous to the DWMU also controlled by the University of Washington; and all property, regardless of control or ownership, affected by release(s) or threatened release(s) of hazardous substances, including dangerous wastes and dangerous constituents, at and from these areas. The Site constitutes a Facility under RCW 70.105D.020(8). Based upon factors currently known to Ecology, the Site is generally described in the Site Diagram (Exhibit A).

B. Parties: Refers to the State of Washington, Department of Ecology and the University of Washington.

C. Potentially Liable Person (PLP): Refers to the University of Washington.

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. The terms “Agreed Order” or “Order” shall include all exhibits to this Order.

E. RCRA: Refers to the Resource Conservation and Recovery Act, 42 U.S.C. Sec. 6901 et. seq., as amended.

F. Area of Concern (AOC): Refers to any area of the Site where a release of dangerous constituents (including dangerous waste and hazardous substances) has occurred, is occurring, is suspected to have occurred, or threatens to occur.

G. Release: Refers to any intentional or unintentional spilling, leaking, pouring, emitting, emptying, discharging, injecting, pumping, escaping, leaching, dumping, or disposing of dangerous waste or dangerous constituents into the environment. It also includes the abandonment or discarding of barrels, containers, and other receptacles containing dangerous

waste or dangerous constituents and includes the definition of “release” in RCW 70.105D.020(32).

H. Compliance Monitoring: Refers to a remedial action that consists of monitoring as described in WAC 173-340-410.

I. Dangerous Constituent or Dangerous Waste Constituent: Refers to any constituent identified in WAC 173-303-9905 or 40 C.F.R. part 264, appendix IX; any constituent that caused a waste to be listed or designated as dangerous under the provisions of WAC 173-303; and any constituent defined as a hazardous substance under RCW 70.105D.020(13).

J. Dangerous Waste: Refers to any solid waste designated in WAC 173-303-070 through -100 as dangerous or extremely hazardous or mixed waste. Dangerous wastes are considered hazardous substances under RCW 70.105D.020(13).

K. Dangerous Waste Management Facility (DWMF): Used interchangeably in this document with the term “Facility” or “Site”.

L. Dangerous Waste Management Unit (DWMU): Refers to a contiguous area of land on or in which dangerous waste is placed, or the largest area in which there is a significant likelihood of mixing dangerous waste constituents in the same area, as defined in WAC 173-303-040.

M. Solid Waste Management Unit (SWMU): Refers to any discernible location at the Dangerous Waste Management Facility where solid wastes have been placed at any time, irrespective of whether the location was intended for the management of solid or dangerous waste. Such locations include any area at the Dangerous Waste Management Facility at which solid wastes, including spills, have been routinely and systematically released, and include regulated units as defined by WAC 173-303.

## V. FINDINGS OF FACT

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

A. The Site is comprised of multiple property parcels acquired according to a 1993 master plan to develop a downtown Tacoma Campus for the University of Washington as part of a statewide initiative to increase the accessibility of higher education to Washington citizens. The University of Washington has designated approximately forty-six acres encompassing the area generally described as north of South 21<sup>st</sup> Street, south of South 17<sup>th</sup> Street, west of Pacific Avenue, and east of Tacoma Avenue South for eventual campus expansion and development of the Tacoma Campus.

B. On November 19, 1980, facilities treating, storing, or disposing of hazardous waste became subject to RCRA permitting requirements, including interim status requirements pursuant to RCRA, 42 U.S.C. § 6925, and implementing regulations thereunder. Eventually, such facilities became subject to federally-authorized state regulations promulgated in WAC 173-303. Owners and operators of treatment, storage, and disposal facilities to which RCRA's permitting requirements apply are required to meet corrective action requirements for all releases of hazardous waste or constituents from any solid waste management facility, including beyond the facility boundary if necessary to protect human health and the environment, or if releases have migrated beyond the facility boundary. 42 U.S.C. § 6924(u), (v); WAC 173-303-64620(2).

C. Before acquisition by the University of Washington, a portion of the Site, the Cragle Parcel, was occupied by a RCRA dangerous waste management facility (DWMF), Arrcom, Inc. (WAD980664718). In December 1981, Arrcom, Inc., identified itself as managing the following quantities of dangerous wastes at the Cragle Parcel: 500,000 pounds of D001<sup>1</sup> waste; 25,000 pounds of F003 waste<sup>2</sup>; and 5,000 pounds of F005<sup>3</sup> waste. Arrcom, Inc., ceased operations on December 30, 1981.

<sup>1</sup>D001 – Ignitable characteristic waste.

<sup>2</sup>F003 – Spent nonhalogenated solvents: xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol.

<sup>3</sup>F005 – Spent nonhalogenated solvents: toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxyethanol, and 2-nitropropane.

D. In 1996, the United States Environmental Protection Agency performed a RCRA Facility Assessment (RFA) at the DWMF. The purpose of an RFA is to identify those areas at the DWMF where releases of hazardous substances may have occurred or may be occurring. Releases and/or potential releases of hazardous substances including, but not limited to, volatile organic compounds and total petroleum hydrocarbons from SWMUs and AOCs at the DWMF are documented in the RFA Report. As a result of the RFA Report and other information, Ecology has identified a series of Solid Waste Management Units (SWMUs) and Areas of Concern (AOCs) at the DWMF (Exhibit C).

E. On October 1, 1997, Ecology and the University of Washington entered into Agreed Order No. DE 97HW-S238 to conduct a Remedial Investigation (RI) at the Site, and prepare an RI Report, feasibility study (FS), draft Cleanup Action Plan and RCRA closure plan for all RCRA regulated units on the Cragle Parcel. In accordance with the Agreed Order's Schedule of Deliverables, the University of Washington submitted for Ecology's approval a RI Work Plan. Ecology approved the RI Work Plan in writing on July 23, 1998. The University of Washington began field work as directed by the RI Work Plan. Investigations conducted to date have identified, but not fully characterized, chlorinated solvent and petroleum hydrocarbon contamination present on University-controlled property within the campus expansion area now extending west beyond Market Street to Tacoma Avenue South and generally between South 21<sup>st</sup> and South 17<sup>th</sup> Streets. This includes known and separate trichloroethene, perchloroethylene, and petroleum hydrocarbon contaminant plumes in Site groundwater.

F. On March 19, 2013, Ecology and the University of Washington entered into the First Amendment to Agreed Order No. DE 97HW-S238 which required the University of Washington to conduct an interim action at the Site in accordance with an Interim Action Work Plan. Ecology made a State Environmental Policy Act (SEPA) threshold Determination of Non-Significance (DNS) regarding the interim action. Public comment on the First Amendment to Agreed Order No. DE 97HW-S238, the Interim Action Work Plan, and the SEPA determination was open from January 18, through February 28, 2013. After review of the public comments,

Ecology signed the First Amendment to Agreed Order No. DE 97HW-S238, and approved the Interim Action Work Plan as final. No changes were made to the SEPA DNS.

G. As the Tacoma Campus developed and additional environmental investigation was conducted, groundwater contamination (including tetrachloroethene, trichloroethene, benzene, vinyl chloride, and petroleum hydrocarbons) was identified on parcels within the campus expansion footprint.

H. Groundwater investigations conducted between 2007 and 2009 defined two distinct trichloroethene (TCE) groundwater contamination plumes (generally termed "East" and "West") extending eastwardly down gradient beneath University-owned property. TCE groundwater concentrations in parts of these plumes exceed MTCA Method A Groundwater Cleanup Standards. The full nature and extent of the groundwater contamination plumes have not been totally characterized and defined source(s) has not been located.

I. Additional groundwater investigations have defined perchloroethylene (PCE) (including PCE breakdown daughter products) and petroleum hydrocarbon groundwater contamination plumes, none of which is fully characterized with respect to nature and extent of contamination or sources, at this time.

J. The University of Washington prepared an Existing Information Summary Memorandum that describes general facility information, history, and conditions, past investigations including data collection and results, past remedial actions, conceptual contaminant migration pathways, ecological receptors, hazardous substances sources etc., in compliance with WAC 173-340-350 and WAC 173-204-560. The Existing Information Summary will be used to identify data gaps and will be used in the RI Work Plan and any proposed interim actions. This Existing Information Summary Memorandum was completed and given the title *2013 Environmental Subsurface Investigation, University of Washington Tacoma* dated December 19, 2014. Ecology received the document on January 15, 2015.



## VI. ECOLOGY DETERMINATIONS

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

A. The University of Washington is an “owner or operator” as defined in RCW 70.105D.020(22) of a “facility” as defined in RCW 70.105D.020(8).

B. 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.

C. Based upon credible evidence, Ecology issued a PLP status letter to the University of Washington, pursuant to RCW 70.105D.040, .020(26), and WAC 173-340-500. After providing for notice and opportunity for comment, reviewing any comments submitted, and concluding that credible evidence supported a finding of potential liability, Ecology issued a determination that the University of Washington is a PLP under RCW 70.105D.040 and notified the University of Washington of this determination by letter dated September 4, 1996.

D. Ecology may name additional PLPs for the Site when Ecology finds, based on credible evidence, that a person is liable under RCW 70.105D.040.

E. 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.

F. Under WAC 173-340-430, an interim action is a remedial action 1) that is technically necessary to reduce a threat to human health or the environment by eliminating or substantially reducing one or more pathways for exposure to a hazardous substance, 2) that corrects a problem that may become substantially worse or cost substantially more to address if the remedial action is delayed, or 3) that is needed to provide for completion of a site hazard assessment, remedial investigation/feasibility study, or design of a cleanup action plan. Based on

these circumstances, Ecology has determined that an interim action as detailed in the *Interim Action Work Plan, Howe Parcel, University of Washington* (2012) is warranted under WAC 173-340-430. Either party may propose additional interim actions under this Order. If the Parties are in agreement concerning the additional interim action, the Parties will follow the process in Section VII.E. If the Parties are not in agreement, Ecology reserves its authority to require additional interim action(s) under a separate order or other enforcement action under RCW 70.105D, or to undertake the interim action(s) itself.

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

Based on the Findings of Fact and Ecology Determinations, it is hereby ordered that the University of Washington take the following remedial actions at the Site and that these actions be conducted in accordance with WAC 173-340 unless otherwise specifically provided for herein:

A. The University of Washington will complete interim actions at the Howe Parcel as detailed in *Interim Action Work Plan, Howe Parcel, University of Washington*, URS Corporation, July 2012.

B. As further work is necessary to adequately characterize and understand the extent and nature of contamination at the Site, the University of Washington will draft an Agency Review RI Work Plan. After approval of the RI Work Plan by Ecology, this will be considered a Final RI Work Plan, and shall be implemented by the University of Washington. The University of Washington shall provide Ecology with an Agency Review Draft RI Report and an Agency Review Draft FS Report. These Reports may be submitted together as an Agency Review Draft RI/FS Report. After Ecology has approved the Draft RI and Draft FS Report(s) as Public Review Draft document(s), The University of Washington will prepare a preliminary Draft Cleanup Action Plan ("CAP"). These deliverables will be prepared in accordance with the "Scope of Work", which is incorporated by reference as an enforceable part of this Order and is presented in Exhibit D.

C. The remedial investigation schedule of work performance and list of deliverables will be described in the Final RI Work Plan and is incorporated by reference as an enforceable part of this Order.

D. All plans or other deliverables submitted by the University of Washington for Ecology review and approval under the Scope of Work and Schedule shall, upon Ecology's approval, become integral and enforceable parts of this Order with the exception of the preliminary draft Cleanup Action Plan. Preparation of a Final Cleanup Action Plan is not a part of this Order. Ecology intends to draft the Final Cleanup Action Plan, which will be implemented in a subsequent order, or consent decree.

E. If the Parties agree on an additional interim action under Section VI.F, the University of Washington shall prepare and submit to Ecology an Interim Action Work Plan, including a scope of work and schedule, by the date determined by Ecology. Ecology will provide public notice and opportunity to comment on the Interim Action Work Plan in accordance with WAC 173-340-600(16). The University of Washington shall not conduct an additional interim action until Ecology approves the Interim Action Work Plan. Upon approval by Ecology, the Interim Action Work Plan becomes an integral and enforceable part of this Order, and the University of Washington is required to conduct the interim action in accordance with the approved Interim Action Work Plan.

F. If Ecology determines that the University of Washington has failed to make sufficient progress or failed to implement any remedial actions required under this Agreed Order, or any additional interim actions approved under this Agreed Order, in whole or in part, Ecology may, after notice to the University of Washington, perform any or all portions of the remedial action or at Ecology's discretion allow the University of Washington opportunity to correct. The University of Washington 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).

G. Except where necessary to abate an emergency situation, the University of Washington 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. Remedial Action Costs**

The University of Washington shall pay to Ecology costs incurred by Ecology pursuant to this Agreed 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). The University of Washington 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, the project or activity that was being addressed and the amount of time spent by involved staff members on the project or activity. A general statement of work performed will be included with the itemized statement. 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.

In addition to other available relief, pursuant to RCW 19.16.500, Ecology may utilize a collection agency to recover unreimbursed remedial action costs.

### **B. Designated Project Coordinators**

The project coordinator for Ecology is:

Marv Coleman, Cleanup Project Manager, Inspector  
Washington Department of Ecology  
Toxics Cleanup Program  
Southwest Regional Office  
P.O. Box 47775  
Olympia, WA 98504-7775  
360-407-6259

The project coordinator for the University of Washington is:

David M. Ogrodnik, Environmental Project Engineer  
Facilities Services, Campus Engineering  
Plant Operations Annex 6  
P.O. Box 352165 – University of Washington  
Seattle, WA 98195-2165  
206-221-4285

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 University of Washington, 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 geological and hydrogeological 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 University of Washington shall notify Ecology in writing of the identity, and a contact person, for the Company which employs any engineer(s), 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 University of Washington either owns, controls, or has 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 University of Washington's 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 University of Washington. Within 30 days of the effective date of this Order, the University of Washington shall identify in writing to Ecology property owned or controlled by the University where access is limited due to terms of a lease. Within 60 days of the effective date of this Order, the University of Washington shall secure access rights for Ecology at those identified properties. The University of Washington shall insure a lease for property within the Site includes authorization for Ecology's access to the property in accordance with this section. The University of Washington shall make all reasonable efforts to secure access rights for those properties within the Site not owned and/or controlled by the University of Washington 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 University of Washington 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) and shall use

reasonable efforts not to disturb any occupants of the Site. 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 University of Washington 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 University of Washington shall allow Ecology and/or its authorized representative to take split or duplicate samples of any samples collected by the University of Washington pursuant to implementation of this Order. The University of Washington shall notify Ecology seven (7) days in advance of any sample collection or work activity at the Site. Ecology shall, upon request, allow the University of Washington and/or its 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.E (Access), Ecology shall notify the University of Washington 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**

A Public Participation Plan is required for this Site. Ecology shall review any existing Public Participation Plan to determine its continued appropriateness and whether it requires

amendment, or if no plan exists, Ecology shall develop a Public Participation Plan alone or in conjunction with the University of Washington.

Ecology shall maintain the responsibility for public participation at the Site. However, the University of Washington 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 major meetings with the interested public and local governments. Likewise, Ecology shall notify the University of Washington prior to the issuance of all press releases and fact sheets, and before major meetings with the interested public and local governments. For all press releases, fact sheets, meetings, and other outreach efforts by the University of Washington that do not receive prior Ecology approval, the University of Washington 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. Citizens for a Healthy Bay  
535 Dock Street, Suite 213  
Tacoma, WA 98402  
(253) 383-2429



- b. UW Tacoma Library  
Tioga Library Building  
Circulation Desk  
Permanent Reserve  
1907 Jefferson Avenue, Box 358460  
Tacoma, WA 98402-8460  
(253) 692-4440
- c. Ecology's Southwest Regional Office  
300 Desmond Drive  
Lacey, WA 98503  
(360) 407-6300

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 University of Washington 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 University of Washington 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 University of Washington 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 University of Washington withholds any requested records based on an assertion of privilege, the University of Washington 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 University of Washington elects to invoke dispute resolution the University of Washington 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 University of Washington has 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 University of Washington's 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 University of Washington 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.E (Work to be Performed) or initiating enforcement under Section X (Enforcement).

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

1. 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 University of Washington 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 University of Washington 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 University of Washington;

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 University of Washington.

3. Ecology shall act upon any written request for extension in a timely fashion. Ecology shall give the University of Washington 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. 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 University of Washington. The University of Washington shall submit a written request for amendment to Ecology for approval. Ecology shall indicate its approval or disapproval in writing and in a timely manner

after the written request for amendment is received. If the amendment to this Order represents a substantial change, Ecology will provide public notice and opportunity to comment. Reasons for the disapproval of a proposed amendment to this Order shall be stated in writing. If Ecology does not agree to a proposed amendment, 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 University of Washington to cease such activities for such period of time as it deems necessary to abate the danger. The University of Washington shall immediately comply with such direction.

In the event the University of Washington 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, the University of Washington may cease such activities. The University of Washington 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 University of Washington shall provide Ecology with documentation of the basis for the determination or cessation of such activities. If Ecology disagrees with the University of Washington's cessation of activities, it may direct the University of Washington to resume such activities.

If Ecology concurs with or orders a work stoppage pursuant to this section, the University of Washington's 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 University of Washington 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 University of Washington regarding remedial actions required by this Order, provided the University of Washington complies 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 and 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 University of Washington does not admit to any liability for the Site. Although the University of Washington is committing to conducting the work required by this Order under the terms of this Order, the University of Washington expressly reserves 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 University of Washington without provision for continued implementation of all requirements of this Order and implementation of any remedial actions required by this Order.

Prior to the University of Washington's transfer of any fee interest or ground lease interest in all or any portion of the Site, and during the effective period of this Order, the University of Washington shall provide a copy of this Order to any prospective purchaser, ground lessee, transferee, assignee, or other successor in such interest; and, at least thirty (30) days prior to any transfer, the University of Washington shall notify Ecology of said transfer. Upon transfer of any such interest, the University of Washington 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 University of Washington pursuant to this Order shall be done in accordance with all applicable federal, state, and local requirements, including requirements to obtain necessary permits, 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 Exhibit C.

2. Pursuant to RCW 70.105D.090(1), the University of Washington is 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 University of Washington shall comply with the substantive requirements of such permits or approvals. The exempt permits or approvals and the applicable substantive requirements of those permits or approvals, as they are known at the time of the execution of this Order, have been identified in Exhibit B.

The University of Washington has 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 University of Washington determines 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 University of

Washington shall be responsible to contact the appropriate state and/or local agencies. If Ecology so requires, the University of Washington 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 University of Washington and on how the University of Washington must meet those requirements. Ecology shall inform the University of Washington in writing of these requirements. Once established by Ecology, the additional requirements shall be enforceable requirements of this Order. The University of Washington shall not begin or continue the remedial action potentially subject to the additional requirements until Ecology makes its final determination.

3. 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 University of Washington 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.

**O. Hold Harmless**

Each Party shall be responsible for the actions and inactions of itself and its own officers, employees, and agents acting within the scope of their authority. Ecology and the University, as state agencies, are insured under the self-insurance program of Washington State. The University of Washington shall defend, protect, and hold Ecology harmless from and against any and all claims, suits, or actions arising from the negligent acts or omissions of the University's employees and/or authorized representatives while performing under the terms of this Order.

**IX. SATISFACTION OF ORDER**

The provisions of this Order shall be deemed satisfied upon the University of Washington's receipt of written notification from Ecology that the University of Washington has



completed the remedial activity required by this Order, as amended by any modifications, and that the University of Washington has 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.

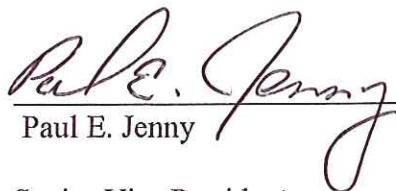
2. Civil penalties of up to twenty-five thousand dollars (\$25,000) per day for each day it refuses to comply.

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: \_\_\_\_\_

**UNIVERSITY OF WASHINGTON**

  
\_\_\_\_\_  
Paul E. Jenny

Senior Vice President  
Planning and Management  
University of Washington  
Telephone: 260-616-3119

**STATE OF WASHINGTON,  
DEPARTMENT OF ECOLOGY**

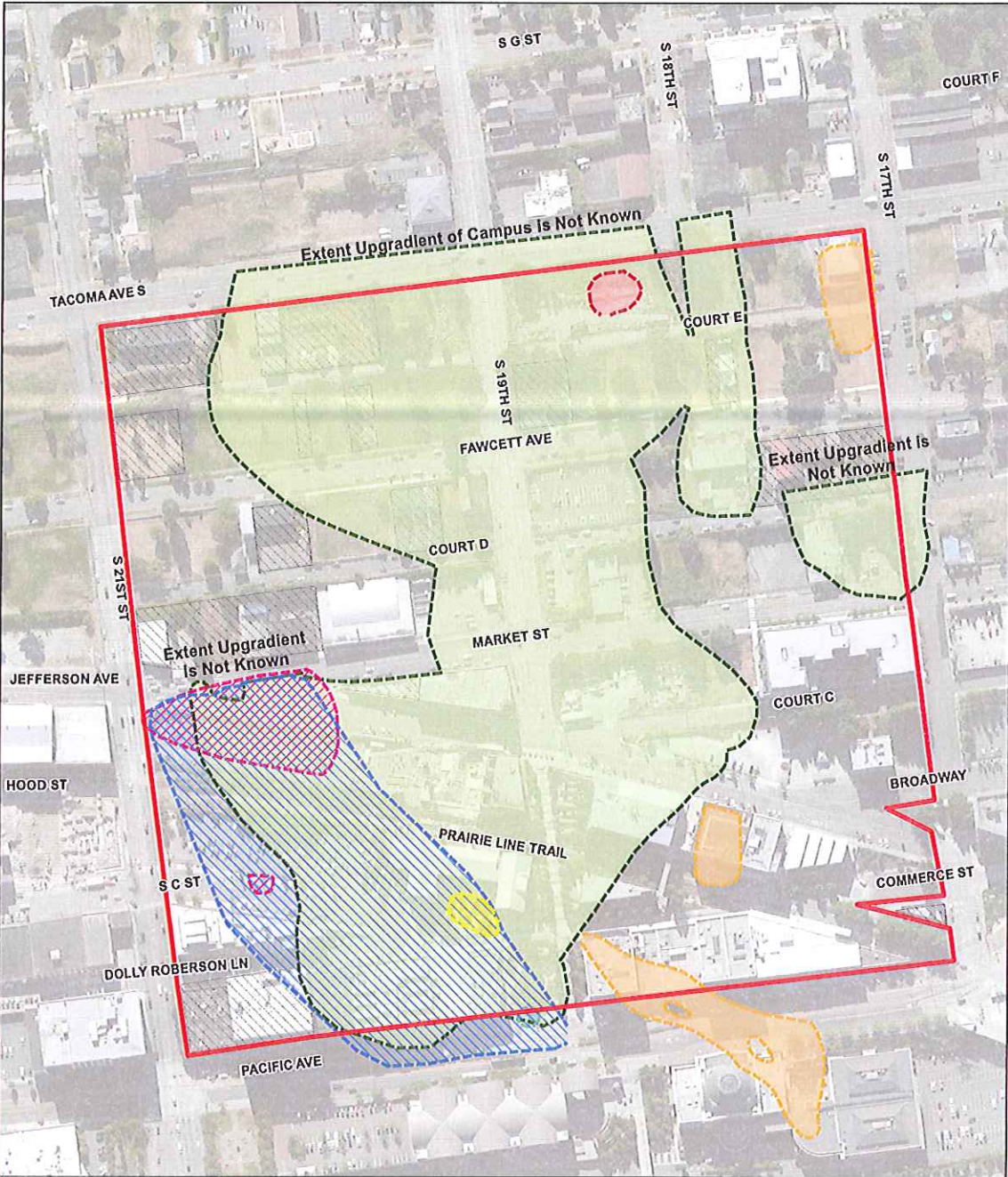
\_\_\_\_\_  
Rebecca S. Lawson, P.E., LHG

Section Manager  
Toxics Cleanup Program  
Southwest Regional Office  
Telephone: 360-407-6241



**EXHIBIT A**  
**SITE DIAGRAM**

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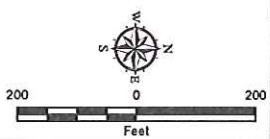
Min. Reviewed: 17 August 2016. [www.gis.compendium.com](http://www.gis.compendium.com)  
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 Office: TAC

- Legend**
- UWTC Master Plan Campus Boundary
  - Parcel Not Owned by UW But Within Master Plan Boundary
  - Approximate Lateral Extent of Contaminated Groundwater**
  - TCE
  - PCE
  - Vinyl Chloride
  - Benzene
  - Diesel-Range Petroleum Hydrocarbons
  - Gasoline-Range Petroleum Hydrocarbons
  - Lube Oil-Range Petroleum Hydrocarbons

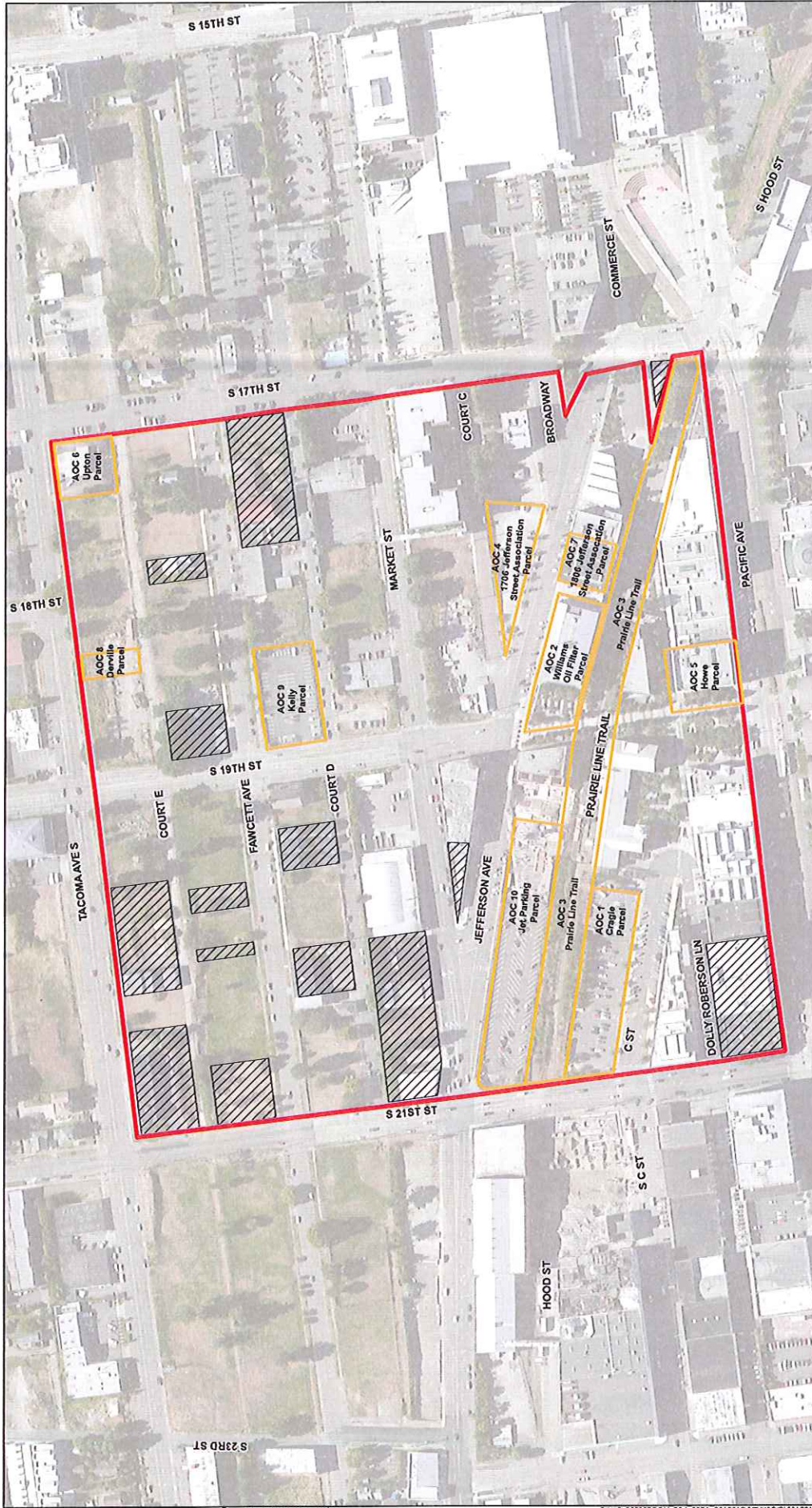
**Site Specific Screening Levels (Groundwater):**

- PCE = 5 µg/L
- TCE = 1.5 µg/L
- Vinyl Chloride = 0.29 µg/L
- Gasoline = 600 µg/L
- Diesel = 500 µg/L
- Lube Oil = 500 µg/L
- Benzene = 2.4 µg/L

Notes:  
 TCE = Trichloroethane  
 PCE = Tetrachloroethane  
 µg/L = microgram per liter  
 1. The locations of all features shown are approximate.  
 2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.  
 Projection: NAD 1983 HARN StatePlane Washington South FIPS 4502 Feet



<b>Approximate Estimated Extent of Groundwater Contaminant Plumes</b>	
University of Washington – Tacoma Tacoma, Washington	
<b>GEOENGINEERS</b>	<b>Figure 1</b>



**Notes:**  
 AOC = Area of Concern  
 AOC 11 Not shown (other UW locations - groundwater) is campus wide  
 AOC 12 Not shown (other UW locations - soil) is campus wide  
 1. The locations of parcels shown are as provided.  
 2. The location of parcels shown are as provided to assist in showing features discussed in an attached document.  
 GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.  
 Projector: NAD 1983 HARN StatePlane Washington South FIPS 4602 Feet

**Legend**  
 [Red Line] UW Tacoma Master Plan Campus Boundary  
 [Yellow Square] AOC Location  
 [Hatched Box] Parcel Not Currently Owned by UW But Located Within Master Plan Boundary

**Area of Concern Location Map**  
 Agreed Order Remedial Investigation Work Plan  
 University of Washington - Tacoma  
 Tacoma, Washington

**GEOENGINEERS**

**Figure 2**

## **EXHIBIT B**

### **APPLICABLE PERMITS AND SUBSTANTIVE REQUIREMENTS**

- Chapter 70.105D RCW (Model Toxics Control Act), and Chapter 173-340 WAC (MTCA Regulations);
- Chapter 70.105 RCW (Washington State Hazardous Waste Management Act), and Chapter 173-303 WAC (State Dangerous Waste Regulations);
- Chapter 90.48 RCW (State Water Pollution Control Act);
- Chapter 70.95 RCW (Solid Waste Management – Reduction and Recycling);
- Chapter 70.94 RCW (Washington Clean Air Act);
- Chapter 173-160 RCW (Minimum Standards for Construction and Maintenance of Wells);
- Chapter 43.21C RCW (State Environmental Policy Act), and Chapter 197-11 WAC (State Environmental Policy Act Rules);
- Washington Industrial Safety and Health Act (WISHA);
- Puget Sound Air Pollution Control Agency (Regulation I and III);
- City of Tacoma Municipal Code – Chapter 70 (Uniform Building Code – Excavation and Grading);
- City of Tacoma Municipal Code – Chapter 12.08 City Code (Provisions for Acceptance for Discharges to Sewer System); and
- Tacoma Pierce County Health Department (Waste Disposal Authorization).

## EXHIBIT C

### AREAS OF CONCERN (AOC)

AOC 1	Cragle Parcel	residual petroleum contamination and benzene
AOC 2	Williams Oil Filter Parcel	residual petroleum contamination
AOC 3	Prairie Line Trail	residual petroleum, cPAHs, lead
AOC 4	1706 Jefferson St Assoc. Parcel	residual petroleum contamination
AOC 5	Howe Parcel	residual PCE contamination
AOC 6	Upton	PCE contamination
AOC 7	1806 Jefferson St Assoc. Parcel	PCE Contamination
AOC 8	Derville Parcel	petroleum contamination/suspect UST
AOC 9	Kelly Parcel	motorcycle shop
AOC 10	Jet Parking Parcel	petroleum and benzene
AOC 11	Other UWT locations	shallow and deep groundwater aquifers- PCE, TCE, and petroleum hydrocarbons
AOC 12,	other UWT locations	soil containing cPAHs, petroleum, and metals

## EXHIBIT D

### SCOPE OF WORK AND SCHEDULES\*

- 1.a. Howe Parcel: Complete interim actions at the Howe Parcel in accordance with *Interim Action Work Plan, Howe Parcel, University of Washington*, URS Corporation, July 2012.
- b. Schedule: Complete the work at the Howe Parcel in accordance with the schedule set forth in the Interim Action Work Plan, Section 7, Table 7-1.
- 2.a. RI Work Plan: Prepare and provide to Ecology an Agency Review RI Work Plan that identifies the expected work to be performed to characterize the nature and extent of contamination that is present at the Site. The RI Work Plan shall include a proposed schedule of activities and a list of deliverables. The RI Work Plan shall incorporate activities still in process that are left over from the previous remedial investigation work under Agreed Order DE 97HW-S238. The Agency Review RI Work Plan shall include information obtained in the *2013 Environmental Subsurface Investigation Report* that describes groundwater and soil contamination, vapor intrusion, and the creation of potential migration pathways.
- b. Schedule: Provide the Agency Review RI Work Plan to Ecology within 180 days of the effective date of this Order. The University of Washington will implement the RI Work Plan after Ecology approves it as a Final RI Work Plan.
- 3.a. RI/FS: Provide to Ecology an Agency Review Draft RI Report and FS in accordance with WAC 173-340-350. These reports may be submitted together as an Agency Review Draft RI/FS Report. Upon Ecology's approval, the documents will be considered Public Review RI Report and FS (or a joint Public Review RI/FS Report).
- b. Schedule: The Agency Review Draft RI Report and FS (or the joint Agency Review RI/FS Report) shall be provided to Ecology within four years of the effective date of this Order.
- 4.a. Preliminary Draft CAP: Provide to Ecology a preliminary Draft Cleanup Action Plan in accordance with WAC 173-340-380.
- b. Schedule: A Preliminary Draft CAP shall be provided to Ecology within 120 days of Ecology's approval of the Public Review RI/FS Report.

\*Note Section VIII.I of this Order.

