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**STATE OF WASHINGTON
KING COUNTY SUPERIOR COURT**

STATE OF WASHINGTON,
DEPARTMENT OF ECOLOGY,

Plaintiff,

v.

CITY OF BOTHELL,

Defendant.

NO. 22-2-20573-3

CONSENT DECREE RE: ULTRA
CUSTOM CARE CLEANERS

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1 **I. INTRODUCTION**

2 1. The mutual objective of the State of Washington, Department of Ecology
3 (Ecology) and the City of Bothell (Defendant) under this Consent Decree (Decree) is to provide
4 for remedial action at a facility where there has been a release or threatened release of hazardous
5 substances. This Decree requires Defendant to implement the Cleanup Action Plan for the Ultra
6 Custom Care Cleaners Site (CAP) (Exhibit B).

7 2. Ecology has determined that these actions are necessary to protect human health
8 and the environment.

9 3. The Complaint in this action is being filed simultaneously with this Decree. An
10 Answer has not been filed, and there has not been a trial on any issue of fact or law in this case.
11 However, the Parties wish to resolve the issues raised by Ecology’s Complaint. In addition, the
12 Parties agree that settlement of these matters without litigation is reasonable and in the public
13 interest, and that entry of this Decree is the most appropriate means of resolving these matters.

14 4. By signing this Decree, the Parties agree to its entry and agree to be bound by its
15 terms.

16 5. By entering into this Decree, the Parties do not intend to discharge non-settling
17 parties from any liability they may have with respect to matters alleged in the Complaint. The
18 Parties retain the right to seek reimbursement, in whole or in part, from any liable persons for
19 sums expended under this Decree.

20 6. This Decree shall not be construed as proof of liability or responsibility for any
21 releases of hazardous substances or cost for remedial action nor an admission of any facts;
22 provided, however, that Defendant shall not challenge the authority of the Attorney General and
23 Ecology to enforce this Decree.

24 7. The Court is fully advised of the reasons for entry of this Decree, and good cause
25 having been shown:

26 Now, therefore, it is HEREBY ORDERED, ADJUDGED, AND DECREED as follows:

1 **II. JURISDICTION**

2 1. This Court has jurisdiction over the subject matter and over the Parties pursuant
3 to the Model Toxics Control Act (MTCA), RCW 70A.305.

4 2. Authority is conferred upon the Washington State Attorney General by
5 RCW 70A.305.040(4)(a) to agree to a settlement with any potentially liable person (PLP) if,
6 after public notice and any required public meeting, Ecology finds the proposed settlement
7 would lead to a more expeditious cleanup of hazardous substances. RCW 70A.305.040(4)(b)
8 requires that such a settlement be entered as a consent decree issued by a court of competent
9 jurisdiction.

10 3. Ecology has determined that a release or threatened release of hazardous
11 substances has occurred at the Site that is the subject of this Decree.

12 4. Ecology has given notice to Defendant of Ecology's determination that
13 Defendant is a PLP for the Site, as required by RCW 70A.305.020(26) and WAC 173-340-500.

14 5. The actions to be taken pursuant to this Decree are necessary to protect public
15 health and the environment.

16 6. This Decree has been subject to public notice and comment.

17 7. Ecology finds that this Decree will lead to a more expeditious cleanup of
18 hazardous substances at the Site in compliance with the cleanup standards established under
19 RCW 70A.305.030(2)(e) and WAC 173-340.

20 8. Defendant has agreed to undertake the actions specified in this Decree and
21 consents to the entry of this Decree under MTCA.

22 **III. PARTIES BOUND**

23 1. This Decree shall apply to and be binding upon the Parties to this Decree, their
24 successors and assigns. The undersigned representative of each party hereby certifies that they
25 are fully authorized to enter into this Decree and to execute and legally bind such party to comply
26 with this Decree. Defendant agrees to undertake all actions required by the terms and conditions

1 of this Decree. No change in ownership or corporate status shall alter Defendant's responsibility
2 under this Decree. Defendant shall provide a copy of this Decree to all agents, contractors, and
3 subcontractors retained to perform work required by this Decree, and shall ensure that all work
4 undertaken by such agents, contractors, and subcontractors complies with this Decree.

5 **IV. DEFINITIONS**

6 1. Unless otherwise specified herein, all definitions in RCW 70A.305.020 and
7 WAC 173-340 shall control the meanings of the terms in this Decree.

8 A. Site: The Site is referred to as the Ultra Custom Care Cleaners Site,
9 Cleanup Site ID 3172. The Site is generally located at 18304 Bothell Way NE, Bothell,
10 WA, and consists of the Source Property and downgradient properties. The Site
11 constitutes a facility under RCW 70A.305.020(8). The Site is defined by where a
12 hazardous substance, other than a consumer product in consumer use, has been deposited,
13 stored, disposed of, or placed, or otherwise come to be located

14 B. Consent Decree or Decree: Refers to this Consent Decree and each of the
15 exhibits to this Decree. All exhibits are integral and enforceable parts of this Consent
16 Decree.

17 C. Defendant: Refers to the City of Bothell (City).

18 D. Parties: Refers to the State of Washington, Department of Ecology and
19 Defendant.

20 **V. FINDINGS OF FACT**

21 1. Ecology makes the following findings of fact without any express or implied
22 admissions of such facts by Defendant.

23 A. Based upon factors currently known to Ecology, the Site is generally
24 located at 18304 Bothell Way NE, Bothell, WA. The Site, which consists of the Source
25 Property and affected downgradient properties, is shown in the Site Location Diagram
26 (Exhibit A).

1 B. Between approximately 1950 and 2000, the Source Property was used by
2 a series of entities for various commercial uses, including dry cleaning operations.
3 Commercial operations on the downgradient properties included gas stations and a car
4 rental business. Contamination at the Site is related to historical dry cleaning operations.
5 Soil and groundwater samples have been collected at the Site and chlorinated solvents,
6 such as tetrachloroethene (PCE), have been detected at levels that represent a risk to
7 human health and the environment and require remedial action.

8 C. A series of investigations have been performed by the City. In July 2021,
9 the City completed a Remedial Investigation and Feasibility Study.

10 D. Release(s) and/or potential release(s) of hazardous substances occurred at
11 the Site. The following hazardous substances at the Site have been detected at
12 concentrations above MTCA cleanup levels: in groundwater, PCE and breakdown
13 products of PCE (trichloroethene, cis-1,2,-dichloroethene and vinyl chloride) and arsenic;
14 and in soil, PCE and gasoline-range organics (GRO). The GRO contamination is from a
15 separate source and does not co-mingle with Ultra solvent groundwater plume. These
16 hazardous substances have been, and may continue to be, released at the Site into the
17 environment including soil and groundwater.

18 E. Ecology has assigned the Site an overall priority ranking of 3 pursuant to
19 MTCA.

20 F. As documented in the Cleanup Action Plan (CAP) (Exhibit B), Ecology
21 has chosen a final cleanup action to be implemented at the Site.

22 G. The City is a current “owner or operator” of the Site (as that term is
23 defined in RCW 70A.305.020(22)), and is a potentially liable person.

24 VI. WORK TO BE PERFORMED

25 1. This Decree contains a program designed to protect human health and the
26 environment from the known release, or threatened release, of hazardous substances at, on, or

1 from the Site. All remedial action(s) conducted by Defendant at the Site shall be done in
2 accordance with WAC 173-340.

3 2. The Defendant shall implement the CAP (Exhibit B) in accordance with the
4 Scope of Work and Schedule attached to this Decree (Exhibit C). Among other remedial actions,
5 the CAP requires Defendant to:

6 A. Excavate approximately 550 cubic yards of soil with PCE exceeding cleanup
7 levels from the Source Property where the former dry cleaning operation was located.

8 B. Transport the excavated soil to a licensed disposal facility.

9 C. Place sulfidated micro-zero-valent iron (S-MZVI) at the bottom of the
10 area of deepest excavation to facilitate destruction of VOCs through chemical reaction
11 and to stimulate biodegradation of contaminants in groundwater.

12 D. Backfill the excavations with clean fill and restore the surface with gravel
13 or asphalt.

14 E. In situ treatment of groundwater by injection of targeted barriers
15 consisting of a mixture of liquid-activated carbon and S-MZVI in areas where
16 groundwater exceeds cleanup levels to adsorb and facilitate destruction of cVOCs in
17 groundwater.

18 F. Develop and implement a Construction Compliance Monitoring Plan and
19 a Long-term Compliance Monitoring Plan, including implementation of contingency
20 actions if needed, to ensure the protectiveness of the cleanup action.

21 G. Monitor groundwater for natural attenuation of contaminants following
22 excavation and injection until cleanup levels are achieved.

23 H. Implement contingency remedial actions as needed pursuant to the
24 Cleanup Action Plan.
25
26

1 I. Maintain institutional controls, if necessary, in the form of a
2 Contaminated Soil and Groundwater Protocol for City-owned rights-of-way (ROW) to
3 control exposures to soil contamination left in place beneath the City ROW.

4 3. All plans or other deliverables submitted by Defendant for Ecology's review and
5 approval under the CAP (Exhibit B) or Scope of Work and Schedule (Exhibit C) shall, upon
6 Ecology's approval, become integral and enforceable parts of this Decree.

7 4. If Defendant learns of a significant change in conditions at the Site, including but
8 not limited to a statistically significant increase in contaminant and/or chemical concentrations
9 in soil and groundwater, Defendant, within seven (7) days of learning of the change in condition,
10 shall notify Ecology in writing of said change and provide Ecology with any reports or records
11 (including laboratory analyses, sampling results) relating to the change in conditions.

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

16 A. Within sixty (60) days of the effective date of this Decree, Defendant shall
17 submit to Ecology for review and approval an estimate of the costs associated with the
18 operation and maintenance of the remedial action at the Site that it will incur in carrying
19 out the terms of this Decree. Within sixty (60) days after Ecology approves the
20 aforementioned cost estimate, Defendant shall provide proof of financial assurances
21 sufficient to cover those costs in a form acceptable to Ecology.

22 B. Defendant shall adjust the financial assurance coverage and provide
23 Ecology's project coordinator with documentation of the updated financial assurance for:

24 i. Inflation, annually, within thirty (30) days of the anniversary date
25 of the entry of this Decree; or if applicable, the modified anniversary date
26 established in accordance with this section, or if applicable, ninety (90) days after

1 the close of Defendant's fiscal year if the financial test or corporate guarantee is
2 used.

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

11 C. The Financial Assurance Officer for Ecology shall work with the project
12 coordinators to review and approve financial assurance coverage pursuant to this Decree
13 and make determinations on any adjustments necessary based on the annual reporting.
14 As of the execution date of this Decree, Ecology's Financial Assurance Officer is Joanna
15 Richards, (360) 485-5992 or joanna.richards@ecy.wa.gov.

16 6. As detailed in the CAP, institutional controls are required at the Site. The City
17 has implemented a Contaminated Soil and Groundwater Protocol for City-owned rights-of-way.
18 Additional institutional controls, such as environmental covenants, will not be required under
19 current land use but may be required if current land use changes before the cleanup action is
20 complete.

21 7. Unless otherwise directed by Ecology, Defendant shall submit to Ecology written
22 quarterly Progress Reports that describe the actions taken during the previous quarter to
23 implement the requirements of this Decree. All Progress Reports shall be submitted by the tenth
24 (10th) day of the quarter in which they are due after the effective date of this Decree. Unless
25 otherwise specified in writing by Ecology, Progress Reports and any other documents submitted
26

1 pursuant to this Decree shall be sent by electronic mail to Ecology's project coordinator. The
2 Progress Reports shall include the following:

3 A. A list of on-site activities that have taken place during the quarter.

4 B. Description of any sample results which deviate from the norm.

5 C. Detailed description of any deviations from required tasks not otherwise
6 documented in project plans or amendment requests.

7 D. Description of all deviations from the Scope of Work and Schedule
8 (Exhibit C) during the current quarter and any planned deviations in the upcoming
9 quarter.

10 E. For any deviations in schedule, a plan for recovering lost time and
11 maintaining compliance with the schedule.

12 F. All raw data (including laboratory analyses) received during the previous
13 quarter (if not previously submitted to Ecology), together with a detailed description of
14 the underlying samples collected.

15 G. A list of planned activities for the upcoming quarter.

16 8. Except in the case of an emergency, Defendant agrees not to perform any
17 remedial actions at the Site outside the scope of this Decree without prior written approval of
18 Ecology. In the case of an emergency, Defendant must notify Ecology of the event and remedial
19 action(s) as soon as practical, but no later than twenty-four (24) hours after discovery of the
20 emergency.

21 VII. DESIGNATED PROJECT COORDINATORS

22 1. The project coordinator for Ecology is:

23 Sunny Becker
24 15722 Dayton Avenue N
25 Shoreline, WA 98133
26 (425) 457-3842
sunny.becker@ecy.wa.gov

1
2 2. The project coordinator for Defendant is:

3 Ryan Roberts
4 Supervising Civil Engineer
5 City of Bothell Public Works Department
6 18415 101st Avenue NE
7 Bothell, WA 98011
8 425-806-6823
9 ryan.roberts@bothellwa.gov

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

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

20 **VIII. PERFORMANCE**

21 1. Except as otherwise provided for by RCW 18.43 and 18.220, all geologic and
22 hydrogeologic work performed pursuant to this Decree shall be under the supervision and
23 direction of a geologist or hydrogeologist licensed by the State of Washington or under the direct
24 supervision of an engineer registered by the State of Washington.

25 2. Except as otherwise provided for by RCW 18.43.130, all engineering work
26 performed pursuant to this Decree shall be under the direct supervision of a professional engineer
registered by the State of Washington.

1 3. Defendant shall make all reasonable efforts to secure access rights for those
2 properties within the Site not owned or controlled by Defendant where remedial activities or
3 investigations will be performed pursuant to this Decree.

4 4. Ecology or any Ecology authorized representative shall give reasonable notice
5 before entering any Site property owned or controlled by Defendant unless an emergency
6 prevents such notice. All Parties who access the Site pursuant to this section shall comply with
7 any applicable health and safety plan(s). Ecology employees and their representatives shall not
8 be required to sign any liability release or waiver as a condition of Site property access.

9 **X. SAMPLING, DATA SUBMITTAL, AND AVAILABILITY**

10 1. With respect to the implementation of this Decree, Defendant shall make the
11 results of all sampling, laboratory reports, and/or test results generated by it or on its behalf
12 available to Ecology by submitting data as detailed in this section. Pursuant to WAC 173-340-
13 840(5), all sampling data shall be submitted to Ecology in both printed and electronic formats in
14 accordance with paragraph 7 of Section VI (Work to be Performed), Ecology's Toxics Cleanup
15 Program Policy 840 (Data Submittal Requirements), and/or any subsequent procedures specified
16 by Ecology for data submittal.

17 2. If requested by Ecology, Defendant shall allow Ecology and/or its authorized
18 representative to take split or duplicate samples of any samples collected by Defendant pursuant
19 to the implementation of this Decree. Defendant shall notify Ecology seven (7) days in advance
20 of any sample collection or work activity at the Site. Ecology shall, upon request, allow
21 Defendant and/or its authorized representative to take split or duplicate samples of any samples
22 collected by Ecology pursuant to the implementation of this Decree, provided that doing so does
23 not interfere with Ecology's sampling. Without limitation on Ecology's rights under Section IX
24 (Access), Ecology shall notify Defendant prior to any sample collection activity unless an
25 emergency prevents such notice.
26

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

4 **XI. ACCESS TO INFORMATION**

5 1. The City shall provide to Ecology, upon request, copies of all records, reports,
6 documents, and other information (including records, reports, documents, and other information
7 in electronic form) (hereinafter referred to as “Records”) within the City’s possession or control
8 or that of their contractors or agents relating to activities at the Site or to the implementation of
9 this Decree, including, but not limited to, sampling, analysis, chain of custody records, manifests,
10 trucking logs, receipts, reports, sample traffic routing, correspondence, or other
11 documents/information regarding the work. The City shall also make available to Ecology, for
12 purposes of investigation, information gathering, or testimony, their employees, agents, or
13 representatives with knowledge of relevant facts concerning the performance of the work.

14 2. Nothing in this Decree is intended to waive any right the City may have under
15 applicable law to limit disclosure of Records protected by the attorney work-product privilege
16 and/or the attorney-client privilege. If the City withholds any requested Records based on an
17 assertion of privilege, the City shall provide Ecology with a privilege log specifying the Records
18 withheld and the applicable privilege. No Site-related data collected pursuant to this Decree shall
19 be considered privileged, including: (1) any data regarding the Site, including, but not limited
20 to, all sampling, analytical, monitoring, hydrogeologic, scientific, chemical, radiological,
21 biological, or engineering data, or the portion of any other record that evidences conditions at or
22 around the Site; or (2) the portion of any Record that Respondents are required to create or
23 generate pursuant to this Order.

24 3. Notwithstanding any provision of this Order, Ecology retains all of its
25 information gathering and inspection authorities and rights, including enforcement actions
26 related thereto, under any other applicable statutes or regulations.

1 **XII. RETENTION OF RECORDS**

2 During the pendency of this Decree, and for ten (10) years from the date this Decree is
3 no longer in effect as provided in Section XXVI (Duration of Decree), Defendant shall preserve
4 all records, reports, documents, and underlying data in its possession relevant to the
5 implementation of this Decree and shall insert a similar record retention requirement into all
6 contracts with project contractors and subcontractors. Upon request of Ecology, Defendant shall
7 make all records available to Ecology and allow access for review within a reasonable time.

8 **XIII. TRANSFER OF INTEREST IN PROPERTY**

9 1. No voluntary conveyance or relinquishment of title, easement, leasehold, or other
10 interest in any portion of the Site shall be consummated by Defendant without provision for
11 continued operation and maintenance of any containment system, treatment system, and/or
12 monitoring system installed or implemented pursuant to this Decree.

13 2. Prior to Defendant’s transfer of any interest in all or any portion of the Site, and
14 during the effective period of this Decree, Defendant shall provide a copy of this Decree to any
15 prospective purchaser, lessee, transferee, assignee, or other successor in said interest; and, at
16 least thirty (30) days prior to any transfer, Defendant shall notify Ecology of said transfer. Upon
17 its transfer of any interest, Defendant shall notify all transferees of the restrictions on the
18 activities and uses of the property under this Decree and incorporate any such use restrictions
19 into the transfer documents.

20 **XIV. RESOLUTION OF DISPUTES**

21 1. In the event that Defendant elects to invoke dispute resolution, Defendant must
22 utilize the procedure set forth below.

23 A. Upon the triggering event (receipt of Ecology’s project coordinator’s
24 written decision or an itemized billing statement), Defendant has fourteen (14) calendar
25 days within which to notify Ecology’s project coordinator in writing of its dispute
26 (Informal Dispute Notice).

1 B. The Parties' project coordinators shall then confer in an effort to resolve
2 the dispute informally. The parties shall informally confer for up to fourteen (14)
3 calendar days from receipt of the Informal Dispute Notice. If the project coordinators
4 cannot resolve the dispute within those fourteen (14) calendar days, then within seven
5 (7) calendar days Ecology's project coordinator shall issue a written decision (Informal
6 Dispute Decision) stating: the nature of the dispute; the Defendant's position with regards
7 to the dispute; Ecology's position with regards to the dispute; and the extent of resolution
8 reached by informal discussion.

9 C. Defendant may then request regional management review of the dispute.
10 Defendant must submit this request (Formal Dispute Notice) in writing to the Northwest
11 Region Toxics Cleanup Section Manager within seven (7) calendar days of receipt of
12 Ecology's Informal Dispute Decision. The Formal Dispute Notice shall include a written
13 statement of dispute setting forth: the nature of the dispute; the disputing Party's position
14 with respect to the dispute; and the information relied upon to support its position.

15 D. The Section Manager shall conduct a review of the dispute and shall issue
16 a written decision regarding the dispute (Decision on Dispute) within thirty (30) calendar
17 days of receipt of the Formal Dispute Notice.

18 E. If Defendant finds Ecology's Regional Section Manager's decision of the
19 disputed matter unacceptable, Defendant may then request final management review of
20 that decision. Defendant must submit this request (Final Review Request) in writing to
21 the Toxics Cleanup Program Manager within seven (7) calendar days of Defendant's
22 receipt of the Decision on Dispute. The Final Review Request shall include a written
23 statement of dispute setting forth: the nature of the dispute; the disputing Defendant's
24 position with respect to the dispute; and the information relied upon to support its
25 position.
26

1 F. Ecology's Toxics Cleanup Program Manager shall conduct a review of
2 the dispute and shall issue a written decision regarding the dispute (Final Decision on
3 Dispute) within thirty (30) calendar days of receipt of the Final Review Request. The
4 Toxics Cleanup Program Manager's decision shall be Ecology's final decision on the
5 disputed matter.

6 2. If Ecology's Final Decision on Dispute is unacceptable to Defendant, Defendant
7 has the right to submit the dispute to the Court for resolution. The Parties agree that one judge
8 should retain jurisdiction over this case and shall, as necessary, resolve any dispute arising under
9 this Decree. Under RCW 70A.305.070, Ecology's investigative and remedial decisions shall be
10 upheld unless they are arbitrary and capricious.

11 3. The Parties agree to only utilize the dispute resolution process in good faith and
12 agree to expedite, to the extent possible, the dispute resolution process whenever it is used.
13 Where either party utilizes the dispute resolution process in bad faith or for purposes of delay,
14 the other party may seek sanctions.

15 4. Implementation of these dispute resolution procedures shall not provide a basis
16 for delay of any activities required in this Decree, unless Ecology agrees in writing to a schedule
17 extension or the Court so orders.

18 5. In case of a dispute, failure to either proceed with the work required by this
19 Decree or timely invoke dispute resolution may result in Ecology's determination that
20 insufficient progress is being made in preparation of a deliverable, and may result in Ecology
21 undertaking the work under Section XXIII (Implementation of Remedial Action).

22 **XV. AMENDMENT OF DECREE**

23 1. The Parties may agree to minor changes to the work to be performed without
24 formally amending this Decree. Minor changes will be documented in writing by Ecology.

25 2. Substantial changes to the work to be performed shall require formal amendment
26 of this Decree. This Decree may only be formally amended by a written stipulation among the

1 Parties that is entered by the Court, or by order of the Court. Ecology will provide its written
2 consent to a formal amendment only after public notice and opportunity to comment on the
3 formal amendment. Such amendment shall become effective upon entry by the Court.
4 Agreement to amend the Decree shall not be unreasonably withheld by any party.

5 3. When requesting a change to the Decree, Defendant shall submit a written request
6 to Ecology for approval. Ecology shall indicate its approval or disapproval in writing and in a
7 timely manner after the written request is received. If Ecology determines that the change is
8 substantial, then the Decree must be formally amended. Reasons for the disapproval of a
9 proposed change to this Decree shall be stated in writing. If Ecology does not agree to the
10 requested change, the disagreement may be addressed through the dispute resolution procedures
11 described in Section XIV (Resolution of Disputes).

12 **XVI. EXTENSION OF SCHEDULE**

13 1. Defendant's request for an extension of schedule shall be granted only when a
14 request for an extension is submitted in a timely fashion, generally, at least thirty (30) days prior
15 to expiration of the deadline for which the extension is requested, and good cause exists for
16 granting the extension. All extensions shall be requested in writing. The request shall specify:

17 A. The deadline that is sought to be extended.

18 B. The length of the extension sought.

19 C. The reason(s) for the extension.

20 D. Any related deadline or schedule that would be affected if the extension
21 were granted.

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

25 A. Circumstances beyond the reasonable control and despite the due
26 diligence of Defendant including delays caused by unrelated third parties or Ecology,

1 such as (but not limited to) delays by Ecology in reviewing, approving, or modifying
2 documents submitted by Defendant.

3 B. A shelter in place or work stoppage mandated by state or local
4 government order due to public health and safety emergencies.

5 C. Acts of God, including fire, flood, blizzard, extreme temperatures, storm,
6 or other unavoidable casualty.

7 D. Endangerment as described in Section XVII (Endangerment).

8 3. However, neither increased costs of performance of the terms of this Decree nor
9 changed economic circumstances shall be considered circumstances beyond the reasonable
10 control of Defendant.

11 4. Ecology shall act upon any Defendant's written request for extension in a timely
12 fashion. Ecology shall give Defendant written notification of any extensions granted pursuant to
13 this Decree. A requested extension shall not be effective until approved by Ecology or, if
14 required, by the Court. Unless the extension is a substantial change, it shall not be necessary to
15 amend this Decree pursuant to Section XV (Amendment of Decree) when a schedule extension
16 is granted.

17 5. At Defendant's request an extension shall only be granted for such period of time
18 as Ecology determines is reasonable under the circumstances. Ecology may grant schedule
19 extensions exceeding ninety (90) days only as a result of one of the following:

20 A. Delays in the issuance of a necessary permit which was applied for in a
21 timely manner.

22 B. Other circumstances deemed exceptional or extraordinary by Ecology.

23 C. Endangerment as described in Section XVII (Endangerment).

24 **XVII. ENDANGERMENT**

25 1. In the event Ecology determines that any activity being performed at the Site
26 under this Decree is creating or has the potential to create a danger to human health or the

- 1 A. Criminal liability.
- 2 B. Liability for damages to natural resources.
- 3 C. Any Ecology action, including cost recovery, against PLPs not a party to
- 4 this Decree.

5 2. Pursuant to RCW 70A.305.040(4)(c), the Court shall amend this Covenant Not

6 to Sue if factors not known at the time of entry of this Decree are discovered and present a

7 previously unknown threat to human health or the environment.

8 3. Reopeners: Ecology specifically reserves the right to institute legal or

9 administrative action against Defendant to require it to perform additional remedial actions at

10 the Site and to pursue appropriate cost recovery, pursuant to RCW 70A.305.050, under any of

11 the following circumstances:

12 A. Upon Defendant's failure to meet the requirements of this Decree.

13 B. Failure of the remedial action to meet the cleanup standards identified in

14 the CAP (Exhibit B).

15 C. Upon Ecology's determination that remedial action beyond the terms of

16 this Decree is necessary to abate an imminent and substantial endangerment to human

17 health or the environment.

18 D. Upon the availability of information previously unknown to Ecology

19 regarding Site factors including the nature, quantity, migration, pathway, or mobility of

20 hazardous substances, and Ecology's determination, in light of this information, that

21 further remedial action is necessary at the Site to protect human health or the

22 environment.

23 E. Upon Ecology's determination that additional remedial actions are

24 necessary to achieve cleanup standards within the reasonable restoration time frame set

25 forth in the CAP.

26

1 4. Except in the case of an emergency, prior to instituting legal or administrative
2 action against Defendant pursuant to this section, Ecology shall provide Defendant with fifteen
3 (15) calendar days' notice of such action.

4 **XIX. CONTRIBUTION PROTECTION**

5 1. With regard to claims for contribution against Defendant, the Parties agree that
6 Defendant is entitled to protection against claims for contribution for matters addressed in this
7 Decree as provided by RCW 70A.305.040(4)(d).

8 **XX. INDEMNIFICATION**

9 1. Defendant agrees to indemnify and save and hold the State of Washington, its
10 employees, and agents harmless from any and all claims or causes of action (1) for death or
11 injuries to persons, or (2) for loss or damage to property to the extent arising from or on account
12 of acts or omissions of Defendant, its officers, employees, agents, or contractors in entering into
13 and implementing this Decree. However, Defendant shall not indemnify the State of Washington
14 nor save nor hold its employees and agents harmless from any claims or causes of action to the
15 extent arising out of the negligent acts or omissions of the State of Washington, or the employees
16 or agents of the State, in entering into or implementing this Decree.

17 **XXI. COMPLIANCE WITH APPLICABLE LAWS**

18 1. *Applicable Law.* All actions carried out by Defendant pursuant to this Decree
19 shall be done in accordance with all applicable federal, state, and local requirements, including
20 requirements to obtain necessary permits, except as provided in RCW 70A.305.090. The permits
21 or specific federal, state, or local requirements that the agency has determined are applicable and
22 that are known at the time of the execution of this Decree have been identified in Exhibit D.
23 Defendant has a continuing obligation to identify additional applicable federal, state, and local
24 requirements which apply to actions carried out pursuant to this Decree, and to comply with
25 those requirements. As additional federal, state, and local requirements are identified by Ecology
26

1 or the Defendant, Ecology will document in writing if they are applicable to actions carried out
2 pursuant to this Decree, and the Defendant must implement those requirements.

3 2. *Relevant and Appropriate Requirements.* All actions carried out by Defendant
4 pursuant to this Decree shall be done in accordance with relevant and appropriate requirements
5 identified by Ecology. The relevant and appropriate requirements that Ecology has determined
6 apply have been identified in Exhibit D. If additional relevant and appropriate requirements are
7 identified by Ecology or the Defendant, Ecology will document in writing if they are applicable
8 to actions carried out pursuant to this Decree and the Defendant must implement those
9 requirements.

10 3. Pursuant to RCW 70A.305.090(1), Defendant may be exempt from the
11 procedural requirements of RCW 70A.15, 70A.205, 70A.300, 77.55, 90.48, and 90.58 and of
12 any laws requiring or authorizing local government permits or approvals. However, Defendant
13 shall comply with the substantive requirements of such permits or approvals. For permits and
14 approvals covered under RCW 70A.305.090(1) that have been issued by local government, the
15 Parties agree that Ecology has the non-exclusive ability under this Decree to enforce those local
16 government permits and/or approvals. The exempt permits or approvals and the applicable
17 substantive requirements of those permits or approvals, as they are known at the time of the
18 execution of this Decree, have been identified in Exhibit D.

19 4. Defendant has a continuing obligation to determine whether additional permits or
20 approvals addressed in RCW 70A.305.090(1) would otherwise be required for the remedial
21 action under this Decree. In the event either Ecology or Defendant determines that additional
22 permits or approvals addressed in RCW 70A.305.090(1) would otherwise be required for the
23 remedial action under this Decree, it shall promptly notify the other party of its determination.
24 Ecology shall determine whether Ecology or Defendant shall be responsible to contact the
25 appropriate state and/or local agencies. If Ecology so requires, Defendant shall promptly consult
26 with the appropriate state and/or local agencies and provide Ecology with written documentation

1 from those agencies of the substantive requirements those agencies believe are applicable to the
2 remedial action. Ecology shall make the final determination on the additional substantive
3 requirements that must be met by Defendant and on how Defendant must meet those
4 requirements. Ecology shall inform Defendant in writing of these requirements. Once established
5 by Ecology, the additional requirements shall be enforceable requirements of this Decree.
6 Defendant shall not begin or continue the remedial action potentially subject to the additional
7 requirements until Ecology makes its final determination.

8 5. Pursuant to RCW 70A.305.090(2), in the event Ecology determines that the
9 exemption from complying with the procedural requirements of the laws referenced in
10 RCW 70A.305.090(1) would result in the loss of approval from a federal agency that is necessary
11 for the state to administer any federal law, the exemption shall not apply and Defendant shall
12 comply with both the procedural and substantive requirements of the laws referenced in
13 RCW 70A.305.090(1), including any requirements to obtain permits or approvals.

14 **XXII. REMEDIAL ACTION COSTS**

15 1. Defendant shall pay to Ecology costs incurred by Ecology pursuant to this Decree
16 and consistent with WAC 173-340-550(2). These costs shall include work performed by Ecology
17 or its contractors for, or on, the Site under RCW 70A.305, including remedial actions and Decree
18 preparation, negotiation, oversight, and administration. These costs shall include work
19 performed both prior to and subsequent to the entry of this Decree. Ecology's costs shall include
20 costs of direct activities and support costs of direct activities as defined in WAC 173-340-550(2).
21 For all costs incurred, Defendant shall pay the required amount within thirty (30) days of
22 receiving from Ecology an itemized statement of costs that includes a summary of costs incurred,
23 an identification of involved staff, and the amount of time spent by involved staff members on
24 the project. A general statement of work performed will be provided upon request. Itemized
25 statements shall be prepared quarterly. Pursuant to WAC 173-340-550(4), failure to pay
26

1 Ecology's costs within ninety (90) days of receipt of the itemized statement of costs will result
2 in interest charges at the rate of twelve percent (12%) per annum, compounded monthly.

3 2. In addition to other available relief, pursuant to RCW 19.16.500, Ecology may
4 utilize a collection agency and/or, pursuant to RCW 70A.305.060, file a lien against real property
5 subject to the remedial actions to recover unreimbursed remedial action costs.

6 **XXIII. IMPLEMENTATION OF REMEDIAL ACTION**

7 1. If Ecology determines that the Defendant has failed to make sufficient progress
8 or failed to implement the remedial action, in whole or in part, Ecology may, after notice to
9 Defendant, perform any or all portions of the remedial action or at Ecology's discretion allow
10 the Defendant opportunity to correct. In an emergency, Ecology is not required to provide notice
11 to Defendant, or an opportunity for dispute resolution. The Defendant shall reimburse Ecology
12 for the costs of doing such work in accordance with Section XXII (Remedial Action Costs).

13 2. Except where necessary to abate an emergency or where required by law, the
14 Defendant shall not perform any remedial actions at the Site outside those remedial actions
15 required by this Decree to address the contamination that is the subject of this Decree, unless
16 Ecology concurs, in writing, with such additional remedial actions pursuant to Section XV
17 (Amendment of Decree). In the event of an emergency, or where actions are taken as required
18 by law, Defendant must notify Ecology in writing of the event and remedial action(s) planned
19 or taken as soon as practical but no later than within twenty-four (24) hours of the discovery of
20 the event.

21 **XXIV. PERIODIC REVIEW**

22 1. So long as remedial action continues at the Site, the Parties agree to review the
23 progress of remedial action at the Site, and to review the data accumulated as a result of
24 monitoring the Site as often as is necessary and appropriate under the circumstances. Unless
25 otherwise agreed to by Ecology, at least every five (5) years after the initiation of cleanup action
26 at the Site the Parties shall confer regarding the status of the Site and the need, if any, for further

1 remedial action at the Site. Under Section XVIII (Covenant Not to Sue), Ecology reserves the
2 right to require further remedial action at the Site under appropriate circumstances. This
3 provision shall remain in effect for the duration of this Decree.

4 **XXV. PUBLIC PARTICIPATION**

5 1. Ecology shall maintain the responsibility for public participation at the Site.
6 However, Defendant shall cooperate with Ecology, and shall:

7 A. If agreed to by Ecology, develop appropriate mailing lists, prepare drafts
8 of public notices and fact sheets at important stages of the remedial action, such as the
9 submission of work plans, remedial investigation/feasibility study reports, cleanup action
10 plans, and engineering design reports. As appropriate, Ecology will edit, finalize, and
11 distribute such fact sheets and prepare and distribute public notices of Ecology's
12 presentations and meetings.

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

23 C. When requested by Ecology, participate in public presentations on the
24 progress of the remedial action at the Site. Participation may be through attendance at
25 public meetings to assist in answering questions, or as a presenter.
26

1 D. When requested by Ecology, arrange and/or continue information
2 repositories at the following location:

3 King County Public Library
4 18215 98th Avenue NE
5 Bothell, WA 98011

6 At a minimum, copies of all public notices, fact sheets, and documents relating to public
7 comment periods shall be promptly placed in these repositories. A copy of all documents related
8 to this Site shall be maintained in the repository at Ecology's Northwest Regional Office in
9 Shoreline, Washington.

10 **XXVI. DURATION OF DECREE**

11 1. The remedial program required pursuant to this Decree shall be maintained and
12 continued until Defendant has received written notification from Ecology that the requirements
13 of this Decree have been satisfactorily completed. This Decree shall remain in effect until
14 dismissed by the Court. When dismissed, Section XII (Retention of Records), Section XVIII
15 (Covenant Not to Sue), Section XIX (Contribution Protection), Section XX (Indemnification),
16 and Section XXVII (Claims Against the State) shall survive.

17 **XXVII. CLAIMS AGAINST THE STATE**

18 1. Defendant hereby agrees that it will not seek to recover any costs accrued in
19 implementing the remedial action required by this Decree from the State of Washington or any
20 of its agencies; and further, that Defendant will make no claim against any MTCA account for
21 any costs incurred in implementing this Decree. Except as provided above, however, Defendant
22 expressly reserves its right to seek to recover any costs incurred in implementing this Decree
23 from any other PLP. This section does not limit or address funding that may be provided under
24 WAC 173-322A.

25 **XXVIII. EFFECTIVE DATE**

26 1. This Decree is effective upon the date it is entered by the Court.


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XXIX. WITHDRAWAL OF CONSENT

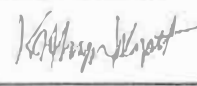
1. If the Court withholds or withdraws its consent to this Decree, it shall be null and void at the option of any party and the accompanying Complaint shall be dismissed without costs and without prejudice. In such an event, no party shall be bound by the requirements of this Decree.

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

ROBERT W. FERGUSON
Attorney General



BARRY ROGOWSKI
Program Manager
Toxics Cleanup Program
(360) 485-3738




KATHRYN WYATT, WSBA #30916
Assistant Attorney General
(360) 586-3514

Date: 11/29/22

Date: 12/13/2022

CITY OF BOTHELL



KYLE STANNERT
City Manager
(425) 806-6144

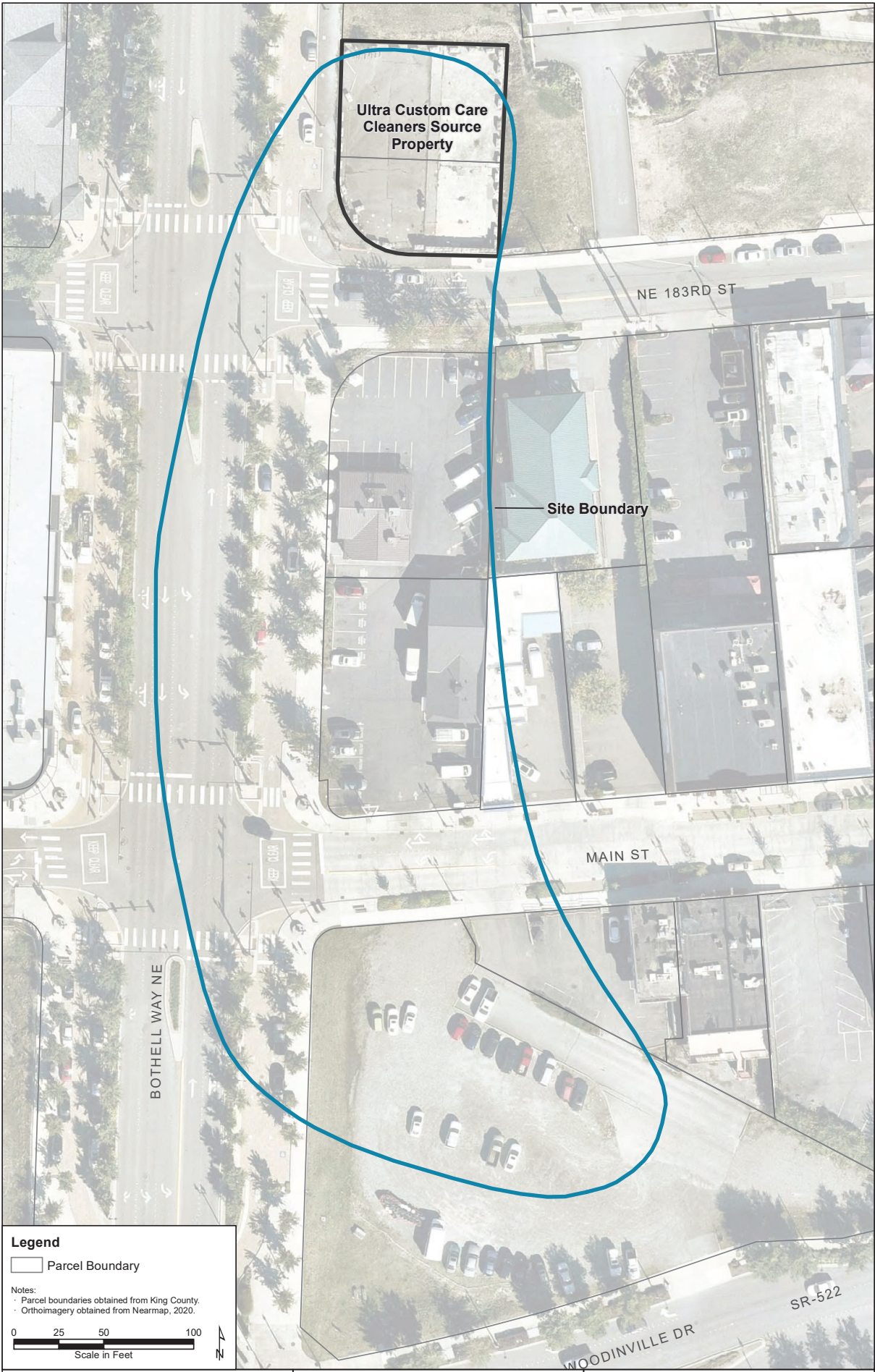
Date: 11/4/2022

ENTERED this 10 day of February 2023.



JUDGE CATHERINE SHAFFER
King County Superior Court

Exhibit A



Legend

Parcel Boundary

Notes:
 - Parcel boundaries obtained from King County.
 - Orthoimagery obtained from Nearmap, 2020.

0 25 50 100
 Scale in Feet

North Arrow

Exhibit B

**Ultra Custom Care
Cleaners Site**

Cleanup Action Plan

Prepared for

City of Bothell
18415 101st Ave NE
Bothell, WA 98011

November 2022

FINAL

Certified



Corporation



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Paper

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LIMITATIONS

This report has been prepared for the exclusive use of the City of Bothell, their authorized agents, and regulatory agencies. It has been prepared following the described methods and information available at the time of the work. No other party should use this report for any purpose other than that originally intended, unless Floyd|Snider agrees in advance to such reliance in writing. The information contained herein should not be utilized for any purpose or project except the one originally intended. Under no circumstances shall this document be altered, updated, or revised without written authorization of Floyd|Snider.

The interpretations and conclusions contained in this report are based in part on site characterization data collected by others and provided by the City of Bothell. Floyd|Snider cannot assure the accuracy of this information.

Executive Summary

This document presents the Cleanup Action Plan (CAP) for the Ultra Custom Care Cleaners Site (Site) in the downtown corridor of Bothell, Washington. The CAP was prepared for the Washington State Department of Ecology (Ecology) in collaboration with the City of Bothell (City). From the 1950s until 2012, dry-cleaning operations were conducted by Raincheck Cleaners and Laundry, NuLife Cleaners, and Ultra Custom Care Cleaners at buildings located at the Site's source property on the northeast corner of Bothell Way NE and NE 183rd Street. The original building at the source property was demolished and replaced in 1967. The source property has been vacant since February 2012, when the City acquired the property and demolished the existing building. The Site, which is defined by the extent of contamination resulting from the former dry-cleaning operations, includes areas of the source property, five downgradient private or City-owned properties, and three City rights-of-way (ROWs).

This CAP has been prepared to meet the requirements of the Model Toxics Control Act administered by Ecology under Chapter 173-340 of the Washington Administrative Code. This CAP describes Ecology's proposed cleanup action for this Site, sets forth the requirements that the cleanup must meet, and was developed using information presented in the Remedial Investigation (RI) and Feasibility Study (FS) report for the Site, which was prepared for the City by Floyd|Snider in 2021 (Floyd|Snider 2021).

The cleanup action selected by Ecology for the Site is composed of multiple remedial technologies identified in the RI/FS. The RI/FS identified chemicals of concern (COCs), which were targeted for remediation, confirmed to be present in groundwater and soil at the Site resulting from former Site activities, including chlorinated volatile organic compounds (cVOCs; tetrachloroethene [PCE] and its breakdown products trichloroethene, *cis*-1,2-dichloroethene, and vinyl chloride) and arsenic. Gasoline-range organics resulting from other operations on private properties downgradient of the source property are also a COC in soil.

Cleanup levels (CULs) are established in this CAP for the contaminants present in soil and groundwater. Soil CULs are based on the protection of groundwater from soil leaching. Soil CULs are also protective of human health if direct contact soil exposure occurs. Groundwater CULs are based on the protection of drinking water. Groundwater CULs are also protective of indoor air exposure associated with vapor intrusion into buildings at the Site.

The RI/FS considered four different cleanup action alternatives for soil and groundwater. Ecology selected the proposed cleanup action from among the four cleanup action alternatives presented in the RI/FS because it provides the greatest degree of overall environmental benefit for the associated cost.

The selected cleanup action consists of the following remedial components:

- Excavation of soil with PCE concentrations exceeding CULs on the source property
- Excavation amendment in the deepest source area excavation by mixing soil with sulfidated micro-zero-valent iron (S-MZVI) to facilitate destruction of cVOCs through

- chemical reaction and stimulate anaerobic biological degradation by creating reducing conditions
- In situ treatment of shallow and deep downgradient groundwater by injection of targeted barriers consisting of liquid activated carbon (PlumeStop) and S-MZVI to adsorb and facilitate destruction of cVOCs in groundwater
 - Monitored natural attenuation of groundwater following excavation and injection of PlumeStop and S-MZVI
 - Institutional controls, if necessary, to control exposures to soil contamination left in place beneath the City ROW

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List of Abbreviations

Abbreviation	Definition
AO	Agreed Order
AOC	Area of Concern
ARAR	Applicable or Relevant and Appropriate Requirement
bgs	Below ground surface
CAP	Cleanup Action Plan
CCMP	Construction Compliance Monitoring Plan
CD	Consent Decree
City	City of Bothell
COC	Chemicals of concern
CSCSL	Confirmed and Suspected Contaminated Sites List
CSM	Conceptual site model
CUL	Cleanup level
cVOC	Chlorinated volatile organic compound
CY	Cubic yard

Abbreviation	Definition
DCE	<i>cis</i> -1,2-Dichloroethene
DRO	Diesel-range organics
Ecology	Washington State Department of Ecology
EDR	Engineering Design Report
FS	Feasibility Study
GRO	Gasoline-range organics
HASP	Health and Safety Plan
IC	Institutional Control
IM	Interim measure
LTCMP	Long-term compliance monitoring plan
µg/L	Micrograms per liter
MNA	Monitored Natural Attenuation
MTCA	Model Toxics Control Act
ORO	Oil-range organics
PCE	Tetrachloroethene
POC	Point of compliance
RACR	Remedial Action Completion Report
RAO	Remedial Action Objective
REL	Remediation level
RI	Remedial Investigation
ROW	Rights of way
SF	Square feet
Site	Ultra Custom Care Cleaners Site
SL	Screening level
S-MZVI	Sulfidated micro-zero-valent iron
TCE	Trichloroethene
TPH	Total petroleum hydrocarbon
UST	Underground storage tank
ZVI	Zero-valent iron

1.0 Introduction

This document presents the Cleanup Action Plan (CAP) for the Ultra Custom Care Cleaners Site (Site), located in the downtown corridor of Bothell, Washington (Figure 1.1). This CAP was prepared pursuant to the requirements of Agreed Order (AO) No. DE 9704 (Ecology 2013) between the Washington State Department of Ecology (Ecology) and the City of Bothell (City).

Site Name: Ultra Custom Care Cleaners

Facility Site ID: 379891

Cleanup Site ID: 3172

Source Property Address: 18304 Bothell Way NE

Parcels: 072605-9003 and a portion of 072605-9191

Owners: City of Bothell

The “Site” is not defined by an address or property boundary under the Model Toxics Control Act (MTCA), but rather defined by the extent of contamination before cleanup activities begin (WAC 173-340-200). Therefore, the Site includes the source property and several adjacent or downgradient impacted properties (discussed further in Section 2.0). The source property for the Site, now an empty lot on the City’s Municipal and City Hall Campus, is the former location of several dry-cleaning facilities with operations starting in the 1950s and is the source of a chlorinated volatile organic compound (cVOC) groundwater plume. The source property and adjacent cleanup sites are shown on Figure 1.2.

1.1 PURPOSE AND REGULATORY FRAMEWORK

This CAP is a requirement of the MTCA cleanup regulation (WAC 173-340). The purpose of the CAP is to identify the proposed cleanup action at the Site; to establish the actions required to achieve a reasonable restoration time frame at the Site; and to identify the necessary requirements of engineering and monitoring plans, as further described in this document.

Specific MTCA requirements for CAPs are set forth in WAC 173-340-380(1). Consistent with these requirements, this CAP provides the following:

- Site description and summary of current site conditions
- Cleanup standards for hazardous substances in each medium of concern
- Summary of the cleanup action alternatives considered in the Remedial Investigation (RI) and Feasibility Study (FS) for the Site (Floyd|Snider 2021)
- Description of the proposed cleanup action developed for the Site in accordance with WAC 173-340-350 through 173-340-380, including justification for selection of the cleanup action

- Description of the types, levels, and amounts of hazardous substances remaining at the Site, and the measures that will be used to prevent migration and contact with those substances
- Applicable state and federal laws for the proposed cleanup action
- Restoration time frame and compliance monitoring requirements
- Implementation schedule

Ecology has made a preliminary determination that a cleanup conducted in conformance with this CAP will comply with the requirements for selection of a cleanup action under WAC 173-340-360. These requirements include a cleanup action that will be protective of human health and the environment, attain federal and state requirements that are applicable or relevant and appropriate, comply with cleanup standards, provide for compliance monitoring, use permanent solutions to the maximum extent practicable, provide for a reasonable restoration time frame, and consider public concerns, as further described in this CAP.

2.0 Site Description

The Site is within Bothell's Downtown Core District Zone. The Site includes areas of the source property, five downgradient private or City-owned properties, and three City rights-of-way (ROWs). Current land use within the downtown core in the vicinity of the Site includes both commercial and residential use. The City anticipates future development in the vicinity of the Site will include commercial and residential use, consistent with its long-term development plans. The City owns the source property and two additional blocks downgradient of the source property (Figure 1.2).

This section describes the Site's history, including a brief history of pollutant-generating activities and the circumstances surrounding identification of the Site as a MTCA cleanup site (Section 2.1); previous studies and interim measures (IMs) completed at the Site (Section 2.2); the conceptual site model (CSM; Section 2.3); and areas of concern (AOCs) at the Site (Section 2.4).

2.1 SITE HISTORY

Subsurface contamination at the Site originated from historical dry-cleaning operations on the source property (Figure 1.2). The original building at the source property was located on the southwestern portion of the lot and was built in 1948. Raincheck Cleaners and Laundry occupied this building from the 1950s through 1967. In 1967, the Raincheck Cleaners and Laundry building was demolished, and a new building was constructed. The new building was occupied by NuLife Cleaners, followed by Ultra Custom Care Cleaners.

In 2002, an investigation identified cVOCs—tetrachloroethene (PCE) and its breakdown products trichloroethene (TCE) and *cis*-1,2-dichloroethene (DCE)—in groundwater in the vicinity of the dry-cleaning business and prompted Ecology's listing of the Site to the Confirmed and Suspected Contaminated Sites List (CSCSL) and numerous environmental investigations, including the investigations and IMs described in Section 2.2. The City acquired the property in February 2012 as part of the Downtown Redevelopment Plan and demolished the existing building to accommodate expansion of the City Hall municipal campus. The source property remains vacant at the southwest corner of the City Hall campus. It is almost entirely covered by concrete or pavement except for thin margins of compacted gravel (less than approximately 1 foot wide) along the property perimeter. Adjacent parcels north and east of the source property are vegetated.

On April 18, 2013, the City entered an AO with Ecology to perform a cleanup at the Site (Ecology 2013). In 2016 and 2018, the City prepared draft and revised RI/FS documents (HWA 2017a, 2018a) to summarize Site data and establish cleanup goals. Ecology subsequently requested additional data collection and characterization of the Site. Data gaps investigation field activities were conducted in 2020 and provided the information necessary to complete the RI/FS (Floyd|Snider 2021).

2.2 PREVIOUS STUDIES AND INTERIM MEASURES

Data from numerous environmental investigations were used to characterize soil and groundwater quality at the Site and were comprehensively described in the RI. Data characterization efforts were completed in five phases, which are briefly described as follows:

- **Preliminary Site Assessment (2001–2008).** In 2001, an initial Phase I Environmental Site Assessment identified recognized environmental conditions, including potentially contaminated soil and groundwater from historical dry-cleaning operations and use of underground storage tanks (USTs; HWA 2018b). Subsequent investigations confirmed the presence of contaminated soil and groundwater, which led to Ecology’s addition of the Site to the CSCSL. Groundwater data collected during this phase were not used to establish current Site conditions.
- **Pre-Groundwater IM: Site Characterization (2009–2014).** Several investigations were completed at adjacent Ecology cleanup sites and to characterize Site contamination prior to planned redevelopment activities in Bothell’s downtown core as part of the AO requirements. During these investigations, cVOCs were confirmed in soil and groundwater beneath the source property and in downgradient groundwater.
- **Ongoing Groundwater IM: Performance Monitoring and Site Characterization (2014–2016).** Between May 2014 and April 2016, groundwater IMs were performed at the Site to reduce concentrations of cVOCs in groundwater. Groundwater data were collected quarterly throughout the implementation of these IMs to evaluate their effectiveness.
- **Post-Groundwater IM: Site Characterization (2016–2018).** After completion of the groundwater IMs, three soil and groundwater subsurface investigations were completed to characterize the extent of remaining Site contamination. Additionally, data from quarterly groundwater monitoring events were collected to evaluate post-IM groundwater quality.
- **Data Gaps Investigation (2020).** In 2020, data were collected to fill remaining Site data gaps and to characterize current groundwater quality across the Site. These data formed the primary basis for the RI’s description of current Site groundwater conditions.

Figure 2.1 shows soil and groundwater sampling locations used to delineate contamination in the RI. Groundwater locations representative of current conditions are included in Figure 2.1; therefore, only locations that were sampled in 2009 and later are shown.

Several IMs have been completed to address contamination from the source property; key IMs include the following:

- In May and August 2014, in situ chemical oxidation injection IMs were performed across the source property. Groundwater monitoring showed that chemical oxidation IMs were ineffective (HWA 2014a).

- Bioinjection IMs were completed in 2015 and 2016. To foster the correct geochemical conditions for effective cVOC treatment, the injection substrate used included three components: (1) water and granular zero-valent iron (ZVI), which removes chlorine and creates anoxic groundwater conditions; (2) emulsified vegetable oil, micro-ZVI, and dispersant in anaerobic water, which provide an energy source for the bioaugmentation culture and disperses the injection substrate into groundwater; and (3) bioaugmentation culture, a bacterial culture capable of converting PCE to *cis*-1,2-DCE. These IMs successfully reduced concentrations of cVOCs in groundwater within the target areas. Figure 2.2 shows bioinjection locations associated with the groundwater IMs completed.
 - **January 2015.** Six 4-inch-diameter injection wells were installed. Bioremediation substrate injected into these wells treated deep groundwater on the source property. Additionally, 11 1-inch-diameter injection wells were installed on the source property to treat shallow groundwater. Bioremediation substrate was injected in the 11 shallow injection wells, and in three additional downgradient direct push bioinjection rows.
 - **April 2016.** The second bioinjection IM was completed. Bioremediation substrate was injected in the source area (five existing injection wells and 10 direct push bioinjections) and in three downgradient direct push bioinjection rows.

Implementation of IMs at the Site has resulted in a discontinuous plume of cVOCs in groundwater. Areas within and immediately downgradient of the IM injection areas have been successfully remediated; however, cVOCs in groundwater remain at elevated concentrations between the targeted IM areas.

Previous IMs to address cVOCs in groundwater at the Site have also created intentional, temporary changes to the chemical conditions in groundwater by adding ZVI. ZVI releases electrons, which assist in the breakdown of cVOCs and also cause arsenic to be more soluble in water. Arsenic occurs naturally in soil in the Puget Sound region; therefore, when ZVI is added at the Site, arsenic present in soil in the saturated zone temporarily dissolves to groundwater. This process is temporary and reversible.

In addition to the investigations and interim actions completed at the Site, many soil removal actions were completed as part of redevelopment of the City's downtown core. Activities that resulted in removal of contaminated soil include the following:

- **Targeted Soil Excavation on the Source Property.** In November 2015, a former home heating oil tank and its contents were excavated and removed from the source property (HWA 2016). Confirmation samples were collected to document that all potentially impacted soils were removed.
- **Utility Excavations.** Total petroleum hydrocarbon (TPH) impacted soils were removed following discovery of a UST during a utility excavation adjacent to the Speedy Glass property (PSI 1998).

- **Roadway Realignment in the Downtown Core.** This work removed some shallow soil contamination present in the roadway and ROW near the source property
- **Remediation of the Bothell Landing Site.** Targeted excavations were performed at the Bothell Landing Site to remove TPH sources and excavate TPH-contaminated soil (HWA 2014b), followed by groundwater treatment with oxygen-release compound. The Bothell Landing Site is shown on Figure 1.2; its footprint is within the boundary of cVOC contamination from the source property.

2.3 CONCEPTUAL SITE MODEL

The CSM describes when and where the Site was contaminated; what media were affected; where the contamination migrated (pathways); and who and what could be harmed from the contamination (receptors). Figures 2.3 and 2.4 illustrate this concept on a cross-sectional view: Figure 2.3 shows the alignment of the cross-section, and Figure 2.4 is the CSM cross-section.

Existing contamination at the Site originated from historical releases associated with former dry-cleaning operations, which occurred at the source property between the 1950s and 2012. Contamination is present in soil on the source property near where the original release occurred. Dry-cleaning solvent released in the liquid phase at the historically unpaved ground surface migrated downward through permeable shallow soils into groundwater, which is generally encountered between 5 to 13 feet below ground surface (bgs) at the Site. Once in groundwater, contamination continues to migrate downward, because dry-cleaning solvents are denser than water. Contamination also moves laterally in the direction of groundwater flow, which is generally southward toward the Sammamish River (Floyd|Snider 2021). Figure 1.2 shows the Sammamish River relative to the source property, and Figure 2.4 shows the direction of groundwater flow.

For the purposes of characterizing the extent of contamination, the groundwater aquifer at the Site has been split into the following two zones:

- **Shallow Groundwater:** Between approximately 5 and 25 feet bgs
- **Deep Groundwater:** Approximately 25 feet bgs and deeper

Because dry-cleaning solvents are denser than water, cVOC groundwater contamination is found at deeper depths with increasing distance from the source property. This means that closer to the source property, most contamination is present in the shallow groundwater zone, whereas further from the source property, contamination is present in the deep groundwater zone. Soil at the Site is composed primarily of glacial recessional and advance outwash, which is composed of sand and silt with gravel near the surface, followed by consolidated glacial till, as illustrated on Figure 2.4. The groundwater contamination is present mainly within the outwash layer, which is more permeable than the underlying dense glacial till layer that forms a natural barrier that prevents further downward migration of contamination. As shown in Figure 2.2, previous IM injections were successful in remediating portions of the shallow groundwater plume. The footprint of the Site is defined by the areas where cVOCs are present in soil on the source

property and by the plume of cVOC contamination in groundwater originating at the source property. Releases of petroleum (gasoline-range organics [GRO], diesel-range organics [DRO] and/or oil-range organics [ORO]) to shallow soil have also occurred in the course of operations at other downgradient properties within the Site boundary defined by the groundwater cVOC plume. These petroleum releases are generally limited to shallow soil and have not impacted groundwater, and many have been removed by excavation (refer to Section 2.2 above).

The source property and many of the adjacent and downgradient properties are almost totally covered by pavement, including roadways, sidewalks, and parking lots. Based on the Site configuration of paved surfaces and known occurrences of shallow soil contamination, there is no potential for erosion and transport of contaminants from soil by stormwater. Groundwater contaminants do not reach the Sammamish River.

Based on the current understanding of the Site, the only media of concern are soil and groundwater. Receptors and exposure pathways are identified for each of these media below, based on active or potentially active transport mechanisms for site contaminants. Based on the current understanding of the Site, current land use, and previous environmental studies, there are three primary transport mechanisms, as listed below:

- Volatilization of hazardous substances in the vadose zone and water table
- Sinking of dry-cleaning solvents that are denser than groundwater
- Flow of water downgradient, generally south, of the source property within groundwater

Soil. For impacted soil, a potential exposure pathway consists of direct contact with shallow impacted soil in unpaved areas by future workers or within future excavations related to redevelopment activities.

Terrestrial ecological receptors are not expected to be affected because of the limited habitat on the Site and adjacent parcels. However, burrowing or ground-dwelling invertebrates, and plants are exposed directly to soil. Screening levels (SLs) for protection of ecological receptors were considered in development of cleanup levels (CULs) for contaminants resulting from Site activities.

The entirety of the source property is paved aside from thin margins of crushed gravel along the property boundary; therefore, leaching of PCE in soil in the vadose zone is not expected to be a major source of contamination to groundwater. Limited PCE in saturated soil on the source property leaching to groundwater is assumed to be an ongoing source of contamination to groundwater. The parcels immediately upgradient of the source property are unpaved; therefore, stormwater infiltrating from upgradient also has some potential to cause infiltration through contaminated soil. Soil CULs are set to protect groundwater for drinking water use via the soil-to-groundwater (leaching) pathway.

Groundwater. There are no known drinking water wells in the immediate vicinity of the Site, and the use of Site groundwater as a drinking water source is unlikely given the Downtown Core zoning classification of the Site. However, groundwater is considered potable in accordance with WAC 173-340-720, because Ecology has not issued a non-potability determination for the Site. This pathway is incomplete but still forms the basis of groundwater CULs, because it is protective of other direct contact exposure scenarios that may be encountered at the Site (e.g., digging trenches for utility work).

Dry-cleaning solvents are volatile and present a potential risk to indoor air quality if present in high concentrations and if structures are located or built over contaminated areas. A potential exposure pathway consists of inhalation of vapors within potential future buildings that may be constructed over these areas. People in a building with a potential vapor intrusion pathway are potential receptors.

2.4 AREAS OF CONCERN

AOCs for development of a cleanup action encompass Site soil and groundwater locations where recent results exceed CULs for chemicals of concern (COCs) associated with Site activities including cVOCs and arsenic. AOCs are illustrated on Figure 2.5. There are six discrete areas where cVOCs exceed CULs in groundwater. If left untreated, groundwater in these areas would travel downgradient (in a south-southeast direction), contaminating areas that are currently in compliance with CULs.

Source Property cVOC AOC. This includes soil and groundwater contamination located within the source property. There are three localized PCE hotspots in soil at the source property. Most PCE contamination is present in shallow vadose zone soil at depths less than 3 feet bgs. Contamination is deepest in the southernmost hotspot, where contamination may be as deep as 9.5 feet bgs. Shallow soil contamination is unlikely to be an ongoing source to groundwater while the source property remains paved but may be a future source to groundwater via infiltration. The limited area of the southernmost hotspot where contamination is present in the saturated zone is presumed to be a continuing source to groundwater.

Groundwater contamination is present in shallow groundwater on the southern parcel of the source property. PCE was measured on the source property at a maximum concentration of 130 micrograms per liter ($\mu\text{g/L}$) in the 2020 monitoring event (Table 6.1 of the RI/FS; Floyd | Snider 2021).

Shallow Groundwater cVOC AOC. Contamination in this AOC was partially addressed by previous groundwater IMs. As a result of these IMs, groundwater contamination in the shallow groundwater zone is present in four discrete groundwater plumes or hotspots, as shown on Figure 2.5. Contamination is located at properties and City ROWs south of the source property. Contamination in this AOC is deepest in the hotspot on the southern portion of the Speedy Glass property, where PCE contamination remains at depths of 10 to 19 feet bgs.

Residual low-level soil contamination is present in the City ROW near the intersection of Bothell Way NE and NE 183rd Street. This contamination may have migrated with groundwater and partitioned onto soil. Residual soil contamination is well understood and located under pavement. It is included in this AOC as a potential future source to groundwater, even though it is unlikely to represent a source to groundwater.

Deep Groundwater cVOC AOC. Groundwater contamination is present in the deep groundwater zone at properties and City ROWs south of the source property. The maximum depth of contamination is approximately 35 feet bgs on the majority of the Site. This depth corresponds to the depth of the confining layer of glacial till present across the deep groundwater plume extent.

Arsenic AOC. There are three discrete groundwater hotspots where arsenic exceeds its CUL, which together constitute the arsenic AOC. Two hotspots are in the shallow groundwater zone; one hotspot is in the deep groundwater zone. Each hotspot is centered on or immediately downgradient of bioinjection locations where groundwater geochemistry was intentionally altered to create reducing conditions (Figure 2.5). This change in geochemistry caused naturally occurring arsenic present in soil to leach into groundwater. When geochemical conditions of the aquifer return to pre-injection conditions, arsenic concentrations should return to natural background levels without requiring active remediation.

3.0 Chemicals of Concern and Cleanup Standards

This section describes the Site's COCs (Section 3.1); cleanup standards for groundwater (Section 3.2); and cleanup standards for soil (Section 3.3).

Cleanup standards are composed of a CUL combined with a point of compliance (POC), which is the location where the CUL must be met. CULs protect the active or potentially active exposure pathways discussed in Section 2.3 for each of the impacted media present at the Site.

3.1 CHEMICALS OF CONCERN

COCs were identified by comparing Site data to SLs that are protective of all the potential exposures to Site contamination in accordance with MTCA. This evaluation identifies the chemicals that pose the greatest overall threat to human health and the environment due to toxicity, spatial distribution, and/or concentrations present.

This evaluation found that certain cVOCs are COCs in both soil and groundwater. PCE releases are the source of all cVOC contamination at the Site. When PCE degrades in the environment, it forms TCE, *cis*-1,2-DCE, and vinyl chloride as its breakdown products. This process occurs primarily within groundwater. Additional COCs at the Site are arsenic in groundwater and GRO in soil. However, these chemicals had rare detections at elevated concentrations and do not represent a significant exposure risk. In summary, the Site COCs include the following:

- **Groundwater.** PCE and breakdown products of PCE (TCE, *cis*-1,2-DCE, and vinyl chloride); and arsenic.
- **Soil.** PCE and GRO.

There are no current or former sources at the Site that would contribute to a release of arsenic. Elevated arsenic concentrations are expected to be present within the boundaries of the cVOC plume due to reducing geochemical conditions caused by IMs performed at the Site. Reducing conditions can cause the release of naturally occurring arsenic in native soils into groundwater. This process is reversible; arsenic concentrations are expected to decline to natural background levels after the aquifer returns to its pretreatment geochemical conditions.

3.2 CLEANUP STANDARDS FOR GROUNDWATER CHEMICALS OF CONCERN

Groundwater cleanup standards ensure that groundwater is protective of human health, ecological receptors, and the environment.

3.2.1 Cleanup Levels for Groundwater

The highest beneficial use of groundwater is assumed to be drinking water. However, groundwater cleanup standards are protective of all active or potentially active exposure pathways at the Site, considering both current and future land use. Criteria protective of each pathway were developed, and then the lowest (most protective) CUL was selected as the CUL for each chemical.

The Site CUL for arsenic is based on the natural background concentration (Ecology 2022a). The CULs for cVOCs are based on MTCA Method A, which is protective of all pathways for a simple site with a single contaminant source (e.g., PCE releases from former dry cleaning operations). The CUL for arsenic has been adjusted from the value presented in the Site RI/FS, to reflect an updated Ecology study on background metals concentrations, which was issued since completion of the RI/FS. CULs for each groundwater COC are summarized in Table 3.1.

**Table 3.1
Groundwater Cleanup Levels**

Analyte	CAS No.	CUL (µg/L)	CUL Basis	Toxicity Basis ⁽¹⁾
Total Metals				
Arsenic	7440-38-2	8.0	Background	Carcinogenic ⁽²⁾
Chlorinated Volatile Organic Compounds				
PCE	127-18-4	5.0	MTCA Method A	Carcinogenic
TCE	79-01-6	5.0	MTCA Method A	Carcinogenic
<i>cis</i> -1,2-DCE	156-59-2	70	Federal MCL	Short-Term/Acute
Vinyl chloride	75-01-4	0.20	MTCA Method A	Carcinogenic

Notes:

- 1 In accordance with WAC 173-340-720(9)(c)(v), compliance with CULs will be determined using an upper percentile concentration for CULs based on short-term or acute toxic effects on human health or the environment, and the true mean concentration for CULs based on chronic or carcinogenic effects.
- 2 The lowest human-health risk-based criterion is protective of the cancer endpoint, which is adjusted upward to natural background (Ecology 2022a).

Abbreviations:

- CAS Chemical Abstracts Service
- CUL Cleanup level
- DCE *cis*-1,2-Dichloroethene
- MCL Maximum contaminant level
- MTCA Model Toxics Control Act
- PCE tetrachloroethene
- RI Remedial Investigation
- TCE trichloroethene

3.2.2 Remediation Levels for Groundwater

Groundwater remediation levels (RELs) based on vapor intrusion to a commercial building were developed to aid in determining whether groundwater concentrations are protective of commercial activities on private property in areas overlying plumes while the remedy is in process. The RELs were calculated consistent with Section 4.4 of Ecology’s vapor intrusion guidance (Ecology 2022b), assuming that workers are exposed for a duration of 45 hours per week for 50 weeks per year. Short-term RELs are presented in Table 3.2.

**Table 3.2
Groundwater Remediation Levels for Vapor Intrusion**

Analyte	CAS No.	REL (µg/L)
PCE	127-18-4	120
TCE	79-01-6	12 ⁽¹⁾
Vinyl chloride	75-01-4	1.5

Note:

- 1 A short-term action level of 31 µg/L is additionally applicable for TCE and will be assessed by performance monitoring where groundwater contamination may be present beneath buildings.

Abbreviations:

- CAS Chemical Abstracts Service
- PCE Tetrachloroethene
- REL Remediation level
- TCE Trichloroethene

The standard POC where these CULs apply is groundwater throughout the Site, to the maximum depth where contamination from the Site is present. The standard POC applies to all groundwater COCs. Compliance is determined for each groundwater monitoring well individually in accordance with WAC 173-340-720(9)(c).

3.3 CLEANUP STANDARDS FOR SOIL CHEMICALS OF CONCERN

CULs were developed for each chemical that was retained as a soil COC. The standard POC where these CULs apply is soil throughout the Site, up to the maximum depth where contamination from the Site is present. CULs are summarized in Table 3.3. These CULs are protective of unrestricted current and future land use for a site where the ecological exposure pathway is not active.

**Table 3.3
Soil Cleanup Levels**

Analyte	CAS No.	CUL (mg/kg)	CUL Basis
Chlorinated Volatile Organic Compounds			
PCE	127-18-4	0.050	Protection of Groundwater
Total Petroleum Hydrocarbons			
Gasoline-range organics	GRO	30	Protection of Groundwater

Abbreviations:

- CAS Chemical Abstracts Service
- CUL Cleanup level
- GRO Gasoline-range organics
- mg/kg Milligrams per kilogram
- PCE Tetrachloroethene

The standard POC where these CULs apply is soil throughout the Site, to the maximum depth where contamination from the Site is present. The standard POC applies to both soil COCs.

4.0 Cleanup Action Evaluation

Remedial technologies were reviewed and considered to address both soil and groundwater contamination at the Site. This section presents a summary of the preliminary screening of remedial technologies (Section 4.1); cleanup alternatives (Section 4.2); and cleanup alternatives evaluation criteria (Section 4.3). Section 5.0 describes the proposed cleanup action.

4.1 PRELIMINARY SCREENING OF TECHNOLOGIES

Passive and active remedial technologies applicable for the site-specific COCs at concentrations measured at the Site were evaluated in the FS (Floyd | Snider 2021). The site-specific groundwater COCs are four cVOCs (PCE, TCE, *cis*-1,2-DCE, and vinyl chloride) and arsenic. PCE and GRO are soil COCs. The goal of this screening was to identify technologies that would address contamination resulting from former Site activities. Although GRO was retained as a COC for the Site due to its presence on downgradient properties within the Site footprint at concentrations exceeding the CUL, releases of GRO are not associated with activities that occurred at the Site and is, therefore, not targeted for cleanup.

A preliminary screening of the remedial technologies was completed in the FS in accordance with WAC 173-340-350(8)(b). The objective of the screening was to remove technologies from further evaluation if they clearly did not meet the minimum requirements of the Remedial Action Objectives (RAOs) or had a disproportionate cost to apply based on the site conditions.

Based on this preliminary screening step completed in the FS, the following technologies were retained for further consideration as part of the cleanup action alternative evaluation in one or more AOCs:

- Institutional Controls (ICs)
- Engineering Controls
- Monitored Natural Attenuation (MNA)
- Surface Capping
- In Situ Groundwater Treatment by Bioremediation
- In Situ Groundwater Treatment by Activated Carbon
- Soil Excavation and Landfill Disposal

These retained technologies were evaluated for each AOC and then aggregated into Site-wide alternatives, as described in Section 4.2. Additional details on all the technologies evaluated are in the FS.

4.2 CLEANUP ACTION ALTERNATIVE EVALUATION

Four cleanup action alternatives were evaluated in the FS to address soil and groundwater contamination at the Site. The cleanup action alternatives consider each of the AOCs, ranging

from most protective to least protective, and employ combinations of active remedial technologies and passive technologies that either eliminate or manage current and potential future exposure to contaminated media at the Site. The following alternatives were evaluated in the FS:

- **Alternative 1: Soil Excavation and Plume-Wide Activated Carbon and S-MZVI Injection Barriers**
 - Excavation to remove soil exceeding CULs Site-wide
 - Source Area cVOC AOC groundwater treatment with activated carbon and sulfidated micro-zero-valent iron (S-MZVI) in situ injection
 - In situ groundwater treatment by injection of liquid activated carbon and S-MZVI mixture (such as the proprietary Plume Stop mixture) in six equally spaced barriers along the length and width of the cVOC groundwater plume in the Shallow and Deep Groundwater cVOC AOCs
- **Alternative 2: Source Area Excavation and Targeted Activated Carbon and S-MZVI Injection Barriers**
 - Excavation to remove PCE-contaminated soil exceeding CULs on the Source Property cVOC AOC
 - Source area groundwater treatment with S-MZVI soil mixing in the deep excavation on the Source Property cVOC AOC
 - In situ groundwater treatment by injection of liquid activated carbon and S-MZVI in five focused barriers along the length of the cVOC groundwater plume in the Shallow and Deep Groundwater cVOC AOCs
 - ICs
- **Alternative 3: In Situ Bioremediation Treatment Zones**
 - In situ groundwater treatment using emulsified vegetable oil substrate to enhance bioremediation in three zones, including the Source Property cVOC AOC, and the Shallow and Deep Groundwater cVOC AOCs
 - ICs
- **Alternative 4: Source Area Treatment and Monitored Natural Attenuation**
 - In situ groundwater treatment in the Source Property cVOC AOC by injecting activated carbon and S-MZVI
 - MNA of cVOCs in groundwater
 - Contingency soil vapor assessment
 - ICs

MNA and groundwater monitoring would also be a component of each of the four alternatives.

4.3 PROPOSED CLEANUP ACTION ALTERNATIVE AND RATIONALE FOR SELECTION

Each of the four alternatives were screened relative to mandatory MTCA threshold requirements provided in WAC 173-340-360(2)(a), and other MTCA requirements for evaluation described in WAC 173-340-360(2)(b). These four alternatives were also evaluated according to the MTCA DCA procedures (WAC 173-340-360(2)(a-b)) to compare the costs and benefits of the cleanup alternatives and identify the alternative that is permanent to the maximum extent practicable.

Following consideration of the FS, Ecology has determined that the preferred alternative (Alternative 2) is the proposed cleanup action for the Site. The selected cleanup action has the lowest cost per degree of benefit and provides the greatest level of environmental benefit and permanence per dollar spent, making it the most permanent remedy to the maximum extent practicable.

The selected cleanup action meets the MTCA threshold requirements provided in WAC 173-340-360(2)(a), as described below:

- **Protect Human Health and the Environment.** The selected cleanup action will protect human health and the environment in both the short and long term. The remedy will permanently reduce the identified risks presently posed to human health and the environment through a combination of soil excavation, in situ groundwater treatment, and natural attenuation.
- **Comply with Cleanup Standards.** The selected cleanup action is expected to comply with the cleanup standards for groundwater and soil within a reasonable time frame.
- **Comply with Applicable State and Federal Laws.** The selected cleanup action is expected to comply with all state and federal laws and regulations.
- **Provide for Compliance Monitoring.** The selected cleanup action will include compliance monitoring for soil and groundwater to assess the effectiveness and permanence of each remedy element.

Cleanup alternatives must also fulfill other MTCA requirements described in WAC 173-340-360(2)(b) and listed below:

- **Use Permanent Solutions to the Maximum Extent Practicable.** The selected cleanup action utilizes excavation, which will permanently remove soil contaminant mass in the subsurface and effectively eliminate a significant source of contamination to groundwater. In situ treatment of groundwater will permanently degrade remaining groundwater contamination.
- **Provide for a Reasonable Restoration Time Frame.** Soil CULs will be met immediately upon completion of excavation. The restoration time frame for cVOCs in Site-wide groundwater is estimated to be 6 to 8 years, and the restoration time frame for all contaminants in groundwater to achieve CULs is 7 to 10 years. This is a reasonable restoration time frame given the size of the Site and current commercial usage of the properties at the Site.

- **Consider Public Concerns.** This document is being presented to the public and stakeholders for review and comment. The RI/FS will also be presented concurrently for public comment. Any comments received during the public comment period will be reviewed by Ecology prior to issuance of a final RI/FS CAP and addressed in a responsiveness summary. The final CAP will incorporate modifications, as needed, based on public comment.

The selected remedy also meets the additional RAOs established for the Site, including the following:

- **Prevent transport of contaminants from the Site by groundwater migration.** The selected cleanup action includes downgradient groundwater treatment to prevent further migration of contaminated groundwater from the Site.
- **Remediate contaminants in a manner that (a) does not interfere with or restrict proposed Site development and future use plans and (b) minimizes impacts to private businesses during remedial construction.** The selected cleanup action will not install permanent structures that may prevent future development and proposes to clean up soil and groundwater to concentrations compatible with unrestricted future property use. The preferred alternative uses minimally invasive construction methods to implement cleanup on private properties.
- **Properly manage any contaminated soil or groundwater generated during Site cleanup and ensure that these activities do not result in unacceptable exposure to contamination.** The selected cleanup action is not intended to generate contaminated wastewater. Contaminated soil generated during excavation will be handled in accordance with Federal and State regulations.

5.0 Description of Cleanup Action

The cleanup action proposed by Ecology for implementation at the Site is shown on Figure 5.1 and is composed of a combination of remedial technologies, which are further described below. More specific design plans will be developed in the Engineering Design Report (EDR), which will be prepared prior to implementation of the cleanup action.

This section presents the cleanup action components, Applicable or Relevant and Appropriate Requirements (ARARs) for the cleanup action, restoration time frame; compliance monitoring; contingency actions; hazardous substances to remain in place; and ICs and engineering controls.

5.1 CLEANUP ACTION COMPONENTS

The cleanup action consists of the following components:

Soil Excavation and Off-Site Disposal. Shallow PCE contamination greater than proposed CULs in soil within the Source Property cVOC AOC will be excavated in three distinct areas as shown on Figure 5.1.

- The 5.5-foot excavation in the northwest portion of the Source Property cVOC AOC will remove PCE in shallow vadose zone soil that is greater than the CUL. Approximately 137 cubic yards (CY) of soil will be removed in total. Dewatering and shoring are not anticipated to be necessary to complete the excavation.
- The 5-foot excavation in the eastern portion of the Source Property cVOC AOC will remove PCE in shallow vadose zone soil greater than the CUL. Approximately 34 CY of soil will be removed in total. Dewatering and shoring are not anticipated to be necessary to complete the excavation. Given the age of the single sample result used to interpolate the extent of this excavation area, the presumed maximum excavation extent is included as a contingency and additional predesign data may be collected to replace the older data and to define the necessary extent of the excavation to remove contaminated soil.
- The 9-foot excavation in the south-central portion of the Source Property cVOC AOC is designed to remove PCE in vadose zone and saturated zone soil greater than the CUL. It is assumed that contaminated soil in this area is intermittently in contact with groundwater. Approximately 376 CY of soil will be removed in total. Dewatering is not anticipated to be necessary to complete the excavation, but shoring or sloped sidewalls will be necessary.
- Excavated areas will be backfilled with clean imported fill and restored with an asphalt or gravel surface. Removal of contaminated soil that exceeds Site CULs will eliminate potential ongoing sources of contamination to groundwater via leaching.

In Situ Groundwater Treatment. S-MZVI will be placed in the bottom of the 9-foot excavation and, prior to backfill, mixed with an excavator with clean material to stimulate biodegradation in

the Source Property cVOC AOC. In situ groundwater treatment will also be conducted throughout the groundwater plume to address cVOCs (specifically, PCE and vinyl chloride) at concentrations that are greater than their respective CULs. A mixture of liquid-activated carbon and S-MZVI, such as proprietary PlumeStop with S-MZVI mixture, will be injected under low pressure into the subsurface using a direct push drill rig to provide even distribution within the target groundwater treatment zones. The target treatment zone is expected to be 10 to 20 feet bgs in shallow groundwater (barriers 1 and 2), 15 to 25 feet bgs in the shallow to deep transition zone (barrier 3), and 25 to 35 feet bgs in deep groundwater (barriers 4 and 5). The colloidal matrix will coat soil particles to increase the adsorption of groundwater contaminants and act as a passive treatment zone to immobilize contaminants and passively treat groundwater as it flows downgradient. The design of in situ groundwater treatment will be further refined by predesign investigation prior to remedy implementation, and treatment progress will continue to be monitored throughout remedy implementation. The application of in situ treatment barriers will be adjusted as needed to ensure efficient degradation of cVOCs.

MNA and Groundwater Monitoring. MNA for groundwater is a component of the cleanup action after the removal of the soil source contamination. MNA is appropriate because source control is being conducted to the maximum extent practicable, there is evidence that biodegradation is occurring, and the groundwater contamination does not pose a risk to human health where MNA is proposed. Groundwater contamination does not pose a risk to ecological receptors because it does not reach the Sammamish River. As part of MNA, post-remedy groundwater monitoring will be required after cleanup action implementation. Long-term groundwater compliance monitoring will be implemented in accordance with a long-term compliance monitoring plan (LTCMP), which will be developed and approved by Ecology after implementation of the cleanup action. The LTCMP will describe long-term post-construction groundwater monitoring, including specific monitoring locations and frequency, and adaptive management to ensure the long-term protectiveness of the cleanup action. Groundwater compliance will be determined based on a comparison of groundwater data to Site CULs.

Institutional Controls. A Contaminated Soil and Groundwater Protocol (City of Bothell 2022) is incorporated into City of Bothell Development Standards, which apply to all permitted construction within Downtown Bothell. The protocol will be implemented as an IC, if necessary, to address remaining soil contamination in the ROW. The protocol additionally addresses development on private properties where contamination is known or suspected to exist. If a change in land use that could increase human health risk from vapor intrusion occurs on any private property within the Site during remedy implementation, the developer must fulfill state requirements including vapor intrusion assessment in accordance with current Ecology guidance. After remedy implementation is complete, ICs would not be required on private properties where CULs are met. ICs are described in further detail in Section 5.7.

Together, the individual technologies remove contaminant mass soil through excavation and in groundwater through adsorption and degradation. The cleanup action is a comprehensive final remedy for the Site that is compliant with all the applicable remedy selection requirements under

MTCA provided in WAC 173-340-360(2)(a) and WAC 173-340-360(2)(b) as well as the RAOs for the Site, as described in Section 4.4.

A detailed plan for implementing the cleanup action will be presented in an EDR for the Site. Predesign data will be collected prior to submittal of the EDR in accordance with an Ecology-approved Predesign Investigation Work Plan. The EDR will incorporate additional predesign data that are necessary to refine certain design elements of the cleanup action (for example, injection spacing and depth, injection rates, and reagent quantities).

5.2 APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS

The cleanup action must comply with MTCA cleanup regulations (WAC-173-340), federal laws, and substantive requirements of applicable local and state laws. ARARs are often categorized as location-specific, action-specific, or chemical-specific. ARARs for this cleanup action are summarized in Table 5.1.

Location-specific ARARs will be met through compliance with all applicable local, state, and federal regulations based on the physical location of the Site. Action-specific ARARs will be met through implementation of construction activities in compliance with all applicable construction-related requirements such as disposal for excavated soil and compliance with all applicable drilling-related requirements. Chemical-specific ARARs will be met through compliance with CULs.

Implementation of the cleanup action would typically trigger a suite of environmental permits; however, cleanup actions conducted under a Consent Decree (CD) with Ecology are exempt from the state and local ARAR procedural requirements, such as permitting and approval requirements (WAC 173-340-710(9)(b)). Cleanup actions must, however, demonstrate compliance with the substantive requirements of those ARARs (WAC 173-340-710(9)(c)). Cleanup actions are not exempt from procedural requirements of federal ARARs.

5.3 RESTORATION TIME FRAME

The soil CUL for PCE is expected to be met following completion of soil excavation, which is expected to take approximately 1 to 2 weeks from the start of construction. ICs and a ROW contamination protocol would be implemented as necessary to manage future exposures where contamination will remain in place as described in Section 5.6. The restoration time frame for cVOCs in groundwater is expected to be 6 to 8 years after injections are complete. Site groundwater is expected to return to natural geochemical conditions, resulting in restoration of arsenic to natural background concentrations less than the CUL, within 1 to 2 years of achieving the CULs for cVOCs.

5.4 COMPLIANCE MONITORING

Compliance monitoring to ensure the protectiveness of the cleanup action will be implemented in accordance with WAC 173-340-410. Detailed monitoring elements for construction will be

described in a Construction Compliance Monitoring Plan (CCMP), which will be prepared as part of remedial design. The CCMP will include a Health and Safety Plan (HASP), Sampling and Analysis Plan, and Quality Assurance Project Plan for monitoring and sample collection during cleanup action implementation. The CCMP will be included as an appendix to the Engineering Design Report, which will describe the approach and criteria for the engineering design of soil and groundwater cleanup actions at the Site. A post-remedy LTCMP will describe required long-term operations, maintenance, and monitoring after remedy implementation to ensure the long-term protectiveness of the remedy and will include a Groundwater Monitoring Plan and an updated HASP.

The purpose of the three types of compliance monitoring identified in WAC 173-340-410, with respect to how they will be implemented as part of the cleanup action implementation, is described as follows:

- **Protection monitoring** is used to confirm that human health and the environment are adequately protected during construction of the cleanup action and post-construction monitoring. Protection monitoring requirements will be described in Site-specific HASPs that address worker activities during the cleanup action construction and postconstruction groundwater monitoring. Protection monitoring will additionally include monitoring during remedy implementation to ensure that RELs for the vapor intrusion pathway are met where buildings are present at the Site. Protection monitoring requirements for vapor intrusion will be detailed in the CCMP.
- **Performance monitoring** is used to confirm that the cleanup action has attained cleanup standards and other performance standards. Performance monitoring will be conducted to document that remedial goals are being achieved, including cVOC reduction in groundwater after PlumeStop and S-MZVI injections. The combined liquid activated carbon and S-MZVI injections throughout the plume are designed to address groundwater contamination through adsorption, dechlorination, and degradation of PCE and its breakdown products.
- **Confirmation monitoring** is used to confirm the long-term effectiveness of the cleanup action after attainment of the cleanup standards. Confirmation samples would be collected along the sidewalls and bottom of the excavation to confirm that PCE concentrations in soil comply with the cleanup standards. Confirmation groundwater monitoring would be conducted following results from performance monitoring that verify that groundwater concentrations of cVOCs are less than CULs. Long-term monitoring of groundwater may be required to verify that the remedy remains effective. This is likely to be conducted through periodic reviews of the Site overseen by Ecology.

5.5 CONTINGENCIES

Ecology may require contingency actions, if data indicate that further action is necessary to control short-term vapor intrusion prior to compliance with cleanup standards on certain parcels, or that Site groundwater will not achieve CULs within the restoration time frame.

5.5.1 Short-Term Contingencies (Updated August 2022)

The potential for vapor intrusion was evaluated in the RI relative to current commercial properties within 30 feet horizontally of shallow cVOC groundwater plumes. When contaminant breakdown is complete and cVOC concentrations meet their groundwater CULs after remediation, cVOC concentrations in groundwater will also meet vapor intrusion SLs protective of potential future residential land use. However, before groundwater CULs for PCE breakdown products are achieved, additional contingency actions, such as vapor intrusion assessment or mitigation, may be necessitated by future changes in land use at private properties within 30 feet horizontally of shallow groundwater cVOC plumes. Short-term contingencies triggered by future changes in land use on private properties are addressed by the City's Soil and Groundwater Contamination Protocol.

Further, while the remedy is in process, groundwater concentrations must meet the RELs in Table 3.2 to ensure protection of commercial buildings overlying the plumes. If groundwater concentrations exceed the RELs, Ecology may require mitigation measures to address short-term worker exposures.

5.5.2 Long-Term Contingencies (Updated August 2022)

The potential exists that groundwater may not meet cVOC CULs in the AOC within 6 to 8 years, due to factors such as excess contaminant mass in groundwater or unfavorable groundwater geochemistry limiting the rate of degradation. It is expected that remedy performance will be continually assessed, and the application of in situ treatment will be adjusted as needed to ensure efficient degradation of cVOCs. Procedures for making adjustment to the application of in situ treatment will be developed in accordance with applicable Agency guidance and best practices (for example, U.S. Environmental Protection Agency and Interstate Technology Regulatory Council guidance documents). Compliance monitoring data analysis and recommended adjustments to the selected remedy of in situ treatment barriers will be presented in annual reports to Ecology during remedy implementation.

If groundwater compliance monitoring data continue to indicate that cVOC concentrations are not declining at a rate sufficient to reach CULs within 6 to 8 years, additional contingency action(s) will be evaluated. Ecology will determine whether a contingency action is necessary. Ecology will consider factors such as the severity of predicted CUL exceedance and volumetric proportion of groundwater not expected to reach CULs.

Potential contingency actions, if necessary, are anticipated to include application of other materials to bind contaminants, accelerate biodegradation and/or augment natural attenuation. If a contingency action is determined to be necessary, the proposed action will be detailed in a work plan for Ecology review and approval.

If arsenic concentrations in groundwater remain elevated at concentrations greater than 2 times the CUL after cVOC concentrations have met the CULs in accordance with the LTCMP, additional monitoring of arsenic and geochemical parameters in groundwater at selected well locations may

be considered to more closely evaluate the return to natural geochemical conditions at the Site. An IC restricting the groundwater from being used as drinking water may be required if arsenic concentrations remained elevated after remedy implementation.

More detailed information regarding the triggers for contingency actions and scope of such actions would be presented in the LTCMP.

5.6 HAZARDOUS SUBSTANCES TO REMAIN IN PLACE

The hazardous substances that will remain in place after implementation of the cleanup action include limited areas of PCE and TPH in soil.

PCE that will remain in soil includes one isolated area in the ROW near the intersection of NE 183rd Street and Bothell Way NE, approximately 90 feet southwest of the source property. Contamination at this location was measured at concentrations of 0.12 to 0.15 milligrams per kilogram and is presumed to extend to approximately 8 feet bgs. It is well-bounded by other soil samples less than the CUL, encompassing an approximate area of 750 square feet (SF) or less (approximately 220 CY). The detected PCE in soil at this location was attributed to adsorption to soil from highly PCE-contaminated groundwater and is expected to attenuate with ongoing groundwater treatment to reduce PCE. Existing data in this location may be supplemented or replaced by data collected for remedial design or as part of implementation of the cleanup action to document current conditions. A ROW contamination protocol is proposed as an IC to address this remaining area of PCE contamination if data show that current PCE concentrations are greater than the CUL.

GRO exceeding the CUL and other TPH constituents detected at elevated concentrations relative to ecological SLs and MTCA criteria within the footprint of the Site are associated with other cleanup sites or the UST on Speedy Glass property. This TPH is not associated with releases from the Site. An IC is not proposed for these areas of soil contamination that are unrelated to the Site. A single, isolated location on the source property where total DRO and ORO in soil exceed SLs for terrestrial ecological receptors may be associated with Site activities. The total area is less than 350 SF; therefore, an IC (i.e., a wildlife barrier to prevent future exposure to contaminated soil by ecological receptors) is not required per WAC 173-340-7492(2)(a)(i).

The extents of cVOC contamination in groundwater will be verified during remedial design to ensure that the selected remedy addresses all groundwater cVOC contamination. cVOC contamination in groundwater will be addressed with in situ treatment and is expected to achieve CULs. Arsenic is expected to achieve natural-background-based groundwater CULs after equilibration to natural geochemical conditions. Groundwater will achieve CULs throughout the standard POC, which is Site-wide; therefore, no groundwater contamination that exceeds CULs will remain in place after implementation of the cleanup action.

5.7 INSTITUTIONAL AND ENGINEERING CONTROLS

ICs are typically required to address remaining cVOC-contaminated soil exceeding the soil CUL. Because the remaining contamination will be beneath pavement in the Bothell Way NE ROW, and the cVOC concentrations in soil do not exceed SLs for worker protection in this area, the IC would primarily address limiting infiltration and disposition of contaminated soil and associated water (such as stormwater or decontamination wash water) during any future ROW work.

ICs would not be required for vapor intrusion on private property after implementation of the cleanup action, if groundwater CULs are met. Shallow groundwater contamination beneath the southern parcel of the source property and Speedy Glass and Ranch Drive-In properties currently exceeds the vapor intrusion SLs for unrestricted land use. Protection monitoring during remedy implementation will monitor groundwater for comparison to RELs developed for the current commercial usage of the Speedy Glass and Ranch Drive-in properties and inform potential mitigation measures, if determined to be necessary. If a change in land usage occurs on these private properties during remedy implementation, further vapor intrusion assessment and mitigation would be required for future development in accordance with the City's Soil and Groundwater Contamination Protocol.

If CULs are not met after remedy implementation, the City may address this contingency with a parcel restriction for future development permit applications. The parcel restriction would require that any development of an enclosed structure designed for residential use either (a) conduct additional vapor intrusion assessment in accordance with the most current Ecology guidance at the time of assessment or (b) install presumptive vapor intrusion mitigation measures.

6.0 Proposed Schedule for Implementation

Implementation of the cleanup action defined in this CAP is expected to occur over the next several years and may occur in phases, which will be more specifically determined as part of engineering design and will consider the City’s redevelopment needs. It is expected that proposed source removal via soil excavation will occur first, followed by in situ groundwater treatment. Documentation of the completion of the cleanup action construction will be presented in a Construction Completion Report submitted to Ecology. Groundwater compliance monitoring will follow the cleanup action construction.

The following table outlines a generalized schedule proposed for the cleanup action based on the expected chronology of key activities and deliverables.

Proposed Schedule of Deliverables and Activities

Implementation Step or Deliverable	Due Date ⁽¹⁾ or Time Frame
Submit Agency Review Draft Pre-Remedial Design Work Plan	Within 90 days of effective date of CD
Finalize Pre-Remedial Design Work Plan	30 days after receipt of Ecology’s final comments
Implement Pre-Remedial Design Work Plan	Initiate within 45 days of Ecology approval of final Work Plan
Submit Agency Review Draft EDR	Within 90 days of receipt of validated Pre-Remedial Design data
Finalize EDR	90 days after receipt of Ecology final comments
Acquire project permits	Prior to start of construction
Remedial Action Construction	Initiate within 120 days of Ecology approval of the EDR or after permit acquisition and contractor notice to proceed
Submit Agency Review Draft Construction Completion Report	180 days following construction completion
Submit Final Construction Completion Report	45 days after receipt of Ecology’s final comments
Submit Agency Review Draft LTCMP ⁽²⁾	180 days following construction completion
Finalize LTCMP ⁽³⁾	45 days following receipt of Ecology’s final comments on LTCMP
Implement Final LTCMP	In accordance with schedules established in the Final LTCMP; groundwater compliance monitoring to begin no later than 1 year after construction completion

Notes:

- 1 Schedule is in calendar days.
- 2 The LTCMP may be an appendix to the Construction Completion Report.
- 3 The LTCMP will be a “living” document and may be modified as deemed appropriate with Ecology concurrence.

Abbreviations:

- CD Consent Decree
- EDR Engineering Design Report
- LTCMP Long-term compliance monitoring plan

7.0 References

- City of Bothell. 2022. *Bothell Design and Construction Standards and Specifications, Appendix E: Contaminated Soil and Groundwater Protocol*. Public Works Department.
- Floyd|Snider. 2021. *Remedial Investigation and Feasibility Study*. Prepared for City of Bothell. July.
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- Washington State Department of Ecology (Ecology). 2013. *Agreed Order No. DE 9704*. 18 April.
- _____. 2018. *Frequently Asked Questions (FAQs) Regarding Vapor Intrusion (VI) and Ecology's 2009 Draft VI Guidance. Implementation Memorandum No. 21*. Publication No. 18-09-046. November.
- _____. 2021. *Draft Guidance for Evaluating Vapor Intrusion in Washington State*. Investigation and Remedial Action. Toxics Cleanup Program. Publication No. 09-09-047. Originally published October 2009. Revised February 2016 and April 2018.

- _____. 2022a. *Natural Background Groundwater Arsenic Concentrations in Washington State. Study Results.* Toxics Cleanup Program. Publication No. 14-09-044. January.
- _____. 2022b. *Guidance for Evaluating Vapor Intrusion in Washington State, Investigation and Remedial Action.* Toxics Cleanup Program. Publication NO. 09-09-047. March.

**Ultra Custom Care Cleaners Site
Cleanup Action Plan**

Tables

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**Table 5.1
Applicable Local, State, and Federal Laws for the Selected Cleanup Alternative**

Standard, Requirement, or Limitation ⁽¹⁾	Description
Location-Specific Requirements ⁽²⁾	
Downtown Subarea Regulations	
City of Bothell—Downtown Subarea Regulations (BMC Chapter 14.04)	Implements the requirements imposed on the City of Bothell to guide private and public investment activities and support the growth and continued revitalization of Bothell’s downtown.
Cultural Resources	
Native American Graves Protection and Repatriation Act (25 USC 3001 through 3113; 43 CFR Part 10) Washington's Indian Graves and Records Law (RCW 27.44)	These statutes prohibit the destruction or removal of Native American cultural items and require written notification of inadvertent discovery to the appropriate agencies and Native American tribe. These programs are applicable to the remedial action if cultural items are found. The activities must cease in the area of the discovery; a reasonable effort must be made to protect the items discovered; and notice must be provided.
Archaeological Resources Protection Act (16 USC 470aa et seq.; 43 CFR part 7)	This program sets forth requirements that are triggered when archaeological resources are discovered. These requirements only apply if archaeological items are discovered during implementation of the selected remedy.
National Historic Preservation Act (16 USC 470 et seq.; 36 CFR parts 60, 63, and 800)	This program sets forth a national policy of historic preservation and provides a process that must be followed to ensure that impacts of actions on archaeological, historic, and other cultural resources are protected.
Action-Specific Requirements ⁽³⁾	
Evaluate Environmental Impacts	
SEPA Rules (RCW 43.21C, WAC 197-11)	Establishes the state's policy for protection and preservation of the natural environment.
Construction and Maintenance of Wells	
Washington Administrative Code: UIC Program (WAC 173-218)	Establishes requirements to protect groundwater by regulating the discharge of fluids from injection wells. The UIC program is administered under Title 40 CFR parts 144, 145, 146, and 147 and authorized by the SDWA.
Washington Administrative Code: Minimum Standards for Construction and Maintenance of Wells (WAC 173-160)	Establishes requirements for construction, abandonment, and decommissioning of monitoring wells and soil borings.
Washington Administrative Code: Regulation and Licensing of Well Contractors and Operators (WAC 173-162)	Establishes requirements for licensing and training well contractors and operators.
Upland Disposal of Investigation-Derived Waste	
Resource Conservation and Recovery Act (42 USC 6921-6949a; 40 CFR Part 268, Subtitles C and D)	Establishes requirements for the identification, handling, and disposal of hazardous and nonhazardous waste.
Dangerous Waste Regulations (RCW 70.105; WAC 173-303)	Establishes regulations that are the state equivalent of RCRA requirements for determining whether a waste is a state dangerous waste. This regulation also provides requirements for the management of dangerous wastes.
Solid Waste Disposal Act (42 USC Sec. 325103259, 6901-6991; 40 CFR 257,258) Federal Land Disposal Requirements (40 CFR part 268)	Protects health and the environment and promotes conservation of valuable material and energy resources.
Minimum Functional Standards for Solid Waste Handling (WAC 173-304)	Sets minimum functional standards for the proper handling of all solid waste materials originating from residences, commercial, agricultural, and industrial operations as well as other sources.
Solid Waste Handling Standards (WAC 173-350 and WAC 173-351)	Establishes minimum standards for handling and disposal of solid waste. Solid waste includes wastes that are generated by site remediation, including contaminated soils, construction and demolition wastes, and garbage. Soils classified as “contained-in-waste” must be delivered to a solid waste landfill permitted under WAC 173-351 inside Washington State.
Upland Disposal of Investigation-Derived Waste	
City of Bothell—Municipal Code for Utilities and Infrastructure: Grading (BMC Chapter 18.05)	The provisions of the grading chapter (18.05) apply to grading, excavation, and earthwork construction, including fills and embankments. No grading should be performed without obtaining a permit from the City of Bothell.

**Table 5.1
Applicable Local, State, and Federal Laws for the Selected Cleanup Alternative**

Standard, Requirement, or Limitation ⁽¹⁾	Description
Action-Specific Requirements ⁽³⁾ (cont.)	
Wastewater/Stormwater Discharge	
Water Pollution Control / State Waste Discharge Permit Program / NPDES Permit Program RCW 90.48; WAC 173-216, WAC 173-220	Washington State has been delegated authority to issue NPDES permits. CWA Section 301, 302, and 303 require states to adopt water quality standards and implement a NPDES permitting process. The Washington Water Pollution Control Law and regulations address this requirement.
NPDES (CWA Part 402)	
King County Industrial Waste Program	The King County Industrial Waste Program monitors discharge of liquid waste to the wastewater (sanitary sewer) system. Any discharges during construction to the wastewater system must be approved by King County prior to discharge. The King County Industrial Waste Program monitors volume and water quality of liquid waste discharged to the system.
Worker Safety	
Occupational Health and Safety Standards: Hazardous Waste Operations and Emergency Response/General Occupational Health Standards (Health and Safety 29 CFR 1901.120; and WAC 296-62)	The HAZWOPER standard regulates health and safety operations for hazardous waste sites. The health and safety regulations describe federal requirements for health and safety training for workers at hazardous waste sites.
Occupational Safety and Health Act (29 USC 653, 655, 657) Occupational Safety and Health Standards (29 CFR 1910)	Employee health and safety regulations for construction activities and general construction standards as well as regulations for fire protection, materials handling, hazardous materials, personal protective equipment, and general environmental controls. Hazardous waste site work requires employees to be trained prior to participation in site activities, medical monitoring, monitoring to protect employees from excessive exposure to hazardous substances, and decontamination of personnel and equipment.
Washington Industrial Safety and Health Act (RCW 49.17) Washington Safety Standards for Construction Work/General Occupational Health Standards (WAC 296-62, WAC 296-155)	Adopts the OSHA standards that govern the conditions of employment in all workplaces. The regulations encourage efforts to reduce safety and health hazards in the workplace and set standards for safe work practices for dangerous areas such as trenches, excavations, and hazardous waste sites.
Worker Safety	
Federal, State, and Local Air Quality Protection Programs State Implementation of Ambient Air Quality Standards NWAPA Ambient and Emission Standards Regional Standards for Fugitive Dust Emissions Toxic Air Pollutants	Regulations promulgated under the federal Clean Air Act (42 USC 7401) and the Washington State Clean Air Act (RCW 70.94) govern the release of airborne contaminants from point and non-point sources. Local air pollution control authorities such as the PSCAA have also set forth regulations for implementing these air quality requirements. These requirements may be applicable to the Site for the purposes of dust control should the selected remedial alternatives require excavation activities. WAC 173-340-750 establishes air cleanup standards, which applies to concentrations of hazardous substances in the air originating from a remedial action at the Site.
Miscellaneous	
Noise Control Act of 1974/Maximum Environmental Noise Levels (RCW 70.107, WAC 173-60)	Establishes maximum noise levels.
National Electrical Code (NFPA 70) and the Seattle Electric Code Supplement for Class 1 Division 2 Environments.	Establishes restrictions and guidelines for temporary and/or permanent electrical installations.
Chemical-Specific Requirements ⁽⁴⁾	
Groundwater Requirements	
Model Toxics Control Act (WAC 173-340)	Establishes Washington State administrative processes and standards to identify, investigate, and clean up facilities where hazardous substances are located.
Drinking Water Standards—State MCLs (WAC 246-290-310)	Establishes standards for contaminant levels in drinking water for water system purveyors.

**Table 5.1
Applicable Local, State, and Federal Laws for the Selected Cleanup Alternative**

Standard, Requirement, or Limitation ⁽¹⁾	Description
Chemical-Specific Requirements ⁽⁴⁾ (cont.)	
Groundwater Requirements (cont.)	
National Recommended Water Quality Standards 40 CFR 131	These water quality standards define the water quality goals of the water body by designating the use or uses to be made of the water and by setting criteria necessary to protect the uses. States adopt water quality standards from 40 CFR 131 to protect public health or welfare, enhance the quality of water, and serve the purposes of the CWA. Washington State water quality standards (MCLs) are presented in WAC.
Washington State Maximum Contaminant Levels (WAC 246-290-310)	
Soil Requirements	
MTCA (WAC 173-340)	Establishes Washington State administrative processes and standards to identify, investigate, and clean up facilities where hazardous substances are located.
Air Requirements	
MTCA (WAC 173-340-750)	Establishes screening and cleanup levels to evaluate groundwater and soil vapor to indoor air risk for occupants of buildings

Notes:

- 1 Projects conducted under a consent decree are exempt from the procedural requirements of most state and local permits (RCW 70.105D.090); however, the remedial actions must still comply with the substantive requirements of the exempt permits. Therefore, for exempt permits, the statutory review timelines do not apply; actual timelines will be based on negotiations with the jurisdiction or agency, which should result in an expedited review timeline.
- 2 Location-specific requirements are applicable to the specific area where the Site is located and can restrict the performance of activities, including cleanup actions, solely because they occur in specific locations.
- 3 Action-specific requirements are applicable to certain types of activities that occur or technologies that are used during the implementation of cleanup actions.
- 4 Chemical-specific requirements are applicable to the types of contaminants present at the Site. The cleanup of contaminated media at the Site must meet the CULs developed under MTCA; these CULs are considered chemical-specific requirements.

Abbreviations:

- BMC Bothell Municipal Code
- CFR Code of Federal Regulations
- CWA Clean Water Act
- HAZWOPER Health and Safety for Hazardous Waste Operations and Emergency Management
- MCL Maximum Contaminant Level
- MTCA Model Toxics Control Act
- NFPA National Fire Protection Association
- NPDES National Pollutant Discharge Elimination System
- NWAPA Northwest Air Pollution Authority
- OSHA Occupational Safety and Health Act
- PSCAA Puget Sound Clean Air Authority
- RCRA Resource Conservation and Recovery Act
- RCW Revised Code of Washington
- SDWA Safe Drinking Water Act
- SEPA State Environmental Policy Act
- Site Ultra Custom Care Cleaners Site
- UIC Underground Injection Control
- USC United States Code
- WAC Washington Administrative Code

**Ultra Custom Care Cleaners Site
Cleanup Action Plan**

Figures

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




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**Cleanup Action Plan
 Ultra Custom Care Cleaners Site
 Bothell, Washington**

**Figure 1.1
 Vicinity Map**

Legend

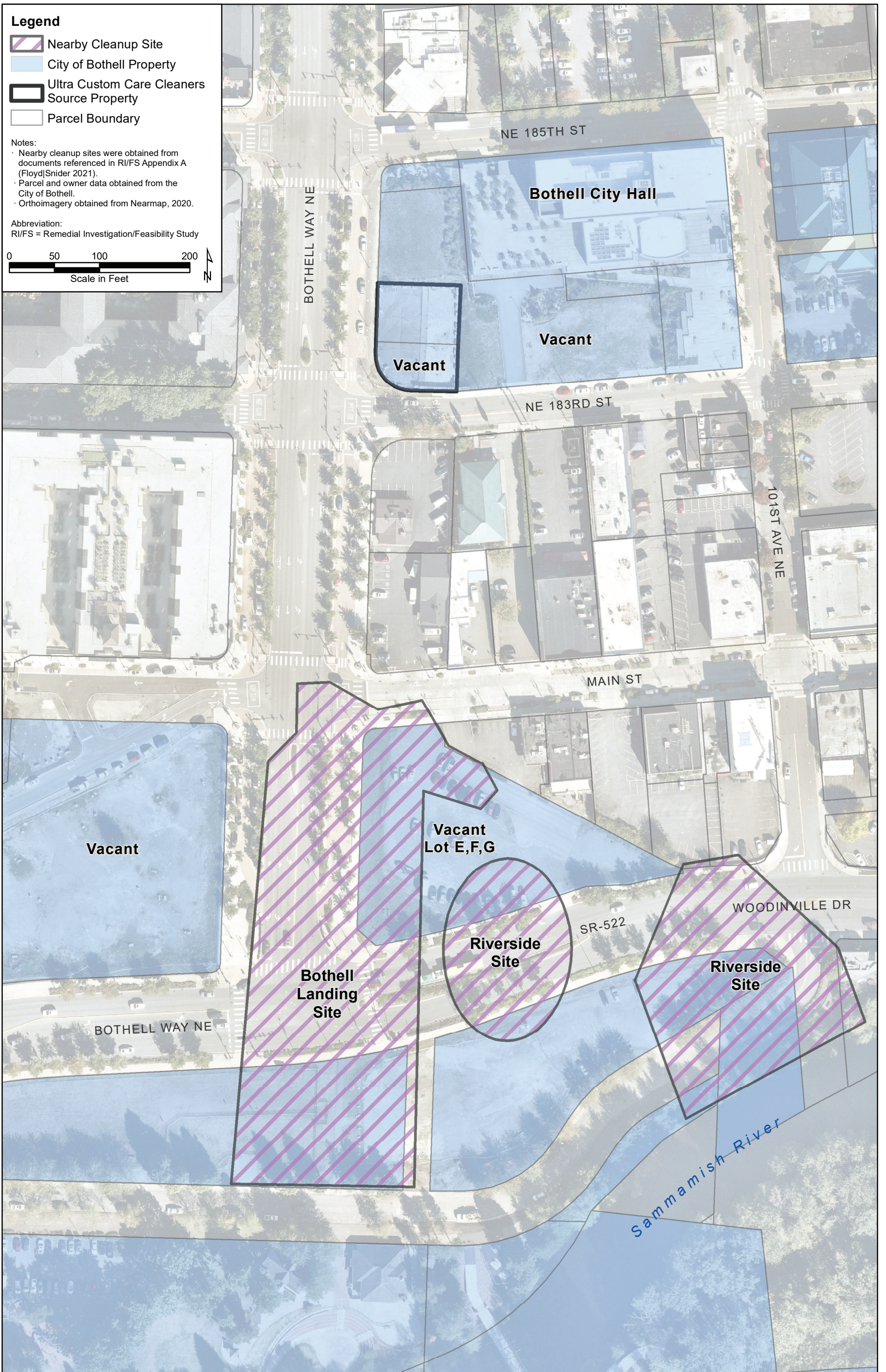
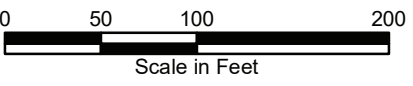
-  Nearby Cleanup Site
-  City of Bothell Property
-  Ultra Custom Care Cleaners Source Property
-  Parcel Boundary

Notes:

- Nearby cleanup sites were obtained from documents referenced in RI/FS Appendix A (Floyd|Snider 2021).
- Parcel and owner data obtained from the City of Bothell.
- Orthoimagery obtained from Nearmap, 2020.

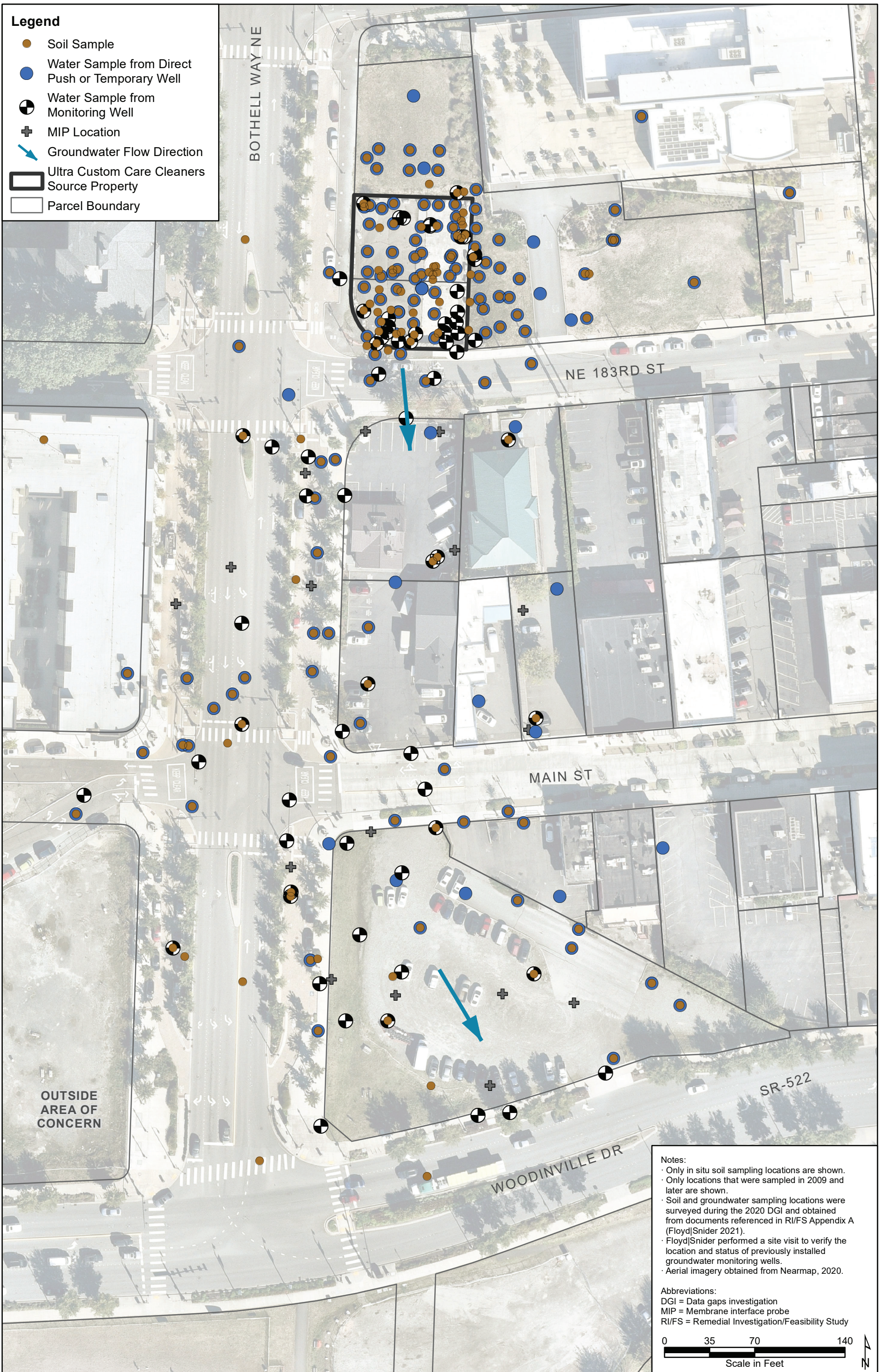
Abbreviation:

RI/FS = Remedial Investigation/Feasibility Study



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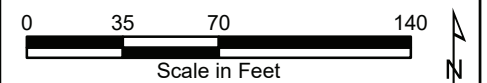
- Soil Sample
- Water Sample from Direct Push or Temporary Well
- ⊗ Water Sample from Monitoring Well
- ⊕ MIP Location
- ➡ Groundwater Flow Direction
- ▭ Ultra Custom Care Cleaners Source Property
- ▭ Parcel Boundary

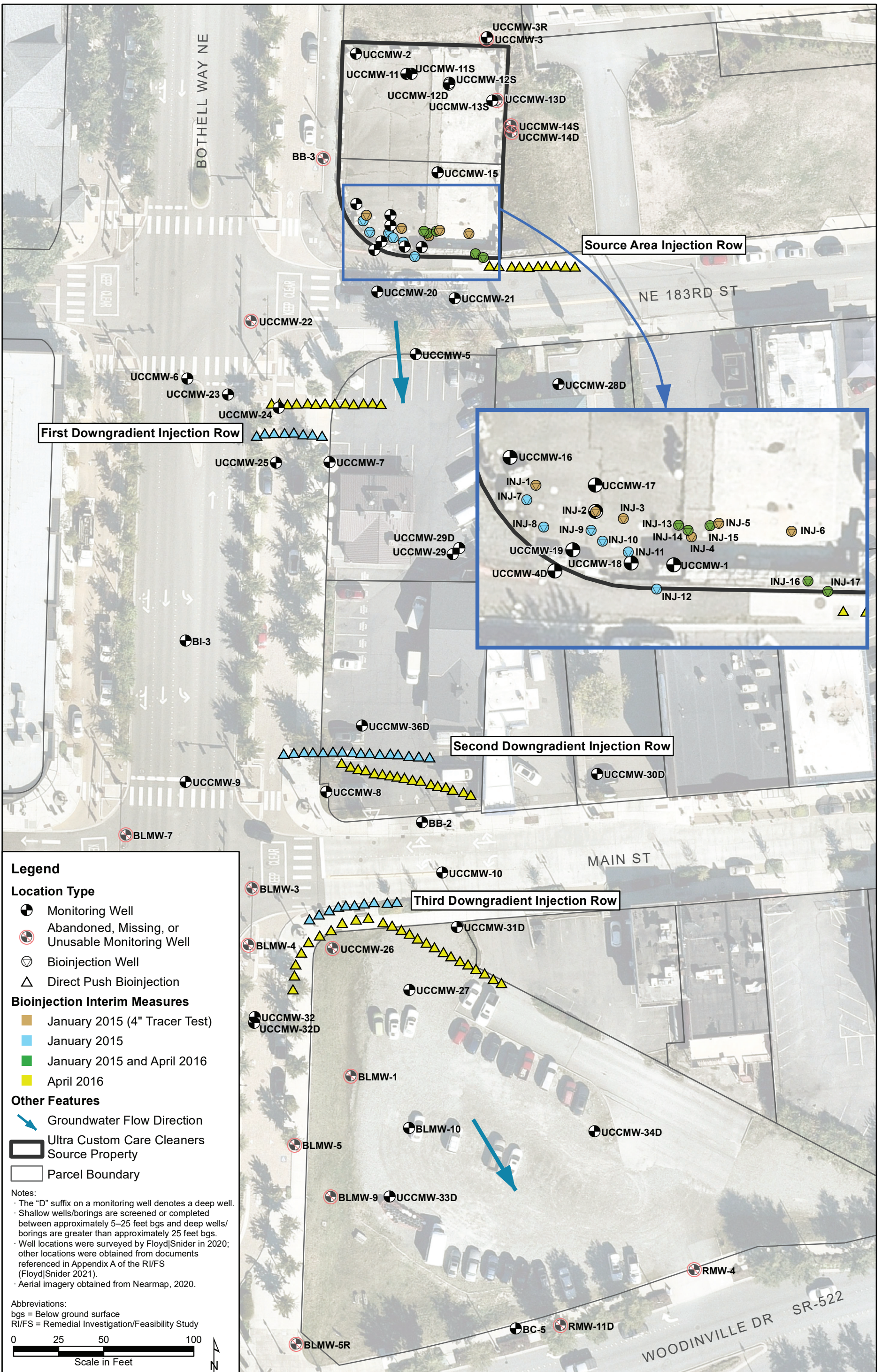


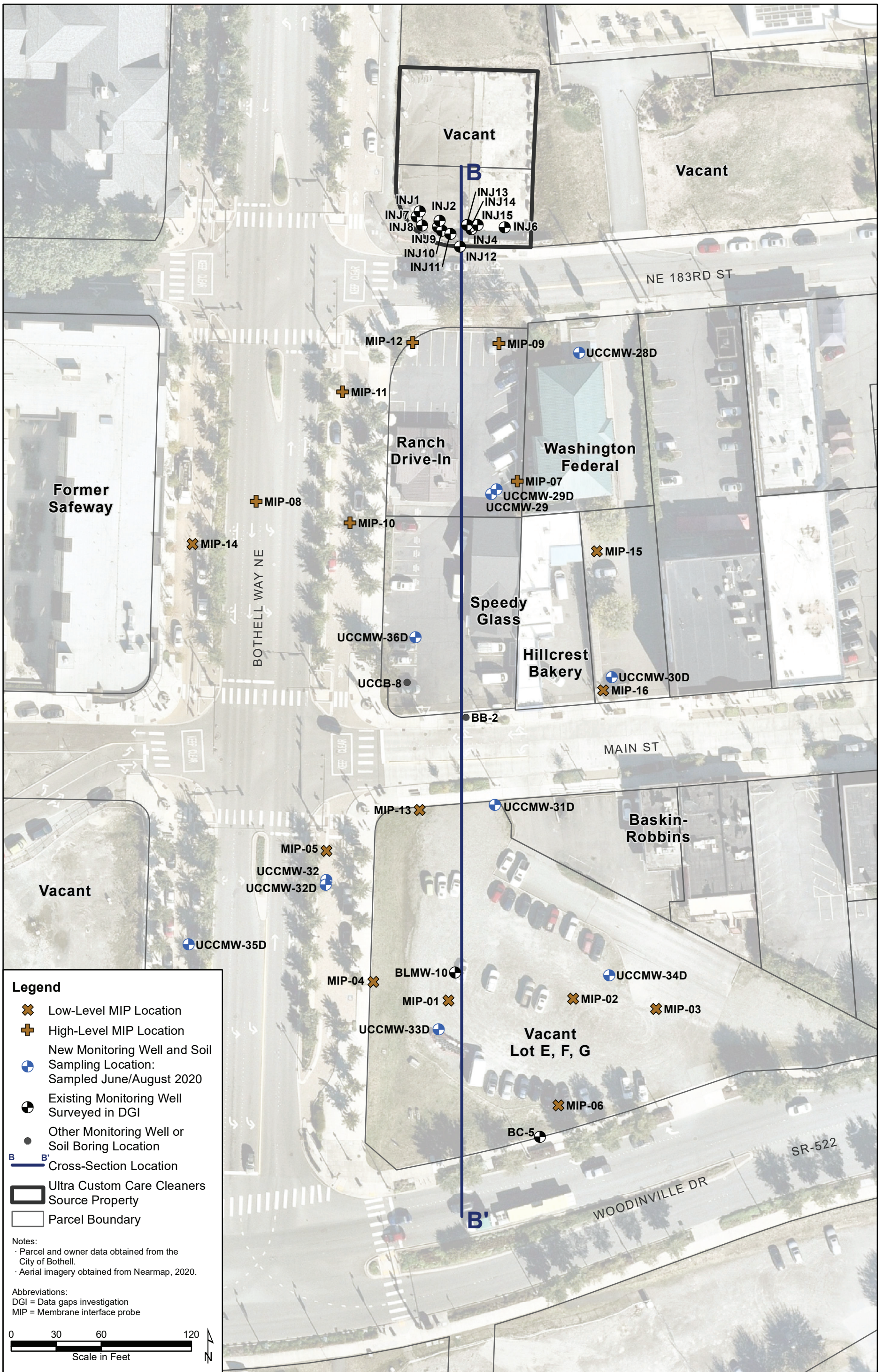
Notes:

- Only in situ soil sampling locations are shown.
- Only locations that were sampled in 2009 and later are shown.
- Soil and groundwater sampling locations were surveyed during the 2020 DGI and obtained from documents referenced in RI/FS Appendix A (Floyd|Snider 2021).
- Floyd|Snider performed a site visit to verify the location and status of previously installed groundwater monitoring wells.
- Aerial imagery obtained from Nearmap, 2020.

Abbreviations:
 DGI = Data gaps investigation
 MIP = Membrane interface probe
 RI/FS = Remedial Investigation/Feasibility Study





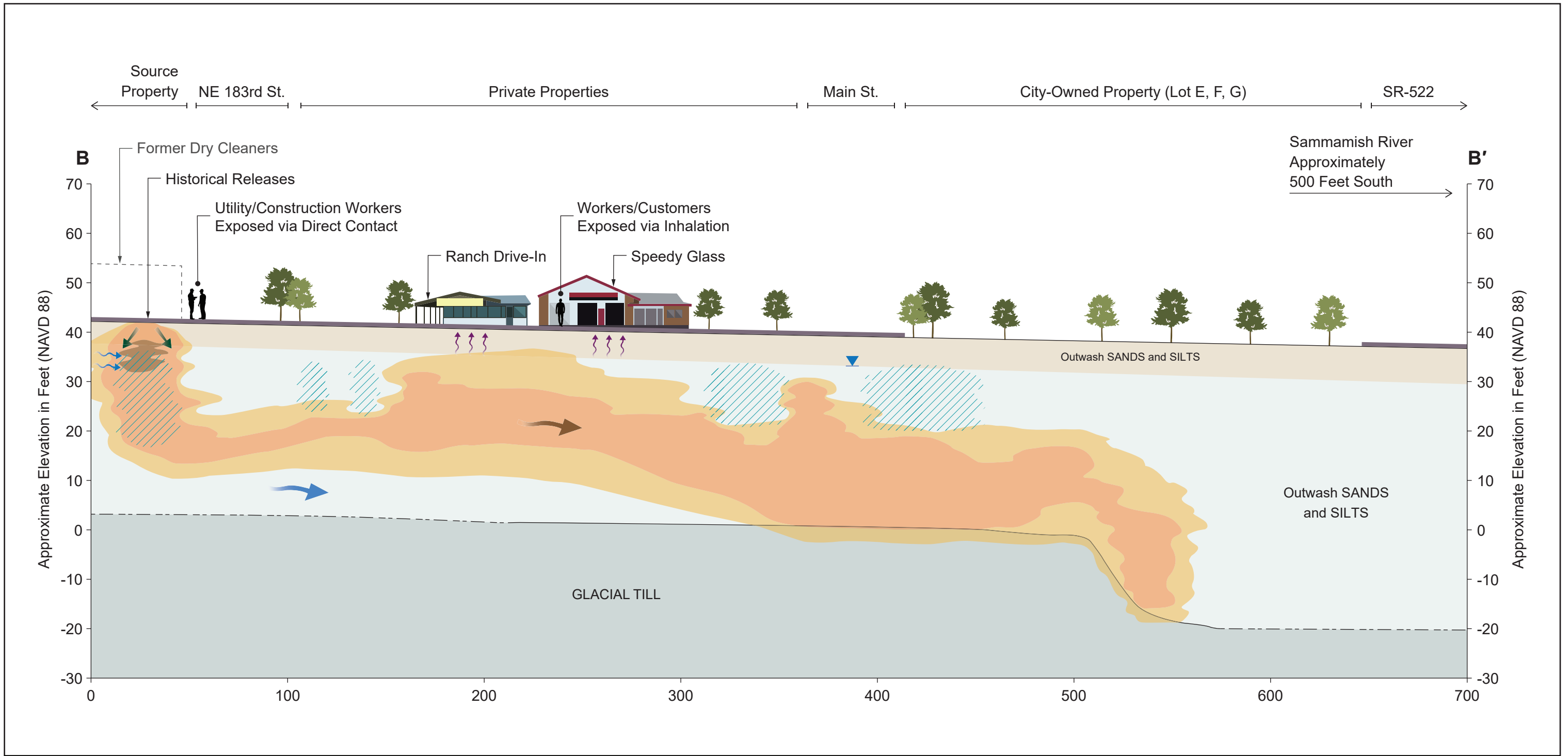


- Legend**
- ✕ Low-Level MIP Location
 - ⊕ High-Level MIP Location
 - ⊕ New Monitoring Well and Soil Sampling Location: Sampled June/August 2020
 - ⊕ Existing Monitoring Well Surveyed in DGI
 - Other Monitoring Well or Soil Boring Location
 - B B' Cross-Section Location
 - ▭ Ultra Custom Care Cleaners Source Property
 - ▭ Parcel Boundary

Notes:
 · Parcel and owner data obtained from the City of Bothell.
 · Aerial imagery obtained from Nearmap, 2020.

Abbreviations:
 DGI = Data gaps investigation
 MIP = Membrane interface probe



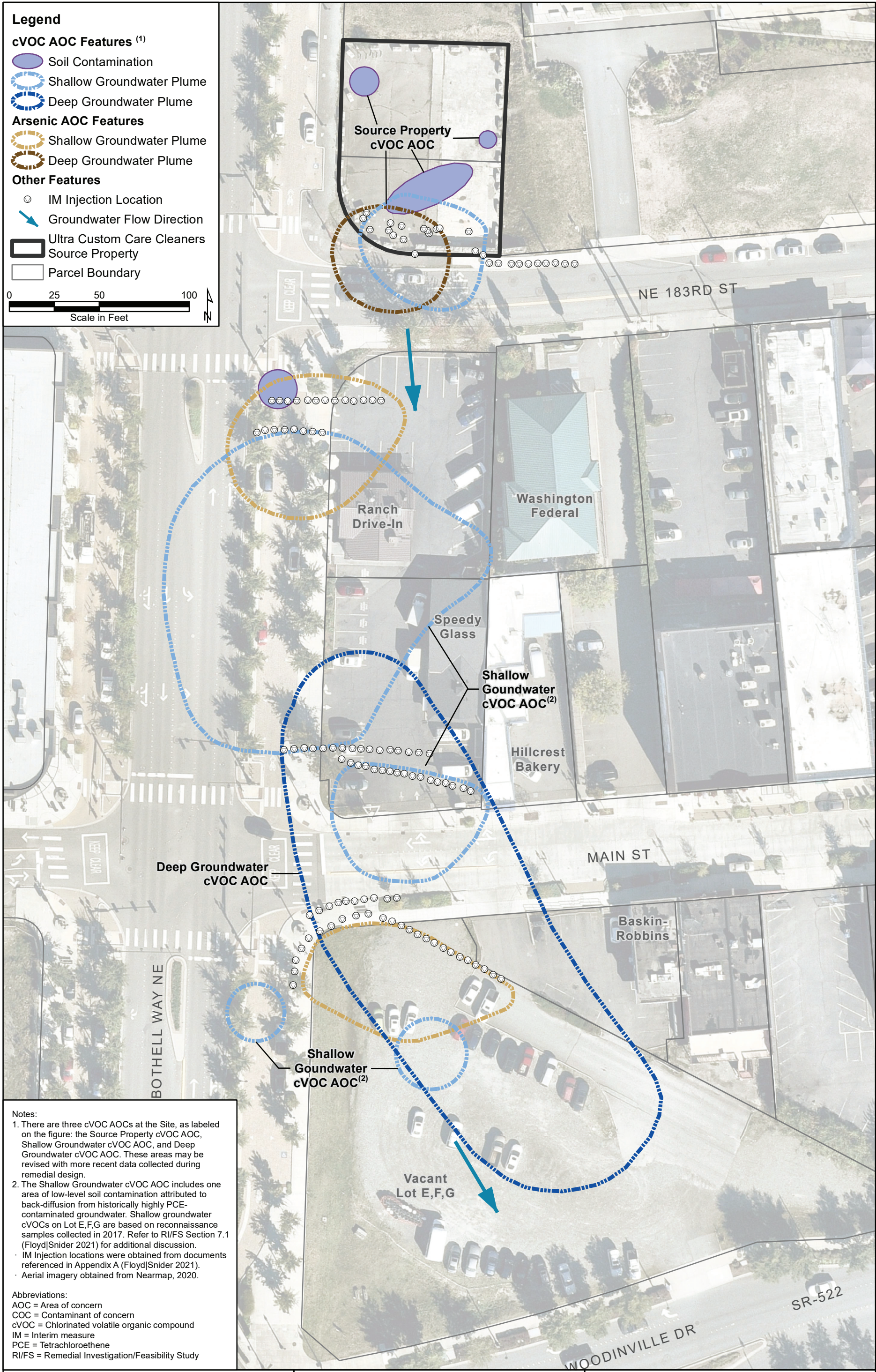


Legend

Pavement	Downward Migration through Vadose Zone	Leaching to Groundwater
Contact Boundary Between Lithologies (dashed where inferred)	Injections	Vapor Intrusion
Groundwater Level	Soil Contamination	Abbreviations:
Groundwater Flow Direction (approximate)	cVOCs in Groundwater (approximate) >2x CUL	CUL = Cleanup level
Plume Migration	cVOCs in Groundwater (approximate) >1-2x CUL	cVOC = Chlorinated volatile organic compound
		NAVD 88 = North American Vertical Datum of 1988

Horizontal Scale in Feet: 0, 50, 100
Vertical Scale in Feet: 0, 20, 40

I:\GIS\Projects\COBothell-UltraVA\Cleanup Action Plan\Figure 2.4 Conceptual Site Model Cross-Section.ai
6/15/2022



Legend

cVOC AOC Features ⁽¹⁾

- Soil Contamination
- Shallow Groundwater Plume
- Deep Groundwater Plume

Arsenic AOC Features

- Shallow Groundwater Plume
- Deep Groundwater Plume

Other Features

- IM Injection Location
- Groundwater Flow Direction
- Ultra Custom Care Cleaners Source Property
- Parcel Boundary

0 25 50 100
Scale in Feet

Notes:


1. There are three cVOC AOCs at the Site, as labeled on the figure: the Source Property cVOC AOC, Shallow Groundwater cVOC AOC, and Deep Groundwater cVOC AOC. These areas may be revised with more recent data collected during remedial design.
2. The Shallow Groundwater cVOC AOC includes one area of low-level soil contamination attributed to back-diffusion from historically highly PCE-contaminated groundwater. Shallow groundwater cVOCs on Lot E,F,G are based on reconnaissance samples collected in 2017. Refer to RI/FS Section 7.1 (Floyd|Snider 2021) for additional discussion.

- IM Injection locations were obtained from documents referenced in Appendix A (Floyd|Snider 2021).
- Aerial imagery obtained from Nearmap, 2020.


Abbreviations:
 AOC = Area of concern
 COC = Contaminant of concern
 cVOC = Chlorinated volatile organic compound
 IM = Interim measure
 PCE = Tetrachloroethene
 RI/FS = Remedial Investigation/Feasibility Study

Legend

Cleanup Action Components

 Source Area Soil Excavation and ZVI Application Area


5 FEET Excavation Depth

 In situ Groundwater Treatment⁽¹⁾


cVOC AOC Features⁽²⁾


 Soil Contamination

 Shallow Groundwater Plume


 Deep Groundwater Plume


Monitoring Well Sampled in 2020

 Deep

 Shallow

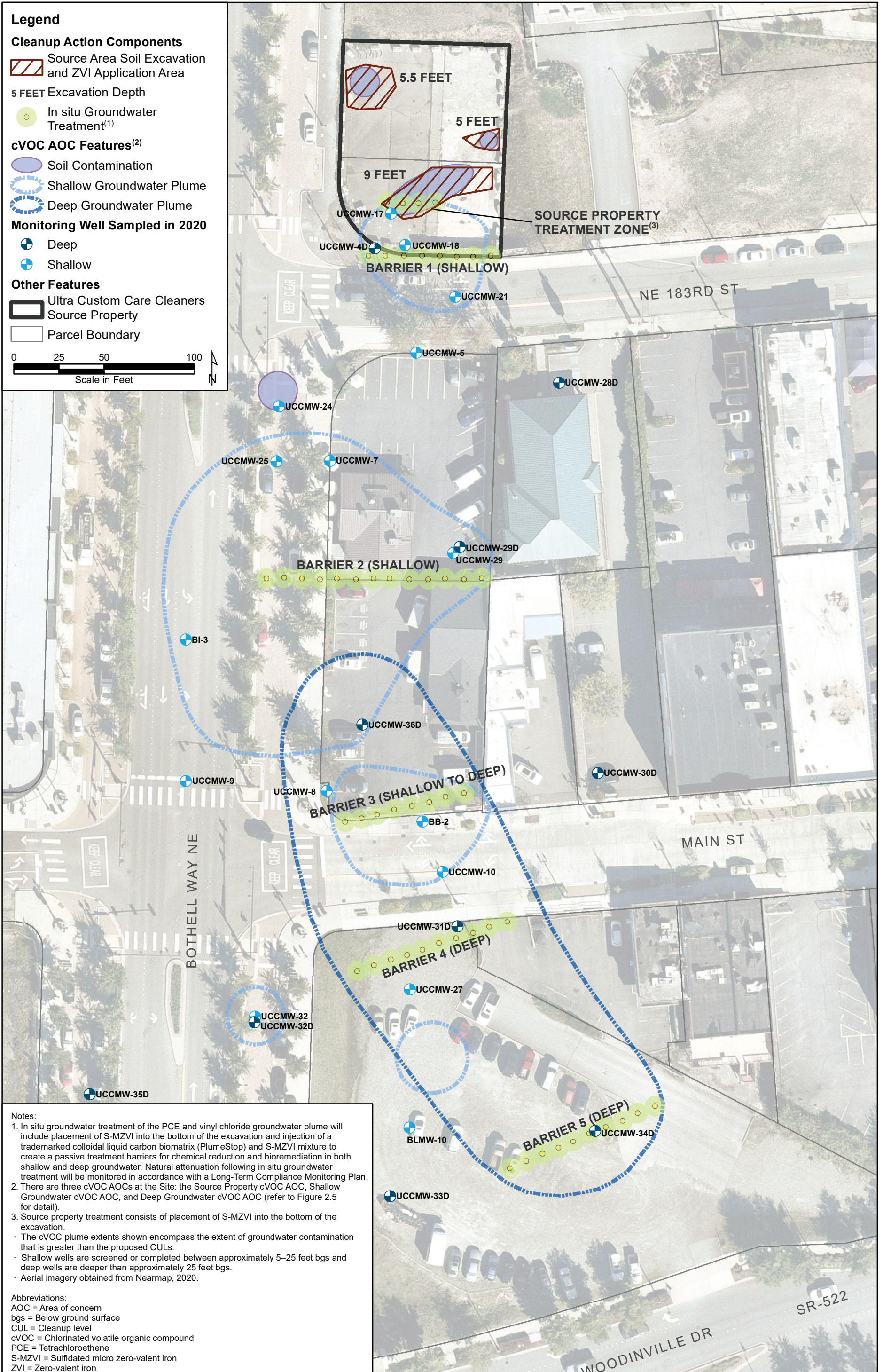
Other Features

 Ultra Custom Care Cleaners

 Source Property

 Parcel Boundary

0 25 50 100
Scale in Feet



Notes:

1. In situ groundwater treatment of the PCE and vinyl chloride groundwater plume will include placement of S-MZVI into the bottom of the excavation and injection of a trademarked colloidal liquid carbon biomatrix (PlumeStop) and S-MZVI mixture to create a passive treatment barriers for chemical reduction and bioremediation in both shallow and deep groundwater. Natural attenuation following in situ groundwater treatment will be monitored in accordance with a Long-Term Compliance Monitoring Plan.
2. There are three cVOC AOCs at the Site: the Source Property cVOC AOC, Shallow Groundwater cVOC AOC, and Deep Groundwater cVOC AOC (refer to Figure 2.5 for detail).
3. Source property treatment consists of placement of S-MZVI into the bottom of the excavation.
 - The cVOC plume extents shown encompass the extent of groundwater contamination that is greater than the proposed CULs.
 - Shallow wells are screened or completed between approximately 5–25 feet bgs and deep wells are deeper than approximately 25 feet bgs.
 - Aerial imagery obtained from Nearmap, 2020.

Abbreviations:

- AOC = Area of concern
- bgs = Below ground surface
- CUL = Cleanup level
- cVOC = Chlorinated volatile organic compound
- PCE = Tetrachloroethene
- S-MZVI = Sulfidated micro zero-valent iron
- ZVI = Zero-valent iron

Exhibit C

**EXHIBIT C:
Scope of Work and Schedule**

Implementation Step or Deliverable	Due Date ⁽¹⁾ or Time Frame
Submit Agency Review Draft Pre-Remedial Design Work Plan	Within 90 days of effective date of CD
Quarterly Progress Report	Due the 15 th day of the month following each quarter, due in April, July, October, and January ⁽²⁾
Finalize Pre-Remedial Design Work Plan	45 days after receipt of Ecology's final comments
Implement Pre-Remedial Design Work Plan	Initiate within 45 days of Ecology approval of final Work Plan
Submit Agency Review Draft EDR	Within 90 days of receipt of validated Pre-Remedial Design data
Finalize EDR ⁽³⁾	90 days after receipt of Ecology's final comments
Acquire project permits	Prior to start of construction
Phase 1 Remedial Action Construction ⁽⁴⁾	Initiate within 120 days of Ecology approval of the EDR or after permit acquisition and contractor notice to proceed
Phase 1 Construction Summary and as-built drawings	120 days following Phase 1 Construction
Contingency Phase 2 Remedial Action Construction ^(4,5)	Contingent on receipt and evaluation of Phase 1 confirmation monitoring data. If Phase 2 is determined to be necessary, initiate within 90 days after decision to proceed.
Submit Agency Review Draft Construction Completion Report	180 days following construction completion ⁽⁶⁾
Submit Final Construction Completion Report	45 days after receipt of Ecology's final comments
Submit Agency Review Draft LTCMP ⁽⁷⁾	180 days following construction completion
Finalize LTCMP ⁽⁷⁾	45 days following receipt of Ecology's final comments on LTCMP
Implement Final LTCMP ⁽⁸⁾	In accordance with schedules established in the Final LTCMP; groundwater compliance monitoring to begin no later than 1 year after construction completion
LTCMP Annual Monitoring Reports	Due March 1 for the prior calendar year after long-term monitoring begins.
Ecology Periodic Reviews	Every 5 years after construction completion

Notes:

- 1 Schedule is in calendar days.
- 2 Quarterly progress reporting begins with the first completed quarter after the effective date of the CD.
- 3 Will include CCMP as an appendix.
- 4 Detailed scopes and implementation criteria for phased remedial action construction and confirmation monitoring will be presented in the EDR.
- 5 The need for Phase 2 contingency construction will be determined in coordination with Ecology after receipt and evaluation of Phase 1 confirmation monitoring data
- 6 Construction completion is defined as: completion of Phase 1 construction and confirmation monitoring; or completion of contingency Phase 2 construction, if Phase 2 is determined to be necessary.
- 7 The LTCMP may be an appendix to the Construction Completion Report for the last phase of construction.
- 8 The LTCMP will be a “living” document and may be modified as deemed appropriate with Ecology concurrence.

Abbreviations:

CD	Consent Decree
CCMP	Construction Compliance Monitoring Plan
EDR	Engineering Design Report
LTCMP	Long-term Compliance Monitoring Plan

Exhibit D

**Exhibit D
List of ARARs and Permits**

Standard, Requirement, or Limitation	Description	Permit Required?
Location-Specific Requirements ⁽¹⁾		
Downtown Subarea Regulations		
City of Bothell—Downtown Subarea Regulations (BMC Chapter 14.04)	Implements the requirements imposed on the City of Bothell to guide private and public investment activities and support the growth and continued revitalization of Bothell's downtown.	No
Cultural Resources		
Native American Graves Protection and Repatriation Act (25 USC 3001 through 3113; 43 CFR Part 10) Washington's Indian Graves and Records Law (RCW 27.44)	These statutes prohibit the destruction or removal of Native American cultural items and require written notification of inadvertent discovery to the appropriate agencies and Native American tribe. These programs are applicable to the remedial action if cultural items are found. The activities must cease in the area of the discovery; a reasonable effort must be made to protect the items discovered; and notice must be provided.	No
Archaeological Resources Protection Act (16 USC 470aa et seq.; 43 CFR part 7)	This program sets forth requirements that are triggered when archaeological resources are discovered. These requirements only apply if archaeological items are discovered during implementation of the selected remedy.	No
National Historic Preservation Act (16 USC 470 et seq.; 36 CFR parts 60, 63, and 800)	This program sets forth a national policy of historic preservation and provides a process that must be followed to ensure that impacts of actions on archaeological, historic, and other cultural resources are protected.	No
Action-Specific Requirements ⁽²⁾		
Evaluate Environmental Impacts		
SEPA Rules (RCW 43.21C, WAC 197-11)	Establishes the state's policy for protection and preservation of the natural environment.	Yes; Planned Action Determination Received
Construction and Maintenance of Wells		
Washington Administrative Code: UIC Program (WAC 173-218)	Establishes requirements to protect groundwater by regulating the discharge of fluids from injection wells. The UIC program is administered under Title 40 CFR parts 144, 145, 146, and 147 and authorized by the SDWA.	Yes
Washington Administrative Code: Minimum Standards for Construction and Maintenance of Wells (WAC 173-160)	Establishes requirements for construction, abandonment, and decommissioning of monitoring wells and soil borings.	No
Washington Administrative Code: Regulation and Licensing of Well Contractors and Operators (WAC 173-162)	Establishes requirements for licensing and training well contractors and operators.	No
Implement Remedial Construction		
City of Bothell—Municipal Code for Utilities and Infrastructure: Grading (BMC Chapter 18.05)	The provisions of the grading chapter (18.05) apply to grading, excavation, and earthwork construction, including fills and embankments.	Yes; for excavation >50 cubic yards
City of Bothell—Municipal Code for Utilities and Infrastructure: Bothell Water (BMC 18.06)	The provisions of the Bothell Water chapter apply to hydrant service and use at construction sites.	Yes; for in situ treatment injection
City of Bothell—Municipal Code for Transportation: Construction (BMC 17.08)	The provisions of the construction chapter apply to occupation and disturbance of City of Bothell rights-of-way.	No
Upland Disposal of Investigation-Derived Waste		
Resource Conservation and Recovery Act (42 USC 6921-6949a; 40 CFR Part 268, Subtitles C and D)	Establishes requirements for the identification, handling, and disposal of hazardous and nonhazardous waste.	No
Dangerous Waste Regulations (RCW 70.105; WAC 173-303)	Establishes regulations that are the state equivalent of RCRA requirements for determining whether a waste is a state dangerous waste. This regulation also provides requirements for the management of dangerous wastes.	No
Solid Waste Disposal Act (42 USC Sec. 325103259, 6901-6991; 40 CFR 257,258) Federal Land Disposal Requirements (40 CFR part 268)	Protects health and the environment and promotes conservation of valuable material and energy resources.	No
Minimum Functional Standards for Solid Waste Handling (WAC 173-304)	Sets minimum functional standards for the proper handling of all solid waste materials originating from residences, commercial, agricultural, and industrial operations as well as other sources.	No
Solid Waste Handling Standards (WAC 173-350 and WAC 173-351)	Establishes minimum standards for handling and disposal of solid waste. Solid waste includes wastes that are generated by site remediation, including contaminated soils, construction and demolition wastes, and garbage. Soils classified as "contained-in-waste" must be delivered to a solid waste landfill permitted under WAC 173-351 inside Washington State.	Yes; contained-in determination from Ecology required

Action-Specific Requirements ⁽²⁾ (cont.)		
Wastewater/Stormwater Discharge		
Water Pollution Control / State Waste Discharge Permit Program / NPDES Permit Program RCW 90.48; WAC 173-216, WAC 173-220	Washington State has been delegated authority to issue NPDES permits. CWA Section 301, 302, and 303 require states to adopt water quality standards and implement a NPDES permitting process. The Washington Water Pollution Control Law and regulations address this requirement.	No
NPDES (CWA Part 402)		No
King County Industrial Waste Program	The King County Industrial Waste Program monitors discharge of liquid waste to the wastewater (sanitary sewer) system. Any discharges during construction to the wastewater system must be approved by King County prior to discharge. The King County Industrial Waste Program monitors volume and water quality of liquid waste discharged to the system.	Yes; if project generates wastewater
Worker Safety		
Occupational Health and Safety Standards: Hazardous Waste Operations and Emergency Response/General Occupational Health Standards (Health and Safety 29 CFR 1901.120; and WAC 296-62)	The HAZWOPER standard regulates health and safety operations for hazardous waste sites. The health and safety regulations describe federal requirements for health and safety training for workers at hazardous waste sites.	No
Occupational Safety and Health Act (29 USC 653, 655, 657) Occupational Safety and Health Standards (29 CFR 1910)	Employee health and safety regulations for construction activities and general construction standards as well as regulations for fire protection, materials handling, hazardous materials, personal protective equipment, and general environmental controls. Hazardous waste site work requires employees to be trained prior to participation in site activities, medical monitoring, monitoring to protect employees from excessive exposure to hazardous substances, and decontamination of personnel and equipment.	No
Washington Industrial Safety and Health Act (RCW 49.17) Washington Safety Standards for Construction Work/General Occupational Health Standards (WAC 296-62, WAC 296-155)	Adopts the OSHA standards that govern the conditions of employment in all workplaces. The regulations encourage efforts to reduce safety and health hazards in the workplace and set standards for safe work practices for dangerous areas such as trenches, excavations, and hazardous waste sites.	No
Federal, State, and Local Air Quality Protection Programs State Implementation of Ambient Air Quality Standards NWAPA Ambient and Emission Standards Regional Standards for Fugitive Dust Emissions Toxic Air Pollutants	Regulations promulgated under the federal Clean Air Act (42 USC 7401) and the Washington State Clean Air Act (RCW 70.94) govern the release of airborne contaminants from point and non-point sources. Local air pollution control authorities such as the PSCAA have also set forth regulations for implementing these air quality requirements. These requirements may be applicable to the Site for the purposes of dust control should the selected remedial alternatives require excavation activities. WAC 173-340-750 establishes air cleanup standards, which applies to concentrations of hazardous substances in the air originating from a remedial action at the Site.	No
Miscellaneous		
Noise Control Act of 1974/Maximum Environmental Noise Levels (RCW 70.107, WAC 173-60)	Establishes maximum noise levels.	No
National Electrical Code (NFPA 70) and the Seattle Electric Code Supplement for Class 1 Division 2 Environments.	Establishes restrictions and guidelines for temporary and/or permanent electrical installations.	No
Chemical-Specific Requirements ⁽³⁾		
Groundwater Requirements		
Model Toxics Control Act (WAC 173-340)	Establishes Washington State administrative processes and standards to identify, investigate, and clean up facilities where hazardous substances are located.	No
Drinking Water Standards—State MCLs (WAC 246-290-310)	Establishes standards for contaminant levels in drinking water for water system purveyors.	No
National Recommended Water Quality Standards 40 CFR 131	These water quality standards define the water quality goals of the water body by designating the use or uses to be made of the water and by setting criteria necessary to protect the uses. States adopt water quality standards from 40 CFR 131 to protect public health or welfare, enhance the quality of water, and serve the purposes of the CWA. Washington State water quality standards (MCLs) are presented in WAC.	No
Washington State Maximum Contaminant Levels (WAC 246-290-310)		No
Soil Requirements		
MTCA (WAC 173-340)	Establishes Washington State administrative processes and standards to identify, investigate, and clean up facilities where hazardous substances are located.	No
Chemical-Specific Requirements ⁽³⁾ (cont.)		
Air Requirements		
MTCA (WAC 173-340-750)	Establishes screening and cleanup levels to evaluate groundwater and soil vapor to indoor air risk for occupants of buildings	No

Notes:

- 1 Location-specific requirements are applicable to the specific area where the Site is located and can restrict the performance of activities, including cleanup actions, solely because they occur in specific locations.
- 2 Action-specific requirements are applicable to certain types of activities that occur or technologies that are used during the implementation of cleanup actions.
- 3 Chemical-specific requirements are applicable to the types of contaminants present at the Site. The cleanup of contaminated media at the Site must meet the CULs developed under MTCA; these CULs are considered chemical-specific requirements.

Abbreviations:

BMC Bothell Municipal Code
CFR Code of Federal Regulations
CWA Clean Water Act
HAZWOPER Health and Safety for Hazardous Waste Operations and Emergency Management
MCL Maximum Contaminant Level
MTCA Model Toxics Control Act
NFPA National Fire Protection Association
NPDES National Pollutant Discharge Elimination System
NWAPA Northwest Air Pollution Authority
OSHA Occupational Safety and Health Act
PSCAA Puget Sound Clean Air Authority
RCRA Resource Conservation and Recovery Act
RCW Revised Code of Washington
SDWA Safe Drinking Water Act
SEPA State Environmental Policy Act
Site Ultra Custom Care Cleaners Site
UIC Underground Injection Control
USC United States Code
WAC Washington Administrative Code