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11	STATE OF WASHINGTON,	NO.
	DEPARTMENT OF ECOLOGY,	
12	Plaintiff,	CONSENT DECREE
13		
14	V.	
15	CITY OF RIDGEFIELD,	
16	Defendant.	
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### I. INTRODUCTION

1		
2	1.	The mutual objective of the State of Washington, Department of Ecology (Ecology
3	and The City	of Ridgefield (Defendant) under this Decree is to provide for remedial action at a
4	acility where	there has been a release or threatened release of hazardous substances. This
·5	Decree requir	es Defendant to implement the Cleanup Action Plan (Exhibit C) and Scope of Worl
6	  {Exhibit D).	
7 8	2.	Ecology has determined that these actions are necessary to protect human health
9	and the envir	onment.
10	3.	The Complaint in this action is being filed simultaneously with this Decree. Ar
11	Answer has n	ot been filed, and there has not been a trial on any issue of fact or law in this case
12	However, the	Parties wish to resolve the issues raised by Ecology's Complaint. In addition, the
13	Parties agree	that settlement of these matters without litigation is reasonable and in the public
14 15		that entry of this Decree is the most appropriate means of resolving these matters
16	4.	By signing this Decree, the Parties agree to its entry and agree to be bound by it
17		by signing this becree, the runtes agree to its entry and agree to be beautifully in
18	terms.	
19	5.	By entering into this Decree, the Parties do not intend to discharge non-settling
20	parties from	any liability they may have with respect to matters alleged in the Complaint. The
21	Parties retain	the right to seek reimbursement, in whole or in part, from any liable persons fo
22	sums expende	ed under this Decree.
23	6.	This Decree shall not be construed as proof of liability or responsibility for any
24	0.	This begins shall her be constitued as proof of hashing of respondibility for any

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releases of hazardous substances or cost for remedial action nor an admission of any facts;

	provided, nowever, that berendant shall not challenge the additiontly of the Attorney deficial and
1	Ecology to enforce this Decree.
2	7. The Court is fully advised of the reasons for entry of this Decree, and good cause
3	
4	having been shown:
5	Now, therefore, it is HEREBY ORDERED, ADJUDGED, AND DECREED as follows:
6	II. JURISDICTION
7 8	1. This Court has jurisdiction over the subject matter and over the Parties pursuant
9	to the Model Toxics Control Act (MTCA), RCW 70A.305.
10	2. Authority is conferred upon the Washington State Attorney General by
11	RCW 70A.305.040(4)(a) to agree to a settlement with any potentially liable person (PLP) if, after
12 13	public notice and any required hearing, Ecology finds the proposed settlement would lead to a
14	more expeditious cleanup of hazardous substances. RCW 70A.305.040(4)(b) requires that such a
15	settlement be entered as a consent decree issued by a court of competent jurisdiction.
16	3. Ecology has determined that a release or threatened release of hazardous
17 18	substances has occurred at the Site that is the subject of this Decree.
19	4. The actions to be taken pursuant to this Decree are necessary to protect public
20	health and the environment.
21	5. This Decree has been subject to public notice and comment.
22	6. Ecology finds that this Decree will lead to a more expeditious cleanup of hazardous
23	substances at the Site in compliance with the cleanup standards established under
ļ	RCW 70A.305.030(2)(e) and WAC 173-340.
26	

7. Defendant has agreed to undertake the actions specified in this Decree and onsents to the entry of this Decree under MTCA. 2 111. **PARTIES BOUND** 3 4 This Decree shall apply to and be binding upon the Parties to this Decree, their successors 5 nd assigns. The undersigned representative of each party hereby certifies that he or she is fully 6 uthorized to enter into this Decree and to execute and legally bind such party to comply with 7 his Decree. The City of Ridgefield voluntarily accepts status as a PLP for the Site. The City of 8 kidgefield waives any right to notice and the thirty (30) day comment period in WAC 173-340-10 \$00. Defendant agrees to undertake all actions required by the terms and conditions of this 11 Decree. No change in ownership or corporate status shall alter Defendant's responsibility under 12 his Decree. Defendant shall provide a copy of this Decree to all agents, contractors, and 13 ubcontractors retained to perform work required by this Decree, and shall ensure that all work 14 | undertaken by such agents, contractors, and subcontractors complies with this Decree. 16 IV. **DEFINITIONS** 17 Unless otherwise specified herein, all definitions in RCW 70A.305.020 and WAC 173-340 18 hall control the meanings of the terms in this Decree. 19 Site: The Site is referred to as Park Laundry, Facility Site ID No. 8100630, 20 21 Cleanup Site ID No. 4099. The Site constitutes a facility under RCW 70A.305.020(8). The 22 Site is defined by where a hazardous substance, other than a consumer product in 23 consumer use, has been deposited, stored, disposed of, or placed, or otherwise come to 24 be located.

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	B. <u>Property:</u> The Property is the parcel that hosted the Former Park Laundry
1	dry-cleaning business, Clark County parcel identification number 71040000.
2	C. <u>Source Area:</u> Includes the Property and two vacant parcels to the north of
4	the Property where elevated levels of contamination have been found in soil and
5	groundwater.
6	
7	D. <u>Consent Decree or Decree</u> : Refers to this Consent Decree and each of the
8	exhibits to this Decree. All exhibits are integral and enforceable parts of this Consent
9	Decree.
10	E. <u>Defendant</u> : Refers to the City of Ridgefield.
11	F. <u>Parties</u> : Refers to the State of Washington, Department of Ecology and
12	Defendant.
13	V. FINDINGS OF FACT
14	
15	Ecology makes the following findings of fact without any express or implied admissions of
	such facts by Defendant.
17	1. Based upon factors currently known to Ecology, the Site generally begins at 122
18 19	N. Main Avenue Ridgefield, Washington (45.816044, -122.745924), and extends to the north and
20	horthwest towards Lake River, as shown in the Site Location Diagram (Exhibit A). The
21	contaminated groundwater plume covers an estimated 22 acres. Soil is contaminated with
22	
23	Tetrachloroethene (PCE) on the Property, a parcel of property to the south (Property ID
24	67990000), and two parcels to the north (Property IDs 71030000 and 71042000) (see Exhibit B).
25	
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	2. Defendant City of Ridgefield owns the parcel south-adjacent to the Property
1	
2	known in Clark County records by property identifier number 67990000. The City has owned that
3	property since January 5, 1998.

- 3. Defendant City of Ridgefield intends to purchase the Property for remediation purposes. Between approximately 1965 and 1977, the Property was used by Park Laundry for laundry services. Contamination at the Site is related to dry cleaning operations that historically occurred at the Property. Volatile organic compounds (VOCs) were released to soil and groundwater. In Source Area soils, PCE was detected above the MTCA Method A soil cleanup level. In Source Area groundwater, PCE and Trichloroethene (TCE) have been detected above MTCA Method A groundwater cleanup levels. Soil gases also contain PCE, TCE and vinyl chloride above MTCA Method B screening levels. Therefore, contamination at the Site poses a risk to human health and the environment.
- 4. There have been several investigations into the Site, including a 2001 groundwater investigation on the 204-206 North Main Avenue property, a July 2006 groundwater investigation on the parcel directly north of the Property, an October 2006 Clark County Public Health soil and groundwater investigation directly north of the Property, and a 2008 U.S. EPA investigation of soil and groundwater on and around the Property. All of these investigations found VOC concentrations in soil and groundwater above Method A cleanup levels.
- 5. A September 2013 report documented the existence of VOCs in soil vapor above MTCA screening levels at the Site. The report assessed the potential for vapor intrusion to indoor air, indicating that there is no current vapor intrusion pathway for buildings on the Site, but acknowledged potential risk for future buildings constructed in the Source Area.

	6. In July 2019, under an agreed order with Ecology (No. DE 6829), the owner of the
	Property, a partnership called URIC, produced a Remedial Investigation and Feasibility Study
(	RI/FS) Report. The RI/FS documented the nature and extent of the soil and groundwater VOC
(	 contamination at the Site. The RI/FS report also documented the existence of VOCs in soil vapor
	above screening levels. Further, URIC submitted a preliminary draft Cleanup Action Plan.

- 7. The hazardous substances that have been released at the Site pose a continuing threat to the environment.
- 8. Ecology has assigned the Site an overall hazard assessment ranking of three out of five (one represents the highest level of risk and five the lowest) pursuant to MTCA.
- 9. As documented in the Cleanup Action Plan (CAP) (Exhibit C), Ecology has chosen a final cleanup action to be implemented at the Site.
- 10. The Department finds that a settlement with the City will lead to a more expeditious cleanup of hazardous substances because discussions with the current owner of the Property have stalled, and the current owner has represented through counsel that its resources are insufficient to complete the work. By contrast, the City has applied for funding from the State, and is prepared to provide the appropriate match to cover the cost of cleanup. Further, the City intends to condemn the Property for cleanup purposes. Through ownership, the City will have control over the Property, including access for the work, and the ability to install and protect remedial devices. While the acquisition or condemnation of the Property is not a requirement of this settlement, Ecology finds that the City's acquisition is one method of facilitating access to, and securing continued control over, the Property for cleanup purposes. Based on these unique circumstances, Ecology agrees to an effective date of this Decree as specified in Section XXVII.

#### VI. **WORK TO BE PERFORMED**

1   2	1. This Decree contains a program designed to protect human health and the
	environment from the known release, or threatened release, of hazardous substances or
4	contaminants at, on, or from the Site. All remedial action(s) conducted by Defendant at the Site
5	shall be done in accordance with WAC 173-340.

The Defendant shall implement the CAP (Exhibit C) in accordance with the Scope 2. of Work and Schedule attached to this Decree (Exhibit D). Among other remedial actions, the CAP equires Defendant to: dewater and capture water from the area planned for soil excavation, excavate VOC impacted soil on the Property and parcels to the north and south, treat source area groundwater in-situ through focused injections of bioremediation enhancement substrate, treat br dispose of captured water and excavated soil, monitor groundwater, and implement nstitutional controls. Defendant must produce cleanup action documentation meeting the requirements of WAC 173-340-400.

- 3. The following naming conventions shall be used for documents: Agency Review Draft (designation for the first time Ecology receives a document); Public Review Draft designates a document ready for public comment); Final (designation for a document after public comment and Ecology approval).
- All plans or other deliverables submitted by Defendant for Ecology's review and 4. approval under the CAP (Exhibit C) or Scope of Work and Schedule (Exhibit D) shall, upon Ecology's approval, become integral and enforceable parts of this Decree.
- If Defendant learns of a significant change in conditions at the Site, including but 5. not limited to a statistically significant increase in contaminant and/or chemical concentrations

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	in soil, groundwater, surface water, soil vapor, indoor air, and/or sediments, Defendant, within
2	seven (7) days of learning of the change in condition, shall notify Ecology in writing of said change
3	and provide Ecology with any reports or records (including laboratory analyses, sampling results)
4	relating to the change in conditions.
5	6. Pursuant to WAC 173-340-440(11), Defendant(s) shall maintain sufficient and
6 7	adequate financial assurance mechanisms to cover all costs associated with the operation and
8	maintenance of the remedial action at the Site, including institutional controls, compliance
9	monitoring, and corrective measures.
10	A. Within sixty (60) days of the effective date of this Decree, Defendant(s)
11	shall submit to Ecology for review and approval an estimate of the costs associated with
12· 13	the operation and maintenance of the remedial action at the Site that it will incur in
14	carrying out the terms of this Decree. Within sixty (60) days after Ecology approves the
15	aforementioned cost estimate, Defendant(s) shall provide proof of financial assurances
16	sufficient to cover those costs in a form acceptable to Ecology.
17	B. Defendant(s) shall adjust the financial assurance coverage and provide
18	Ecology's project coordinator with documentation of the updated financial assurance for:
19 20	i. Inflation, annually, within thirty (30) days of the anniversary date
21	of the entry of this Decree; or if applicable, the modified anniversary date
22	established in accordance with this section, or if applicable, ninety (90) days after
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24	the close of Defendant's fiscal year if the financial test or corporate guarantee is
25	used.

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- ii. Changes in cost estimates, within thirty (30) days of issuance of Ecology's approval of a modification or revision to the CAP that result in increases to the cost or expected duration of remedial actions. Any adjustments for inflation since the most recent preceding anniversary date shall be made concurrent with adjustments for changes in cost estimates. The issuance of Ecology's approval of a revised or modified CAP will revise the anniversary date established under this section to become the date of issuance of such revised or modified CAP.
- 7. As detailed in the CAP, institutional controls are required at the Site.
  Environmental (Restrictive) Covenants and public notice(s) will be used to implement the institutional controls.
  - A. In consultation with Defendant, Ecology will prepare the Environmental (Restrictive) Covenants consistent with WAC 173-340-440, RCW 64.70, and any policies or procedures specified by Ecology. The Environmental (Restrictive) Covenants shall restrict future activities and uses of the Site as agreed to by Ecology and Defendant.
  - B. After approval by Ecology, Defendant shall record the Environmental (Restrictive) Covenant for affected properties it owns with the office of the Clark County Auditor as detailed in the Schedule (Exhibit D). Defendant shall provide Ecology with the original recorded Environmental (Restrictive) Covenants within thirty (30) days of the recording date.
  - C. As detailed in the CAP, as part of the remedial action for the Site, institutional controls are required on properties not owned by Defendant. Defendant will ensure that the owner of each affected property records an Ecology-approved

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Environmental (Restrictive) Covenant as detailed in the Schedule (Exhibit D). Upon a showing that Defendant has made a good faith effort to secure an Environmental (Restrictive) Covenant for an affected property and failed to do so, Ecology may provide assistance to Defendant. Unless Ecology determines otherwise, affected properties include Property ID 67990000, 71030000, 71042000, and 71040000. Defendant shall provide Ecology with the original recorded Environmental (Restrictive) Covenant within thirty (30) days of the recording date.

- 8. Unless otherwise directed by Ecology, Defendant shall submit to Ecology written monthly Progress Reports that describe the actions taken during the previous month to implement the requirements of this Decree. All Progress Reports shall be submitted by the seventeenth (17th) day of the month in which they are due after the effective date of this Decree. Unless otherwise specified in writing by Ecology, Progress Reports and any other documents submitted pursuant to this Decree shall be sent by regular United States Postal Service mail to Ecology's project coordinator. The Progress Reports shall include the following:
  - A. A list of on-site activities that have taken place during the month.
  - B. Description of any sample results which deviate from the norm.
  - C. Detailed description of any deviations from required tasks not otherwise documented in project plans or amendment requests.
  - D. Description of all deviations from the Scope of Work and Schedule (Exhibit D) during the current month and any planned deviations in the upcoming month.
  - E. For any deviations in schedule, a plan for recovering lost time and maintaining compliance with the schedule.

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2	quarte	r (if not previously submitted to Ecology), together with a detailed description of
3	the un	derlying samples collected.
4		G. A list of planned activities for the upcoming month.
5	9.	Except in the case of an emergency, Defendant agrees not to perform any
6		,
7	remedial actio	ons at the Site outside the scope of this Decree without prior written approval of
8	Ecology. In the	e case of an emergency, Defendant must notify Ecology of the event and remedial
9	action(s) as so	oon as practical, but no later than twenty-four (24) hours after discovery of the
10	emergency.	
11		
12		VII. DESIGNATED PROJECT COORDINATORS
13	1.	The project coordinator for Ecology is:
14		Cam Penner-Ash, LG
		Department of Ecology
15	and the second s	300 Desmond Dr SE
16		Lacey, WA 98503
17	-Statement -	(360) 999-9590
'		cpen461@ecy.wa.gov
18		
9	2.	The project coordinator for Defendant is:
20		Steve Stuart
		City of Ridgefield
21		230 Pioneer Street
22		Ridgefield, WA 98642
23		(360) 887-3557
- 1		steve.stuart@ci.ridgefield.wa.us
24	3.	Each project coordinator shall be responsible for overseeing the implementation
.5	of this Dasras	Ecology's project coordinator will be Ecology's designated representative for the
6	טי נוווט טבנו פפי	Leology 3 project coordinator will be reology 3 designated representative for the

All raw data (including laboratory analyses) received during the previous

F.

	Site. To the maximum extent possible, communications between Ecology and Defendant and all		
1 2	documents, including reports, approvals, and other correspondence concerning the activities		
3	performed pursuant to the terms and conditions of this Decree shall be directed through the		
4	project coordinators. The project coordinators may designate, in writing, working level staff		
5	contacts for all or portions of the implementation of the work to be performed required by this		
6 7	Decree.		
8	4. Any party may change its respective project coordinator. Written notification shall		
9	be given to the other party at least ten (10) calendar days prior to the change.		
10	VIII. PERFORMANCE		
11 12	1. Except as otherwise provided for by RCW 18.43 and 18.220, all geologic and		
13	hydrogeologic work performed pursuant to this Decree shall be under the supervision and		
14	direction of a geologist or hydrogeologist licensed by the State of Washington or under the direct		
15	supervision of an engineer registered by the State of Washington.		
16	2. Except as otherwise provided for by RCW 18.43.130, all engineering work		
17 18	performed pursuant to this Decree shall be under the direct supervision of a professional		
19	engineer registered by the State of Washington.		
20	3. Except as otherwise provided for by RCW 18.43.130, all construction work		
21	performed pursuant to this Decree shall be under the direct supervision of a professional		
22 23	engineer registered by the State of Washington or a qualified technician under the direct		
24	supervision of a professional engineer registered by the State of Washington.		
25			
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1	4. As required by RCW 18.43 and 18.220, any documents submitted containing
2	geologic, hydrogeologic, or engineering work shall be under the seal of an appropriately licensed
3	professional.
4	5. Defendant shall notify Ecology in writing of the identity of any engineer(s) and
5	geologist(s), contractor(s) and subcontractor(s), and others to be used in carrying out the terms
6 7	of this Decree, in advance of their involvement at the Site.
8	IX. ACCESS
9	Ecology or any Ecology authorized representative shall have access to enter and
10	reely move about all property at the Site that Defendant either owns, controls, or has access
11	rights to at all reasonable times for the purposes of, inter alia: inspecting records, operation logs,
12	and contracts related to the work being performed pursuant to this Decree; reviewing
13	
14	Defendant's progress in carrying out the terms of this Decree; conducting such tests or collecting
15	such samples as Ecology may deem necessary; using a camera, sound recording, or other
16	documentary type equipment to record work done pursuant to this Decree; and verifying the
17	data submitted to Ecology by Defendant.
18	
19	2. Nothing in this Decree is intended by the Defendant to waive any right it may have
20	under applicable law to limit disclosure of documents protected by the attorney work-product
21	privilege and/or the attorney-client privilege. If Defendant withholds any requested records

Decree shall be considered privileged.

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based on an assertion of privilege, it shall provide Ecology with a privilege log specifying the

ecords withheld and the applicable privilege. No Site-related data collected pursuant to this

- With respect to the implementation of this Decree, Defendant shall make the esults of all sampling, laboratory reports, and/or test results generated by it or on its behalf available to Ecology by submitting data as detailed in this section. Pursuant to WAC 173-340-\$40(5), all sampling data shall be submitted to Ecology in both printed and electronic formats in accordance with Section VI(8) (Progress Reports), Ecology's Toxics Cleanup Program Policy 840 Data Submittal Requirements), and/or any subsequent procedures specified by Ecology for data submittal.
- If requested by Ecology, Defendant shall allow Ecology and/or its authorized 2. representative to take split or duplicate samples of any samples collected by Defendant pursuant to the implementation of this Decree. Defendant shall notify Ecology seven (7) days in advance of any sample collection or work activity at the Site. Ecology shall, upon request, allow Defendant and/or its authorized representative to take split or duplicate samples of any samples collected by Ecology pursuant to the implementation of this Decree, provided that doing so does not

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_	interfere with Ecology's sampling. Without limitation on Ecology's rights under Section IX
2	(Access), Ecology shall notify Defendant prior to any sample collection activity unless an
3	emergency prevents such notice.
4	3. In accordance with WAC 173-340-830(2)(a), all hazardous substance analyses shall
5	be conducted by a laboratory accredited under WAC 173-50 for the specific analyses to be
6	conducted, unless otherwise approved by Ecology.
7	
. 8	XI. RETENTION OF RECORDS
9	1. During the pendency of this Decree, and for ten (10) years from the date this
10	Decree is no longer in effect as provided in Section XXV (Duration of Decree), Defendant shall
11	preserve all records, reports, documents, and underlying data in its possession relevant to the
12	implementation of this Decree and shall insert a similar record retention requirement into all
13 14	contracts with project contractors and subcontractors. Upon request of Ecology, Defendant shall
15	make all records available to Ecology and allow access for review within a reasonable time.
16	
17	2. Nothing in this Decree is intended by Defendant to waive any right it may have
	under applicable law to limit disclosure of documents protected by the attorney work-product
19	privilege and/or the attorney-client privilege. If Defendant withholds any requested records
20	based on an assertion of privilege, Defendant shall provide Ecology with a privilege log specifying
21	the records withheld and the applicable privilege. No Site-related data collected pursuant to this
22	Decree shall be considered privileged.
23	XII. TRANSFER OF INTEREST IN PROPERTY
24	
25	1. No voluntary conveyance or relinquishment of title, easement, leasehold, or other
26	nterest in any portion of the Site shall be consummated by Defendant without provision for

	continued operation and maintenance of any containment system, treatment system, and/or
1	
_	monitoring system installed or implemented pursuant to this Decree.
2	
3	2. Prior to Defendant's transfer of any interest in all or any portion of the Site, and
J	
4	during the effective period of this Decree, Defendant shall provide a copy of this Decree to any
•	paring the ended of this beside, believed the any

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

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### XIII. RESOLUTION OF DISPUTES

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

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written decision or an itemized billing statement), Defendant has fourteen (14) calendar days within which to notify Ecology's project coordinator in writing of its dispute (Informal

Upon the triggering event (receipt of Ecology's project coordinator's

The Parties' project coordinators shall then confer in an effort to resolve

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Dispute Notice).

A.

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the dispute informally. The parties shall informally confer for up to fourteen (14) calendar

days from receipt of the Informal Dispute Notice. If the project coordinators cannot

resolve the dispute within those 14 calendar days, then within seven (7) calendar days

Ecology's project coordinator shall issue a written decision (Informal Dispute Decision)

stating: the nature of the dispute; the Defendant's position with regard to the dispute;

Ecology's position with regard to the dispute; and the extent of resolution reached by informal discussion.

- C. Defendant may then request regional management review of the dispute. This request (Formal Dispute Notice) must be submitted in writing to the Southwest Region Toxics Cleanup Section Manager within seven (7) calendar days of receipt of Ecology's Informal Dispute Decision. The Formal Dispute Notice shall include a written statement of dispute setting forth: the nature of the dispute; the disputing Party's position with respect to the dispute; and the information relied upon to support its position.
- D. The Section Manager shall conduct a review of the dispute and shall issue a written decision regarding the dispute (Decision on Dispute) within thirty (30) calendar days of receipt of the Formal Dispute Notice.
- E. If Defendant finds Ecology's Regional Section Manager's decision unacceptable, Defendant may then request final management review of the decision. This request (Final Review Request) shall be submitted in writing to the Toxics Cleanup Program Manager within seven (7) calendar days of Defendant's receipt of the Decision on Dispute. The Final Review Request shall include a written statement of dispute setting forth: the nature of the dispute; the disputing Party's position with respect to the dispute; and the information relied upon to support its position.
- F. Ecology's Toxics Cleanup Program Manager shall conduct a review of the dispute and shall issue a written decision regarding the dispute (Final Decision on Dispute)

	within thirty (30) calendar days of receipt of the Final Review Request. The Toxics Cleanup	
1	Program Manager's decision shall be Ecology's final decision on the disputed matter.	
3	2. If Ecology's Final Decision on Dispute is unacceptable to Defendant, Defendant has	
4	the right to submit the dispute to the Court for resolution. The Parties agree that one judge	
5	should retain jurisdiction over this case and shall, as necessary, resolve any dispute arising under	
6 7	this Decree. Under RCW 70A.305.070, Ecology's investigative and remedial decisions shall be	
8	upheld unless they are arbitrary and capricious.	
9	3. The Parties agree to only utilize the dispute resolution process in good faith and	
10	agree to expedite, to the extent possible, the dispute resolution process whenever it is used.	
11	Where either party utilizes the dispute resolution process in bad faith or for purposes of delay,	
12 13	the other party may seek sanctions.	
14	4. Implementation of these dispute resolution procedures shall not provide a basis	
15	for delay of any activities required in this Decree, unless Ecology agrees in writing to a schedule	
16	extension or the Court so orders.	
17	5. In case of a dispute, failure to either proceed with the work required by this	
18 19	Decree or timely invoke dispute resolution may result in Ecology's determination that insufficient	
	progress is being made in preparation of a deliverable, and may result in Ecology undertaking the	
21	work under Section XXII (Implementation of Remedial Action).	
22	XIV. AMENDMENT OF DECREE	
23	The Parties may agree to minor changes to the work to be performed without	
24   25	formally amending this Decree. Minor changes will be documented in writing by the parties.	

	<ol><li>Substantial changes to the work to be performed shall require formal amendment</li></ol>	
1 2	of this Decree. This Decree may only be formally amended by a written stipulation among the	
3	Parties that is entered by the Court, or by order of the Court. Ecology will provide its written	
4	consent to a formal amendment only after public notice and opportunity to comment on the	
5	formal amendment. Such amendment shall become effective upon entry by the Court.	
6 7	Agreement to amend the Decree shall not be unreasonably withheld by any party.	
8	3. When requesting a change to the Decree, Defendant shall submit a written	
9	request to Ecology for approval. Ecology shall indicate its approval or disapproval in writing and	
10	in a timely manner after the written request is received. If Ecology determines that the change is	
11 12	substantial, then the Decree must be formally amended. Reasons for the disapproval of a	
13	proposed change to this Decree shall be stated in writing. If Ecology does not agree to the	
14	requested change, the disagreement may be addressed through the dispute resolution	
15	procedures described in Section XIII (Resolution of Disputes).	
16	XV. EXTENSION OF SCHEDULE	
17 18	<ol> <li>Defendant's request for an extension of schedule shall be granted only when a</li> </ol>	
19	request for an extension is submitted in a timely fashion, generally at least thirty (30) days prior	
20	to expiration of the deadline for which the extension is requested, and good cause exists for	
21	granting the extension. All extensions shall be requested in writing. The request shall specify:	
22   23	A. The deadline that is sought to be extended.	
24	B. The length of the extension sought.	
25	C. The reason(s) for the extension.	

	<ul> <li>Any related deadline or schedule that would be affected if the extension</li> </ul>
1	Ware granted
2	were granted.
3	2. The burden shall be on Defendant to demonstrate to the satisfaction of Ecology
4	that the request for such extension has been submitted in a timely fashion and that good cause
5	exists for granting the extension. Good cause may include, but may not be limited to:
6	A. Circumstances beyond the reasonable control and despite the due
. 7	The chief state of the control and despite the case
8	diligence of Defendant including delays caused by unrelated third parties or Ecology, such
9	as (but not limited to) delays by Ecology in reviewing, approving, or modifying documents
10	submitted by Defendant.
11	B. Acts of God, including fire, flood, blizzard, extreme temperatures, storm,
12	
13	or other unavoidable casualty.
14	C. Endangerment as described in Section XVI (Endangerment).
15	3. However, neither increased costs of performance of the terms of this Decree nor
16	changed economic circumstances shall be considered circumstances beyond the reasonable
17	control of Defendant.
18	
19	4. Ecology shall act upon any Defendant's written request for extension in a timely
20	fashion. Ecology shall give Defendant written notification of any extensions granted pursuant to
21	this Decree. A requested extension shall not be effective until approved by Ecology or, if required,
22	by the Court. Unless the extension is a substantial change, it shall not be necessary to amend this
23	
24	Decree pursuant to Section XIV (Amendment of Decree) when a schedule extension is granted.
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1 1	5.	At Defendant's request an extension shall only be granted for such period of time
2	as Ecology d	etermines is reasonable under the circumstances. Ecology may grant schedule
3	extensions ex	ceeding ninety (90) days only as a result of one of the following:
4	*	A. Delays in the issuance of a necessary permit which was applied for in a
5	timely	manner.
6 7		B. Other circumstances deemed exceptional or extraordinary by Ecology.
8		C. Endangerment as described in Section XVI (Endangerment).
9		XVI. ENDANGERMENT
10	1.	In the event Ecology determines that any activity being performed at the Site
11	under this De	ecree is creating or has the potential to create a danger to human health or the
12	environment,	Ecology may direct Defendant to cease such activities for such period of time as it
13 14	deems necess	sary to abate the danger. Defendant shall immediately comply with such direction.
15	2.	In the event Defendant determines that any activity being performed at the Site
16	under this De	ecree is creating or has the potential to create a danger to human health or the
	environment,	Defendant may cease such activities. Defendant shall notify Ecology's project
18	coordinator a	s soon as possible, but no later than twenty-four (24) hours after making such
19		
	determination	n or ceasing such activities. Upon Ecology's direction, Defendant shall provide
21	cology with	documentation of the basis for the determination or cessation of such activities. If
1	Ecology disagrees with Defendant's cessation of activities, it may direct Defendant to resume	
23	such activities.	
25	3.	If Ecology concurs with or orders a work stoppage pursuant to this section,
	Defendant's c	bligations with respect to the ceased activities shall be suspended until Ecology

	determines the danger is abated, and the time for performance of such activities, as well as the
1	time for any other work dependent upon such activities, shall be extended, in accordance with
3	Section XV (Extension of Schedule), for such period of time as Ecology determines is reasonable
4	under the circumstances.
5	4. Nothing in this Decree shall limit the authority of Ecology, its employees, agents,
6	or contractors to take or require appropriate action in the event of an emergency.
8	XVII. COVENANT NOT TO SUE
9	1. Covenant Not to Sue: In consideration of Defendant's compliance with the terms
10	and conditions of this Decree, Ecology covenants not to institute legal or administrative actions
11	against Defendant regarding the release or threatened release of hazardous substances at the
12 13	Site, as described in Section V (Findings of Fact). This Covenant Not to Sue does not cover any
14	other hazardous substance(s) or area. Ecology retains all of its authority relative to any hazardous
15	substance(s) or area not covered by this Decree.
16	This Covenant Not to Sue shall have no applicability whatsoever to:
17	A. Criminal liability.
18 19	B. Liability for damages to natural resources.
20	C. Any Ecology action, including cost recovery, against PLPs not a party to this
21	Decree.
22	2. Pursuant to RCW 70A.305.040(4)(c), the Court shall amend this Covenant Not to
23	Sue if factors not known at the time of entry of this Decree are discovered and present a
24 25	previously unknown threat to human health or the environment.
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1	3. Reopeners: Ecology specifically reserves the right to institute legal or
2	administrative action against Defendant to require it to perform additional remedial actions at
3	the Site and to pursue appropriate cost recovery, pursuant to RCW 70A.305.050, under any of
4	the following circumstances:
5	A. Upon Defendant's failure to meet the requirements of this Decree.
6 7	B. Failure of the remedial action to meet the cleanup standards identified in
8	the CAP (Exhibit C).
9	C. Upon Ecology's determination that remedial action beyond the terms of
10	this Decree is necessary to abate an imminent and substantial endangerment to human
11	health or the environment.
12 13	D. Upon the availability of information previously unknown to Ecology
14	regarding Site factors including the nature, quantity, migration, pathway, or mobility of
15	hazardous substances, and Ecology's determination, in light of this information, that
16	further remedial action is necessary at the Site to protect human health or the
17	environment.
l8    9	E. Upon Ecology's determination that additional remedial actions are
20	necessary to achieve cleanup standards within the reasonable restoration time frame set
21	forth in the CAP.
22	4. Except in the case of an emergency, prior to instituting legal or administrative
1	action against Defendant pursuant to this section, Ecology shall provide Defendant with fifteen
.5	(15) calendar days' notice of such action.

#### XVIII. CONTRIBUTION PROTECTION

With regard to claims for contribution against Defendant, the Parties agree that

Defendant is entitled to protection against claims for contribution for matters addressed in this

Decree as provided by RCW 70A.305.040(4)(d).

#### XIX. INDEMNIFICATION

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

#### XX. COMPLIANCE WITH APPLICABLE LAWS

1. Applicable Law. All actions carried out by Defendant pursuant to this Decree shall be done in accordance with all applicable federal, state, and local requirements, including requirements to obtain necessary permits, except as provided in RCW 70A.305.090. The permits or specific federal, state, or local requirements that the agency has determined are applicable and that are known at the time of the execution of this Decree have been identified in the CAP (Exhibit C). Defendant has a continuing obligation to identify additional applicable federal, state, and local requirements which apply to actions carried out pursuant to this Decree, and to comply

with those requirements. As additional federal, state, and local requirements are identified by Ecology or the Defendant, Ecology will document in writing if they are applicable to actions carried out pursuant to this Decree, and the Defendant must implement those requirements.

- 2. Relevant and Appropriate Requirements. All actions carried out by Defendant pursuant to this Decree shall be done in accordance with relevant and appropriate requirements identified by Ecology. The relevant and appropriate requirements that Ecology has determined apply have been identified in Exhibit C. If additional relevant and appropriate requirements are identified by Ecology or the Defendant, Ecology will document in writing if they are applicable to actions carried out pursuant to this Decree and the Defendant must implement those requirements.
- 3. Pursuant to RCW 70A.305.090(1), Defendant may be exempt from the procedural requirements of RCW 70A.15, 70A.205, 70A.300, 77.55, 90.48, and 90.58 and of any laws requiring or authorizing local government permits or approvals. However, Defendant shall comply with the substantive requirements of such permits or approvals. For permits and approvals covered under RCW 70A.305.090(1) that have been issued by local government, the Parties agree that Ecology has the non-exclusive ability under this Decree to enforce those local government permits and/or approvals. At this time, no state or local permits or approvals have been identified as being applicable but procedurally exempt under this section.
- 4. Defendant has a continuing obligation to determine whether additional permits or approvals addressed in RCW 70A.305.090(1) would otherwise be required for the remedial action under this Decree. In the event either Ecology or Defendant determines that additional permits or approvals addressed in RCW 70A.305.090(1) would otherwise be required for the

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remedial action under this Decree, it shall promptly notify the other party of its determination.
Ecology shall determine whether Ecology or Defendant shall be responsible to contact the
appropriate state and/or local agencies. If Ecology so requires, Defendant shall promptly consult
with the appropriate state and/or local agencies and provide Ecology with written
documentation from those agencies of the substantive requirements those agencies believe are
applicable to the remedial action. Ecology shall make the final determination on the additional
substantive requirements that must be met by Defendant and on how Defendant must meet
those requirements. Ecology shall inform Defendant in writing of these requirements. Once
established by Ecology, the additional requirements shall be enforceable requirements of this
Decree. Defendant shall not begin or continue the remedial action potentially subject to the
additional requirements until Ecology makes its final determination.

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

#### XXI. REMEDIAL ACTION COSTS

1. Defendant shall pay to Ecology costs incurred by Ecology pursuant to this Decree and consistent with WAC 173-340-550(2). These costs shall include work performed by Ecology or its contractors for, or on, the Site under RCW 70A.305, including remedial actions and Decree preparation, negotiation, oversight, and administration. These costs shall include work

	performed both prior to and subsequent to the entry of this Decree. Ecology's costs shall include
1 2	costs of direct activities and support costs of direct activities as defined in WAC 173-340-550(2).
3	 
4	from Ecology an itemized statement of costs that includes a summary of costs incurred, an
5	dentification of involved staff, and the amount of time spent by involved staff members on the
6 7	project. A general statement of work performed will be provided upon request. Itemized
8	statements shall be prepared quarterly. Pursuant to WAC 173-340-550(4), failure to pay
9	   Ecology's costs within ninety (90) days of receipt of the itemized statement of costs will result in
10	interest charges at the rate of twelve percent (12%) per annum, compounded monthly.
11	2. In addition to other available relief, pursuant to RCW 19.16.500, Ecology may
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utilize a collection agency and/or, pursuant to RCW 70A.305.060, file a lien against real property subject to the remedial actions to recover unreimbursed remedial action costs.

#### XXII. IMPLEMENTATION OF REMEDIAL ACTION

- 1. If Ecology determines that the Defendant has failed to make sufficient progress or failed to implement the remedial action, in whole or in part, Ecology may, after notice to Defendant, perform any or all portions of the remedial action or at Ecology's discretion allow the Defendant opportunity to correct. In an emergency, Ecology is not required to provide notice to Defendant, or an opportunity for dispute resolution. The Defendant shall reimburse Ecology for the costs of doing such work in accordance with Section XXI (Remedial Action Costs).
- 2. Except where necessary to abate an emergency situation or where required by law, the Defendant shall not perform any remedial actions at the Site outside those remedial actions required by this Decree to address the contamination that is the subject of this Decree,

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unless Ecology concurs, in writing, with such additional remedial actions pursuant to Section XIV 1 Amendment of Decree). In the event of an emergency, or where actions are taken as required 2 y law, Defendant must notify Ecology in writing of the event and remedial action(s) planned or aken as soon as practical but no later than within twenty-four (24) hours of the discovery of the 5 vent. 6 XXIII. PERIODIC REVIEW 7 So long as remedial action continues at the Site, the Parties agree to review the progress 8 of remedial action at the Site, and to review the data accumulated as a result of monitoring the 10 \$ite as often as is necessary and appropriate under the circumstances. Unless otherwise agreed 11 o by Ecology, at least every five (5) years after the initiation of cleanup action at the Site the 12 Parties shall confer regarding the status of the Site and the need, if any, for further remedial 13 action at the Site. At least ninety (90) days prior to each periodic review, Defendant shall submit 14 a report to Ecology that documents whether human health and the environment are being 15 16 protected based on the factors set forth in WAC 173-340-420(4). Under Section XVII (Covenant 17 Not to Sue), Ecology reserves the right to require further remedial action at the Site under

## XXIV. PUBLIC PARTICIPATION

appropriate circumstances. This provision shall remain in effect for the duration of this Decree.

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

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

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

- B. Notify Ecology's project coordinator prior to the preparation of all press releases and fact sheets, and before major¹ meetings related to remedial action work to be performed at the Site with the interested public and/or local governments. Likewise, Ecology shall notify Defendant prior to the issuance of all press releases and fact sheets related to remedial action work to be performed at the Site, and before major meetings related to remedial action work to be performed at the Site with the interested public and/or local governments. For all press releases, fact sheets, meetings, and other outreach efforts by Defendant that do not receive prior Ecology approval, Defendant shall clearly indicate to its audience that the press release, fact sheet, meeting, or other outreach effort was not sponsored or endorsed by Ecology.
- C. When requested by Ecology, participate in public presentations on the progress of the remedial action at the Site. Participation may be through attendance at public meetings to assist in answering questions, or as a presenter.
- D. When requested by Ecology, arrange and/or contribute to information repositories at the following locations:
  - i. Ridgefield Public Library210 N. Main Avenue

Such as: public hearings/ meetings, walking tours, City Council meetings where the Site is on the agenda, and neetings of governing boards of other municipalities that City staff will attend where the Site is on the agenda.

#### Ridgefield, WA 98642

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Washington State Department of Ecology

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Southwest Regional Office 300 Desmond Drive Lacey, WA 98503

At a minimum, copies of all public notices, fact sheets, and documents relating to public comment periods shall be promptly placed in these repositories. A copy of all documents related to this \$ite shall be maintained in the repository at Ecology's Southwest Regional Office in Lacey, Washington.

#### XXV. DURATION OF DECREE

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

#### XXVI. CLAIMS AGAINST THE STATE

Defendant hereby agrees that it will not seek to recover any costs accrued in mplementing the remedial action required by this Decree from the State of Washington or any of its agencies; and further, that Defendant will make no claim against any MTCA account for any costs incurred in implementing this Decree. Except as provided above, however, Defendant expressly reserves its right to seek to recover any costs incurred in implementing this Decree

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	from any other PLP. This section does not limit or address funding that may be provided under
1 2	WAC 173-322A.
3	XXVII. EFFECTIVE DATE
4	This Decree is effective only upon the date (Effective Date) that title to the Property vests
5	in Defendant, City of Ridgefield, following entry of this Decree by the Court. If the City of
6	Ridgefield does not acquire title to the Property within six months of entry, this Decree shall be
7	mull and void as between the City and Ecology and the parties shall file a Stipulation and Agreed
	Order of Dismissal without prejudice or an award of costs to either party.
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# 1 | 2 XXVIII. WITHDRAWAL OF CONSENT 3 If the Court withholds or withdraws its consent to this Decree, it shall be null and void at 4 the option of any party and the accompanying Complaint shall be dismissed without costs and 5 without prejudice. In such an event, no party shall be bound by the requirements of this Decree. 6 7 ROBERT W. FERGUSON STATE OF WASHINGTON 8 DEPARTMENT OF ECOLOGY Attorney General 9 10 Barry Rogowski Kara Tebeau WSBA No. 49923 11 Program Manager **Assistant Attorney General** 360-586-3633 Toxics Cleanup Program 12 360-485-3738 13 14 CITY OF RIDGEFIELD 15 16 Steve Stuart 17 City Manager 360-887-3557 18 19 ENTERED this 20 day of October 20 21 22 Clark County Superior Court 23 24

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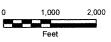
Property Address: Pioneer St & Main St, Ridgefield, Clark County, Washington Source: US Geological Survey (1990) 7.5-minute topographic quadrangle: Ridgefield DLC 38/Section 24, Township 4 North, Range 1 West

# **EXHIBIT A**Site Location Diagram

Former Park Laundry City of Ridgefield, Washington



This product is for informational purposes and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.





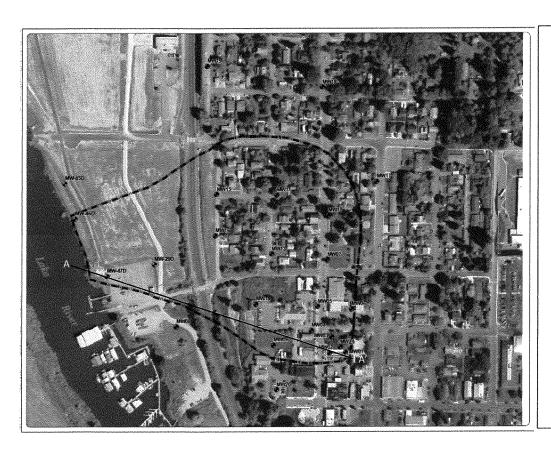


EXHIBIT B Approximate Site Boundary, Property, and Source Area

Former Park Laundry City of Ridgefield, Washington

#### Legend

- Park Laundry Montoning View
- Port of Ridgefield Monitoring Well
- Property Boundary
  - Estimated Site Boundary
- Source Area Boundary

----- Cross Sector





#### **EXHIBIT C**

#### Former Park Laundry

### **Final Cleanup Action Plan**



Former Park Laundry 122 N Main Avenue Ridgefield, Washington 98642

Facility Site ID: 8100630 Cleanup Site ID: 4099

### Final Cleanup Action Plan

#### Issued by

Washington State Department of Ecology Toxics Cleanup Program Southwest Regional Office 300 Desmond Dr SE Lacey, Washington 98503

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#### **ACRONYMS AND ABBREVIATIONS**

1,1-DCE 1.1-dichloroethene

ARARs Applicable or Relevant and Appropriate Requirements

below ground surface bgs CAP Cleanup Action Plan CD **Consent Decree** 

cis-1,2-DCE cis-1,2-dichloroethene COC Contaminant of Concern

CUL Cleanup Level

EC **Environmental Covenant** 

Washington State Department of Ecology Ecology

**EDR Engineering Design Report** 

Institutional Controls **ICs LWBZ** lower water-bearing zone **MCLs** Maximum Contaminant Levels MFA Maul Foster & Alongi, Inc. **MTCA** Model Toxics Control Act

PCE tetrachloroethene

PLP potentially liable persons **POCs** points of compliance Port Port of Ridgefield

**PQLs Practical Quantitation Levels** 

Former Park Laundry located at 122 North Main Avenue **Property** 

in Ridgefield, Washington Pacific Wood Treating facility **OAPP** Quality Assurance Project Plan

**RCRA** Resource Conservation and Recovery Act

**RCW Revised Code of Washington** 

Remediation Level REL

**PWT** 

RI/FS Remedial Investigation/Feasibility Study

SAP Sampling and Analysis Plan **SEPA** State Environmental Policy Act

The extent of Property-related contamination, which corresponds to the Site

extent of groundwater contamination.

The Property and the two vacant lots directly north of the Property and a Source Area

portion of the parcel to the south

trans-1,2-DCE trans-1,2-dichloroethene micrograms per kilogram µg/kg µg/L micrograms per liter

UIC underground injection control URIC Union Ridge Investment Company

**UWBZ** upper water-bearing zone

VC vinyl chloride

**VOCs** volatile organic compounds Washington Administrative Code WAC

#### **EXECUTIVE SUMMARY**

This document presents the cleanup action plan (CAP) for the Former Park Laundry site in Ridgefield, Washington. This CAP is intended to meet the requirements of the Model Toxics Control Act administered by the Washington State Department of Ecology (Ecology) under chapter 173-340 of the Washington Administrative Code (WAC). This CAP describes Ecology's required cleanup action for the Site and sets forth the requirements that the cleanup must meet.

Soil, vapor, and groundwater impacts related to tetrachloroethene (PCE) and its degradation products resulting from former dry cleaner operations have been confirmed. The groundwater plume covers an estimated 22 acres. The plume generally follows the topography of the area, extending north and west from the Property, and is bounded on the west by Lake River. This CAP addresses the potential human health and environmental concerns associated with these impacts, based on Ecology's selected remedy (Alternative 4) from the Remedial Investigation/Feasibility Study (RI/FS) analysis conducted by Maul Foster & Alongi, Inc. (MFA, 2019).

The selected remedy consists of soil excavation down to 15 feet below ground surface (bgs) in the groundwater Source Area (including the former Park Laundry property, a City of Ridgefield parcel, and two privately owned [Hinrich] parcels), focused groundwater remediation, institutional controls, and groundwater monitoring. If contamination remains in the Source Area and it is redeveloped, a vapor barrier should be included, as part of building construction, or additional data should be collected to show that there is no threat to indoor air.

#### 1.0 INTRODUCTION

#### 1.1 Purpose

This document is the CAP for the Former Park Laundry Site. Park Laundry formerly operated on a small parcel of land located at 122 North Main Avenue in Ridgefield, Washington (the Property). The location of the Property is shown in Figure 1-1. A CAP is required as part of the site cleanup process under chapter 173-340 WAC, MTCA Cleanup Regulations. The purpose of this CAP is to identify the proposed cleanup action for the Site and to provide an explanatory document for public review. More specifically, this CAP:

- Describes the Site.
- Summarizes current Site conditions.
- Describes the selected cleanup action for the Site and the rationale for selecting this alternative.
- Identifies Site-specific cleanup levels (CULs), remediation levels (RELs), and points of compliance (POCs) for each hazardous substance and medium of concern for the proposed cleanup action.
- Identifies applicable state and federal laws for the proposed cleanup action.
- Identifies residual contamination on the Site, as well as restrictions on future uses and access to areas where Site contamination may remain to ensure continued protection of human health and the environment.
- Describes installation of additional monitoring wells to investigate contamination in deep aquifer beneath the site.
- Discusses compliance monitoring requirements.
- Presents the schedule for implementing the CAP.

Ecology has made a preliminary determination that a cleanup conducted in conformance with this CAP will comply with the requirements for selection of a remedy under WAC 173-340-360.

#### 1.2 Previous Studies

This CAP is based on the results of the RI/FS (MFA, 2019), which incorporated the remedial action work plan (MFA, 2010a) and subsequent work plans (MFA, 2010b, 2012, 2014), all of which were approved by Ecology in advance of the work being performed.

Results of previous investigations indicate that volatile organic compounds (VOCs) are present on the Property and on neighboring properties. The Site is defined by the extent of contamination in all media (see Figure 1-2). Historically, the Property was used by Park Laundry, which performed dry cleaning operations that likely resulted in the release of tetrachloroethene (PCE).

#### 2.0 SITE DESCRIPTION

#### 2.1 Property and Site Description

The Property is zoned as Downtown Mixed Use and is approximately 25 feet wide (north-south) and 100 feet long (east-west). The Property is located near commercial businesses or publicly owned entities (e.g., police and fire station). Beyond these, the land use is primarily residential.

The contaminated groundwater plume covers an estimated 22 acres. The plume generally follows the topography of the area—extending north and west from the Property, and is bounded on the west by Lake River. Soil impacts and soil vapor are within the extent of the groundwater impact. Figure 1-2 depicts the estimated Site boundary as defined by the RI.

For the purposes of this CAP, "the Source Area" is defined as the area of the Site with the highest concentrations in soil, groundwater, and soil vapor; this includes the Property and the adjoining parcels to the north and south of the Property. Immediately to the north are two vacant and privately owned (Hinrich) parcels. These parcels and the Property are presently used as a parking lot. To the south, contamination extends into the northern portion of a parcel which is owned by the City of Ridgefield and is used as a parking lot.

Groundwater contamination sourced from the Park Laundry Site has entered the Port of Ridgefield's (Port's) property, which is subject to a separate Consent Decree (CD) (Ecology, 2013), and CAP for contamination from the former Pacific Wood Treating (PWT) facility. There are two separate plumes of VOC contaminated groundwater at the Port property. The northern plume is sourced from PWT operations and generally located north of Division Street on the Port property. The southern plume is sourced from the Park Property and generally located south of Division Street on the Port property.

With the groundwater flow from the Park Property towards Lake River, CULs protective of surface water in monitoring wells on the bank of Lake River (MW-29D, MW-47D and MW-46D) have been established.

#### 2.2 Site Topography, Geology, and Hydrogeology

The Site topography consists of upper and lower terrace areas trending north and south. A west-facing slope separates them. The Source Area is located on the upper terrace where City of Ridgefield commercial properties reside with some residential properties. The slope starts west of North 1st Avenue dropping from about 80 feet to 20 feet in elevation over a horizontal distance of about 250 feet before arriving at the lower terrace. The slope is covered with residential properties. The lower terrace is Port of Ridgefield property that is bare undeveloped land and the location of the former PWT operations area. Lake River borders the west side of the lower terrace.

The Site is underlain by Holocene to Tertiary age alluvial deposits (see Figures 1-2 and 2-1). Two water-bearing zones beneath the site are separated by an aquitard. The upper water-bearing zone (UWBZ) overlies the aquitard. It consists of Pleistocene age silty sand and sand that make up the

surface deposits of the upper terrace and most of the slope between terraces. The silty sand and sand grades into a sandy gravel unit beneath the western portion of the slope and the lower terrace. Holocene age deposits of silt, sand and silty sand overlay the sandy gravel to make up the surface deposits of the lower terrace.

The aquitard beneath the UWBZ consists of clay and silty gravel. The clay portion is about 40 feet thick, is in contact with, and overlies the silty gravel portion. The clay portion pinches out to the west only being found beneath the upper terrace and part of the slope between the terraces. The clay portion is considered Pleistocene in age while the underlying silty gravel is thought to be Tertiary age. The silty gravel unit extends beneath the entire site.

Beneath the clay and silty gravel aquitard is the Tertiary age lower water-bearing zone (LWBZ). It consists of some sand and sandy gravel extending beneath the entire Site.

Groundwater flow in the upper terrace is to the north, northwest and turns to the west to follow topographic slope to the lower terrace and Lake River. Groundwater elevation data from Site monitoring wells show that groundwater flow is consistent season to season. The clay aquitard is unsaturated and shallow groundwater is perched above that clay. The perched groundwater is considered non-potable due to insufficient flow and shallow depth (15 to 19 feet bgs). The shallow depth would not allow for meeting surface seal minimum well construction standards. Beyond where the clay pinches out, groundwater transitions from non-potable to potable. Groundwater flow direction beneath the Port property is consistently east to west in the UWBZ. There are no monitoring wells in the LWBZ unit so groundwater flow direction is not known there.

The groundwater contaminant extent in the Source Area and upper terrace is defined, being contained above the clay aquitard. Downslope to the west, contamination has entered the sandy gravel above the silty gravel aquitard. Because the vertical extent of contamination through the silty gravel aquitard is unknown, Ecology is requiring at least three additional monitoring wells in the underlying sandy gravel unit of the LWBZ.

Conservative groundwater modeling conducted for the Port of Ridgefield by MFA indicates groundwater flow in the UWBZ is towards Lake River. Reportedly, PCE concentrations in groundwater would attenuate to levels below the most stringent regulatory criteria (surface-water CULs) before discharging to Lake River. However, Ecology is not sure this is the case and to be most protective it considers the soil leaching to groundwater pathway and groundwater to surface water pathways complete.

Ecology determined that because contaminated groundwater from the non-potable portion of the Site migrates to groundwater that is potable, groundwater throughout the Site is considered potable.

#### 2.3 Site History

Park Laundry operated on the Property from approximately 1965 to 1977. The former owner/operator, Mr. Alvin Johnson, is deceased. The laundry service is believed to have included dry-cleaning services and self-service, coin-operated washers and dryers. Park Laundry's operations had ceased by 1978 when Union Ridge Investment Company (URIC) purchased the Property on May 31, 1979. There was no dry-cleaning equipment in the building at the time of purchase. The Property was sold to Mr. Larry Beaman on February 15, 2000. Mr. Beaman removed the building and subsequently defaulted on his obligations. The Property was quitclaimed to Mr. Robert Hyatt, representing URIC, who then quitclaimed the Property to URIC on November 19, 2007. Mr. Hyatt was the last surviving member of the URIC until he passed in 2019.

A parking lot used by the Ridgefield Police Department and owned by the City of Ridgefield is located along the southern border of the Property. To the east is a one-lane, paved alleyway, bordered by a city skate park and fire station. To the west is North Main Avenue and a food and drink establishment owned by MRS Development, LLC. To the north are two vacant lots owned by Frankie Rima-Hinrich (Clark County GIS, 2016).

MFA reviewed state and federal agency database records, aerial photographs, and Sanborn Fire Insurance Maps for historical information related to the Property to evaluate the area for other potential sources of contamination (MFA, 2011a). Based on MFA's review of state and federal agency records, petroleum-hydrocarbon contamination has been confirmed on nearby properties; however, it is not a chemical of interest for the Park Laundry Site. No other sources of PCE were identified.

#### 2.4 Human Health and Environmental Concerns

The RI/FS report (MFA, 2019) provides a detailed summary of the remedial investigation and previous investigation results and is referenced for detailed information regarding the nature and extent of contaminants and the risk associated with those contaminants. PCE and its possible degradation products are contaminants of concern for the Park Laundry Site.

Soil investigations were conducted in 2010 and 2011 to delineate the nature and extent of soil impacts (MFA, 2010c; 2011a,b). The lateral extent of soil impacts down to 15 feet bgs is generally confined to the Property and the adjoining Hinrich parcels. PCE is also found in a small area of shallow soil on a parcel owned by the City of Ridgefield south and adjoining the Property (see Figure 2-2).

The extent of groundwater impacts has been delineated in the UWBZ, with the exception of monitoring well MW20 to the south of the site; representative concentrations from 2018 and 2019 are shown on Figure 2-3.

An investigation conducted in 2012-2013 with oversight from Ecology and the Washington State Department of Health demonstrated that vapor intrusion is not a pathway of concern for the Site, except in the event that a building be constructed in the Source Area, absent remediation.

If contamination remains in the Source Area and it is redeveloped, a vapor barrier should be included as part of building construction or additional data should be collected to demonstrate that

there is no risk to indoor air. The following are considered as complete exposure pathways at the Site:

- Ingestion or dermal contact by Source Area workers of contaminated soil or groundwater.
- Incidental inhalation of vapors and or dust by Source Area workers from contaminated soil.
- Inhalation of solvent vapors by Source Area workers from contaminated groundwater.
- Contaminant uptake by aquatic life and humans from fish consumption.
- Potential for indoor air inhalation of VOCs volatilizing from Source Area soil or groundwater to any new building constructed at the Source Area.

#### 2.5 Cleanup Standards

#### 2.5.1 Contaminants of Concern

Contaminants of concern (COCs) include trichloroethene (TCE) and PCE. These compounds were selected as COCs based on screening analytical data obtained from groundwater and soil sampling that had concentrations above applicable MTCA CULs.

#### 2.5.2 Cleanup Levels

CULs are selected to be protective of the human health and environment for each media. CULs are provided for PCE and TCE as well as for natural degradation products of PCE and TCE; 1,1-dichloroethene (1,1-DCE), cis-1,2-dichloroethene (cis-1,2-DCE), trans-1,2-dichloroethene (trans-1,2-DCE) and vinyl chloride (VC). VC has been detected in groundwater but not in soil. Compounds other than PCE and TCE have not been detected in Site soil or groundwater, except VC in groundwater, but might appear at some time in the future from PCE and TCE breakdown. There is the potential for contaminants to leach from soil into groundwater at the Source Area. Groundwater flow direction is from the Source Area towards Lake River. CULs are derived to be protective of soil to groundwater to surface water. Site CULs are included on Table 2-1. CULs for impacted media are discussed below:

- Soil: Final CULs for unsaturated and saturated soil are based on protection of potable water and for leaching from soil to groundwater to surface water. When the CULs are lower than the Practical Quantitation Levels (PQLs) those CULs have been adjusted to the PQL. All selected CULs for soil have been found to have a cumulative excess cancer risk of less than 1 in 100,000 (1.0 x 10-5) and a combined noncancer hazard index (HI) of less than 1.
- Groundwater: Final CULs are based on MTCA Method B, the State/Federal Maximum Contaminant Levels (MCLs), Title 40 CFR 131.45, WAC 173-201A, and the Federal Clean Water Act 304. When the CULs are lower than PQLs those CULs have been adjusted to the PQL. All selected CULs for groundwater have been found to have a cumulative excess cancer risk of less than 1 in 100,000 (1.0 x 10-5). The combined noncancer HI for the selected

groundwater CULs exceeds an acceptable HI of 1 but meets the MTCA target threshold of 1 when segregated by target organ.

#### 2.5.3 Remediation Levels

An REL of 0.05 mg/kg in soil was selected to guide the removal of soil containing PCE in the Source Area at the Site. Removal of this material will aid in and increase site-wide degradation of COCs below proposed CULs (Section 2.5.3) via soil excavation and *in situ* groundwater treatment. Approximate proposed excavation extents and in-situ groundwater treatment through injections can be found in Figure 4.1. Final excavation extents will be defined in forthcoming Engineering Design Report (EDR) upon completion of pre-design sampling.

#### 3.0 EVALUATION OF CLEANUP ACTION ALTERNATIVES

#### 3.1 Technology Screening

A preliminary screening of applicable technologies was completed based on technologies discussed in the Federal Remediation Technologies Roundtable Screening Matrix as well as on commonly used industry remediation methods. A number of cleanup techniques are viable to reduce the contaminant levels and reduce toxicity and exposure risk in the areas of highest contaminant concentrations. This in turn will allow natural processes to degrade contaminants where active cleanup actions are not practical. Technologies determined to be effective and implementable were retained for further consideration in the selection of a cleanup alternative:

#### **Natural Attenuation**

Natural attenuation, to the extent to which it is occurring on site, is considered; however, it is not fully relied on for Site cleanup. Several studies have indicated that concentrations of PCE and other chlorinated solvents are reduced by reductive dechlorination under anaerobic conditions; however, there is limited evidence for anaerobic biodegradation of chlorinated organics via natural attenuation (USEPA, 1998). A preliminary analysis of natural attenuation, conducted by MFA (Section 4.2.4), showed limited evidence of natural attenuation. That said, decreases in Source Area concentrations will promote decreases in down gradient concentrations as a result of dispersion.

#### **Excavation and Off-Site Disposal**

Excavation would remove from the Property all or some of the soil exceeding CULs or REL. Excavated material would be transported to a permitted, off-Site disposal facility.

#### In Situ Groundwater Treatment

In situ groundwater treatment remediates the groundwater in place. Chlorinated solvents are reduced by reductive dechlorination and biodegradation. Chemical breakdown is enhanced by healthy microorganism populations that occur naturally in the subsurface and coupled with chemical compounds to enhance microorganism reproduction and growth. The *in situ* groundwater treatment

introduces the chemical and biological compounds into the contaminant plume, often by injection, to reduce the contaminant concentrations. This process is often cost effective and more easily implementable than other remedial technologies. Implementation of this technology does not guarantee that concentration levels will be reduced to CULs.

#### Institutional Controls

Institutional controls (IC) (e.g., a restrictive covenant) may be required to reduce or limit future exposure of receptors to soil and groundwater containing residual COCs at concentrations above relevant CULs. Deed notifications inform potential purchasers of the presence of COCs in soil, soil gas, and/or groundwater, and may limit activities or land use as well as defining requirements for future site-redevelopment activities.

#### 3.2 Evaluation of Cleanup Alternatives

Cleanup alternatives presented in the FS include the following:

- Alternative 1 was no action that does not pass the threshold requirements, and is not discussed further.
- Alternative 2 includes soil excavation of the Source Area to a fifteen foot depth but no groundwater treatment.
- Alternative 3 includes soil excavation of the Source Area to 6 foot depth and focused groundwater remediation out to MW-03.
- Alternative 4 includes soil excavation of the Source Area to fifteen foot depth and focused groundwater remediation out to MW-03.
- Alternative 5 includes soil excavation of the Source Area to 6 foot depth and focused, expanded groundwater remediation encompassing MW-03 and MW-05.
- Alternative 6 includes soil excavation of the Source Area to fifteen foot depth and focused, expanded groundwater remediation encompassing MW-03 and MW-05.
- Alternative 7 includes soil excavation of the Source Area to fifteen foot depth and focused, expanded groundwater treatment encompassing MW-03 and MW-05. It also includes reactive zone injections along public access ways reaching down plume out to Division Street.

Cleanup actions are subject to the threshold requirements set forth in WAC 173-340-360(2)(a). Under the threshold requirements, the cleanup action shall:

- Protect human health and the environment.
- Comply with cleanup standards.
- Comply with applicable state and federal laws.
- Provide for compliance monitoring.

Alternatives 2 through 7 employ Institutional Controls, compliance groundwater monitoring, and monitored natural attenuation.

The selected CULs and REL are consistent with MTCA. Additionally, local, state, and federal laws related to environmental protection, health and safety, transportation, and disposal would apply to the proposed alternatives. Applicable or relevant and appropriate requirements (ARARs) will be refined during the design process. The following are the current significant ARARs:

- Resource Conservation and Recovery Act (RCRA): Disposal of any material off site would be subject to RCRA to ensure appropriate disposal of waste, including hazardous and nonhazardous material. All alternatives include soil excavation and off-site disposal; the material will be profiled and disposed of at an approved and regulated facility.
- Washington State Hazardous Waste Management Regulations: As with the federal RCRA regulations, the material disposed of may be subject to dangerous waste management regulations (Revised Code of Washington [RCW] 70A.300, WAC 173-303). Unless exempt from these regulations, all waste will be handled according to these regulations.
- The Washington State Environmental Policy Act (SEPA): The SEPA process is undertaken when a state governmental entity makes a decision. A SEPA checklist is completed by the lead governmental agency to make a determination of impact.
- Underground Injection Control (UIC) Regulations: UIC regulations require permitting of a project before material can be injected into the subsurface.
- RCW 18.104 and WAC 173-160: Regulates water well construction minimum standards.
- Water Pollution Control RCW 90.48: Regulates storm water discharge from construction sites.

During remedial design, the selected alternative will be designed to comply with ARARs.

#### 3.2.1 Evaluation Factors

MTCA states that in the selection of a cleanup alternative, preference shall be given to "permanent solutions to the maximum extent practicable." "Permanent" is defined in WAC 173-340-200 as a cleanup action in which the cleanup standards of WAC 173-340-700 through 760 are met without further action being required at the Site being cleaned up or at any other Site involved with the cleanup action, other than the approved disposal of any residue from the treatment of hazardous substances.

To determine the "maximum extent practicable" for each alternative, a disproportionate-cost analysis (DCA) outlined in WAC 173-340-360(3)(e) is used. Costs are determined to be disproportionate to benefits if the incremental cost of a more expensive alternative over that of a lower-cost alternative exceeds the incremental degree of benefits achieved by the more expensive alternative. Consistent with WAC 173-340-360(3)(f), the evaluation criteria used were a mix of qualitative and quantitative factors, including protectiveness, permanence, effectiveness over the

long term, management of short-term risks, technical and administrative implementability, and consideration of public concerns.

The cleanup alternatives are evaluated by the criteria below.

#### 3.2.2 Protectiveness

Protectiveness is a factor by which human health and the environment are protected by the cleanup action, including the degree to which existing risks are reduced; the time required to reduce risk at the facility and attain cleanup standards; on-Site and off-Site risks resulting from implementing the cleanup action alternative; and improvement of the overall environmental quality.

Generally, all of the alternatives are protective because there is no complete exposure pathway at the Site, with the exception at the Source Area and where impacted groundwater might enter surface water. All of the alternatives will reduce contamination.

Alternative 2 has a lower ranking for protectiveness: human and ecological exposure to soils exceeding CULs and REL is minimized by removal of the soil from the Site; however, treatment of groundwater would not be addressed in this alternative. Alternatives 3, 4, 5, 6, and 7 also address soil-exceeding CULs and REL by removal from the Site; but, compared to Alternative 2, they hasten the groundwater remediation and are expected to treat soil impacts not removed via excavation (i.e., B8) through *in situ* injections.

#### 3.2.3 Permanence

Permanence is a factor by which the cleanup action alternative permanently reduces the toxicity, mobility, or volume of hazardous substances. It takes into account the adequacy of the alternative in destroying the hazardous substances, the reduction or elimination of hazardous substance releases and sources of releases, the degree of irreversibility of the waste-treatment process, and the characteristics and quantity of treatment residuals generated. Removal of soil would be considered the most permanent soil action because it would permanently eliminate the source of releases at the Property.

Excavation will be used to remove soil contamination. However, it is not feasible to permanently remove all groundwater contamination because low conductivity of the upper terrace deposits and the large contaminant plume. Therefore, the permanence of all alternatives depends on the extent of groundwater treatment and natural attenuation of the contaminants. Alternatives 3, 4, 5, 6, and 7 use additional groundwater treatment and decrease contaminant levels sooner than alternatives without additional groundwater treatment. The alternatives are ranked based on the extent of soil removal and groundwater remediation in order of least to most permanent: Alternative 2, Alternative 3, Alternatives 4 and 5, Alternatives 6 and 7.

#### 3.2.4 Effectiveness over the long term

Long-term effectiveness includes the degree of certainty that the alternative will be successful over the long term; the reliability of the alternative for the expected duration of hazardous substances remaining on site at concentrations that exceed CULs; the magnitude of residual risk with the alternative in place; and the effectiveness of controls required to manage treatment residues or remaining wastes.

Alternative 7 is considered most effective over the long term in addressing groundwater contamination, with Alternative 6 closely ranked behind. Alternatives 4 and 5 are ranked slightly lower than Alternative 6. Alternative 3 addresses the highest areas of the groundwater contamination via bioremediation but not the entirety, resulting in a slightly less effective alternative than Alternatives 4 and 5. Alternative 2 is ranked lower, as no active groundwater remediation is incorporated.

#### 3.2.5 Management of short-term risks

Short-term risks to remediation workers, the public, and the environment are assessed under this criterion. Generally, short-term risks are expected to be linearly related to the amount of material handled, treated, and/or transported and disposed of (e.g., worker injury per cubic yard excavated [equipment failure], public exposure per cubic yard-mile transported [highway accident]).

This factor addresses the risk to human health and the environment associated with the alternative during construction and implementation, and the effectiveness of measures that will be taken to manage such risks. Potential public exposure during transport, handling, and excavation required for the alternatives could lead to short-term risks.

Alternative 3 best facilitates the management of short-term risks, as it includes only shallow soil removal and handling and Source Area injections. Alternatives 2, 4, 6, and 7 include the deeper soil removal and handling, but the deeper extent includes saturated soil with increased shoring and dewatering. Alternatives 5, 6 and 7 also involve drilling in the right-of-way. Alternative 3 is ranked highest, as the active remediation is concentrated in the Source Area and the risks can be controlled accordingly. Alternative 7 is ranked lowest, based on both the deeper soil excavation and extensive injections along public rights-of-way, resulting in slightly higher potential risk to remediation workers and the public.

#### 3.2.6 Technical and administrative implementability

This factor addresses whether the alternative can be implemented and is technically possible. The availability of necessary materials, regulatory requirements, scheduling, access for construction operations and monitoring, and integration with existing and neighboring site uses must be considered.

The deeper soil removal for Alternatives 2, 4, 6 and 7 reduces the implementability.

Alternatives 5, 6, and 7 include the implementation issues associated with increased areas of injection.

#### 3.2.7 Consideration of public concerns

This factor considers concerns from individuals, community groups, local governments, tribes, federal and state agencies, and any other organization that may have an interest in or knowledge of the Site and that may have a preferred alternative. Through the public process, the public will have an opportunity to review and comment on plans.

#### 3.2.8 Disproportionate-Cost Analysis

In accordance with WAC 173-340-360(3)(e), the most practicable permanent solution evaluated will be the baseline cleanup action alternative to which the other cleanup action alternatives are compared. Based on this, Alternative 7 is the baseline alternative for this analysis. Each alternative was given a ranking between one and five (five being optimal, one being inadequate). Where there were only slight differences, fractional rankings were applied. Based on these criteria, Alternative 2 is ranked 2.7; Alternative 3 is ranked 3.5; Alternative 4 is ranked 3.6; Alternative 5 is ranked 3.3; Alternatives 6 and 7 are ranked 3.2 (see initial DCA rankings on Table 3-1).

#### 4.0 DESCRIPTION OF CLEANUP ACTION SELECTED

Results of the disproportionate-cost analysis used in selecting the cleanup action, as provided in the RI/FS (MFA, 2019), indicated Alternative 3 has the highest ranking. Alternative 3 consists of Source Area soil excavation up to six feet bgs, Source Area focused groundwater remediation, institutional controls, and compliance groundwater monitoring.

Ecology has the discretion to favor or disfavor qualitative benefits of the various cleanup alternatives considered and can use that information in selecting a cleanup action. Ecology has reassessed benefits of each cleanup alternative and adjusted the DCA rankings accordingly (see initial and adjusted DCA on Table 3-1). This has resulted in Alternative 4 having the highest cleanup option ranking. Ecology is selecting Alternative 4 as the preferred cleanup option as explained below.

Included here is a description of cleanup Alternatives 3 and 4 and the differences between them.

#### Soil excavation

The soil excavation is centered primarily on the Property and extends to the adjoining Hinrich parcels and shallow soil on property owned by the City. Source Area excavation in Alternative 3 would be 3 to 6 feet bgs covering approximately 700 square foot area (approximately 250 cubic yards total). This would leave soil contamination above REL in the subsurface from 6 to 15 feet bgs. Soil excavation in Alternative 4 would cover an approximately 1,700 square foot area with excavation to 15 feet bgs and a 300 square feet area to 3 feet bgs (approximately 1,000 cubic yards total) (see Figure 4-1). Excavation would be to the top of the underlying clay unit. Contamination does not appear to enter into the clay unit. Alternative 4 would remove soil above REL and contamination that

is a potential contaminant source to groundwater and decrease the potential for direct exposure contact during any building construction and subsurface excavation activity.

At least ten confirmation soil samples would be collected from the excavation limits and be submitted for VOC analysis following Sampling and Analysis Plan (SAP) and Quality Assurance Project Plan (QAPP) requirements.

Alternative 4 would differ from Alternative 3 because dewatering would be needed to allow Source Area excavation below the water table (ranging seasonally between 2 to 7 feet bgs). That water would be contained and characterized for appropriate treatment and disposal. Decommissioning of monitoring wells MWO1 and MW21 would be needed as they are located in the area of the deeper excavation. Another advantage of Alternative 4 is the dewatering would remove impacted groundwater from the Source Area reducing subsurface contaminant contribution from groundwater.

For either alternative, excavated soil will be assessed for hazardous content and disposed at a Subtitle C, or other appropriate, landfill. Cost-effective and environmentally protective methods of disposal, including a Contained-In Determination issued by Ecology, will be explored during remedial design. The excavation will be backfilled with clean, imported fill to existing ground surface and compacted to a minimum of 92 percent based on the Modified Proctor Test (ASTM 2012). Surface restoration will be completed with gravel or asphalt pavement to match previous conditions.

#### Groundwater treatment

In situ groundwater treatment would be the same for either Alternative. Treatment area on the Property and the Source Area would be outside the excavated area to MW03, using injection points to treat PCE in groundwater. For the purpose of the cost estimate, 9,700 square feet will be treated from an average depth of 5 to 15 feet bgs with a reducing agent and enhanced bioremediation solutions (i.e., 43,450 pounds of anaerobic EHC<sup>TM</sup> bioremediation amendment followed by 30 liters of microorganism DHC inoculation to enhance degradation) (see Figure 4-1). The cost estimate was conservatively based on treating PCE concentrations of approximately 300,000 micrograms per kilogram (μg/kg) in soil and 20,000 micrograms per liter (μg/L) in groundwater for the Property and 100,000 μg/kg in soil and 7,000 μg/L in groundwater in the Source Area (nearing MW03).

#### 4.1 Evaluation Factors

The following criteria were used to evaluate and compare Alternatives 3 and 4 following the disproportionate-cost analysis format to determine whether a cleanup action is permanent to the maximum extent practicable.

#### **Protectiveness**

In the FS, Alternative 3 and 4 have the same ranking for protectiveness. Alternative 3 only removes contaminated soil to six feet in depth whereas Alternative 4 soil removal is to 15 feet bgs. Alternative 4 removes contaminated groundwater from the subsurface during dewatering that is not done in Alternative 3. One of the arguments in the FS on Alternative 3 protectiveness is *in situ* groundwater

treatment would likely result in ancillary treatment of soil contamination beneath the water table, reducing the benefit to excavate deeper soil. However, contamination removal is more effective than treatment by substrate injection because the substrate may not reach all contamination. Ecology finds that Alternative 4 removes more contamination from the ground sooner than Alternative 3 and is therefore more protective and ranked higher than Alternative 3.

#### Permanence

Ecology agrees with the FS where Alternative 4 is ranked higher than Alternative 3 for this criterion because of the greater extent of soil and groundwater removal and groundwater treatment to be more effective with less residual contamination to treat and because there is less source contribution to groundwater to feed the distal plume.

#### Effectiveness over the long term

Ecology agrees with the FS where Alternative 4 is ranked higher than Alternative 3 for the same reasons provided under the permanence criterion. Also, with more initial removal of contamination, the cleanup timeframe is reduced.

#### Management of short-term risks

Ecology agrees with the FS where Alternative 3 is ranked higher than Alternative 4 because more impacted media is being handled and transported. Ecology's change to the rankings for Alternatives 3 and 4 better aligns them with the other alternative rankings and relative risks.

#### Technical and administrative implementability

Ecology agrees with the FS where Alternative 3 is ranked higher than Alternative 4 because there is more work required for deeper soil removal and dewatering so implementability is more involved. Ecology's change to the rankings for Alternatives 3 and 4 better aligns them with the other alternative rankings and relative risks.

#### Consideration of public concerns

There is no evaluation factor ranking of this alternative in the FS. The amount of public notification required for Alternative 3 or 4 would be the same.

#### Disproportionate-Cost Analysis

The highest ranked alternative is deemed the more worthy cleanup option over lower ranked alternatives. Ecology's adjusted rankings of the various cleanup alternatives and the average ranking for Alternatives 4 is the highest ranked alternative. See the revised DCA rankings in Table 3-1. Ecology prefers Alternative 4 because it has the highest ranking and is more protective and permanent cleanup option and would likely have a shorter restoration timeframe.

#### 4.2 Groundwater Compliance Monitoring

There are three types of compliance monitoring: protection, performance, and confirmational.

Protection monitoring is designed to protect human health and the environment during the construction and operation and maintenance phases of the cleanup action. Performance monitoring confirms that the cleanup action has met cleanup and/or performance standards. Confirmational monitoring confirms the long-term effectiveness of the cleanup action once cleanup standards have been met or other performance standards have been attained. A long-term performance groundwater-monitoring plan is required for this site to track contamination levels and confirm effectiveness of the cleanup action.

#### 4.2.1 New Well Installation

The vertical extent of contamination in the LWBZ has not been adequately evaluated. Ecology is requiring the drilling of at least three soil borings and installation of groundwater monitoring wells into the sandy gravel portion of the LWBZ beneath the Site to sample and analyze groundwater from these wells for VOCs. A monitoring well installation plan for the LWBZ is a required part of the Engineering Design Report (EDR) deliverable for this CAP.

The borings will be advanced using telescoping casing methodology to prevent drag down of contamination from the UWBZ into the LWBZ. The exact locations and monitoring well design will be worked out with Ecology during the remedial design but well configuration will allow determination of groundwater flow direction in the LWBZ. The wellhead elevations will be surveyed to tie in with existing Site monitoring well network.

#### 4.2.2 Groundwater Sampling Plan

A groundwater-monitoring plan is a required part of the Engineering Design Report. Park Laundry Site (see Figure 1-2) monitoring wells are located in a residential upland area of Ridgefield between North 3<sup>rd</sup> and Railroad Avenues and Division and Pioneer Streets. The monitoring plan will include the sampling schedule for the new LWBZ wells. In addition, three other wells where contamination from the Park Site have been detected, MW-29D, MW-47D, and MW-46D, are located on Port property to the west of the residential area. Ecology requires these three wells be added to the Park Site groundwater-monitoring plan. This will require access be worked out with the Port for sampling and reporting the results. Conducting a baseline-sampling event is required before any remedial activity is attempted. Use the data from the baseline event as the starting concentration to compare all subsequent analytical results and track cleanup progress.

The number of wells proposed in the FS sampling was 11. The CAP requires sampling of 19 wells including the addition of the three wells located on the Port property and the new LWBZ wells. Upland and Port wells are screened in the UWBZ. Compliance sampling event wells include MW02, MW03, MW04, MW05, MW06, MW07, MW09, MW10, MW11, MW13, MW15, MW16, MW20, MW-29D,

MW-46D, and MW-47D. Analytical results from monitoring wells MW08, MW14, MW17, MW18, and MW19 contaminant levels are below CULs for four consecutive monitoring events and are omitted from further sampling. Performance monitoring to check plume status would be at wells MW03, MW04, MW05, and MW13. Sample analysis will be for PCE and its possible degradation products (e.g., TCE, 1,1-DCE, cis-1,2-DCE, trans-1,2-DCE, and VC; see analytes on Table 2-1).

#### 4.2.3 Restoration Progress

Contingency actions will be implemented if performance monitoring data indicates that the cleanup is not on track to achieve the objectives of the cleanup action within the estimated restoration timeframe. Data trends will be reported annually including trend analysis and extrapolation of concentrations over time from wells downgradient from the Source Area to wells at the Lake River shore. Should contaminant levels in groundwater stagnate or increase another Source Area groundwater *in situ* treatment sequence will be required.

#### 4.3 Institutional Controls

It is possible that PCE and its breakdown products will remain in Source Area soil and/or groundwater above CULs set forth in this document after completion of the cleanup actions. If that is the case, an Environmental Covenant (EC) will be required for those properties. The purpose of ICs is to assure both the continued protection of human health and the environment by restricting access to remaining contaminated media while VOCs degrade in response to cleanup actions and monitored natural attenuation.

The EC will prohibit groundwater use at the Source Area for irrigation, potable drinking water, or any use involving human contact. A vapor barrier or control system (or other Ecology-approved approach) will be required for any building constructed over areas where VOCs are present in the subsurface exceeding MTCA vapor intrusion screening levels on the Property and Source Area. Groundwater use prohibition will remain in-place until soil and groundwater CULs have been met. The potentially liable persons (PLP) will incorporate these restrictions into a draft EC for Ecology's review and approval. Assessment may be undertaken periodically to determine whether continuation of ICs is required.

#### 4.4 Point of Compliance

For soil CULs protective of groundwater that is protective of surface water the POC shall be established in the soils throughout the Site.

The POC for groundwater is throughout the site from the uppermost level of the saturated zone extending vertically to the lowest most depth which is known to be affected by the Site (WAC 173-340-720[8] [b]). Groundwater sampling results from the new LWBZ monitoring wells will indicate if that unit is included in the Site POC.

The POC for surface water is the point or points at which hazardous substances are released to the surface water body. For this Site, where hazardous substances are potentially released to surface

water as a result of groundwater flow, no mixing zone is allowed to demonstrate compliance with surface water CULs.

#### 4.5 Restoration Timeframe

The cleanup action has a reasonable restoration timeframe based on the following factors:

- The restoration timeframe varies across the Site but is estimated at approximately 20 years as calculated from PCE degradation rates in groundwater samples from Site monitoring wells dating back to 2011.
- The potential risks to human health and the environment posed by the Site are direct contact with impacted soil or groundwater and inhalation of vapors from the groundwater in close proximity to the Source Area. These potential exposures will be addressed by excavating soil to 15 feet bgs, Source Area dewatering, and *in situ* groundwater remediation.
- The selected alternative will achieve a more reasonable restoration timeframe because it will employ active source cleanup versus leaving all or some Source Area contamination in place and undisturbed.
- The present use of the Property/Source Area parcels are gravel covered parking lots. The proposed use will be for retail or commercial development and will not be affected by contamination from the Site following cleanup actions and use of ICs.
- The FS determined the costs, practicality, and implementability for a cleanup method with a shorter restoration timeframe are disproportionate to the benefits achieved by a cleanup alternative of lower costs. This in particular applies for active cleanup along the entire plume length.
- ICs to be put in place at the Source Area are effective and reliable. See section 4.4 for specifics.
- The plume extent is defined and is not spreading. Sampling data indicates groundwater contaminant levels are decreasing naturally.
- Long-term groundwater monitoring will be conducted to assess the stability, decrease, or increase of concentrations in groundwater and presence of natural attenuation.
- A municipal drinking water source is available and there is no need for development of domestic water supply.
- The implementation, for both excavation and dewatering and injections, is estimated to take a few months.

#### 4.6 Schedule for Cleanup Action Implementation

A schedule of actions and deliverables can be seen on the Consent Decree Exhibit C. Cleanup implementation will begin as described in the final EDR. The EDR will include groundwater monitoring and LWBZ well installation plans.

#### 4.7 Public Participation

Public notice and opportunity for comment on the draft CAP will be provided as required in WAC 173-340-600(14). After review and consideration of the comments received during the public comment period, a final CAP will be issued, with its availability published in the Site Register and the local newspaper(s).

#### REFERENCES

Clark County GIS. 2016. Maps online, property and lands information records. http://gis.clark.wa.gov/mapsonline/ (accessed January 15, 2016).

Ecology. 2013. Consent Decree. Pacific Wood Treating Company Site (or Lake River Industrial Site). July 25.

Ecology. 2019. Electronic mail (re: Park Laundry, Ridgefield—documenting discussion at May 9, 2019, meeting between C. Rankine [Ecology] and J. Maul and M. D'Andrea [MFA]) to J. Maul and M. D'Andrea, Maul Foster & Alongi, Inc., from C. Rankine, Washington State Department of Ecology. June 11.

MFA. 2010a. Remedial Investigation Work Plan, former Park Laundry. Prepared for Union Ridge Investment Company. Maul Foster & Alongi, Inc. January 21.

MFA. 2010b. Letter (Re: Draft Supplemental Soil Gas Sampling Work Plan for Former Park Laundry Site, 122 North Main Avenue, Ridgefield, Washington) to G. Barrett, Washington State Department of Ecology, from M. Gibson and J. Maul, Maul Foster & Alongi, Inc. February 25.

MFA. 2010c. Memorandum (Re: Data Submittal for March 2010 Site Investigation at the Union Ridge Investment Company Property in Ridgefield, Washington) to G. Barrett, Washington State Department of Ecology, from M. Gibson, Maul Foster & Alongi, Inc. June 29.

MFA. 2011a. Letter (Re: Remedial Investigation Work Plan Addendum for Former Park Laundry Site, 122 North Main Avenue, Ridgefield, Washington) to G. Barrett, Washington State Department of Ecology, from M. D'Andrea, Maul Foster & Alongi, Inc. April 5.

MFA. 2011b. Letter (Re: Data Submittal for Former Park Laundry Property, Ridgefield, Washington) to G. Barrett, Washington State Department of Ecology, from M. D'Andrea, Maul Foster & Alongi, Inc. August 29.

MFA. 2012. Letter (Re: Draft Supplemental Indoor Air Sampling Work Plan for Former Park Laundry Site—Agreed Order DE 6829) to G. Barrett, Washington State Department of Ecology, from W. Beadie and J. Maul, Maul Foster & Alongi, Inc. September 26.

MFA. 2014. Letter (Re: Former Park Laundry [Cleanup Site ID 4099] Remedial Investigation Work Plan Addendum) to C. Rankine, Washington State Department of Ecology, from M. D'Andrea and J. Maul, Maul Foster & Alongi, Inc. July 31.

MFA. 2019. Remedial Investigation and Feasibility Study Report, former Park Laundry, Washington State Department of Ecology Agreed Order No. DE 6829. Maul Foster & Alongi, Inc., Vancouver, Washington. July 11.

## **TABLES**

Table 2-1 Park Laundry Cleanup Levels Former Park Laundry The City of Ridgefield Ridgefield, Washington

CAS Number	Analyte	Groundwa Potable In (ug/	gestion	Fresh Surf Cl (ug	JL	Mini Groundw (ug	rater CUL	Soil ( Direct C (mg/	Contact	Soil CUL Pro Ground (unsatu (mg/	water rated)	Soil CUL Protection of Groundwater (saturated) (mg/kg)		Groundwater (saturated)		Groundwater (saturated)		Final Groundwater CUL Fina (ug/L)			inal Soil CUL Protective of GW (mg/kg)	
127-18-4	PCE	5	Α	2.4	С	2.4	С	480	Α	0.024	G	0.0013	G	2.4	С	0.024/0.005	I					
79-01-6	TCE	4	В	0.3	С	0.3	С	12	Α	0.0019	G	0.00011	G	0.3	С	0.005	j					
75-35-4	1,1-DCE	7	Α	300	Ε	7	В	4000	Α	0.046	H	0.0025	Н	7	Α	0.046/0.005	K					
156-59-2	cis-1,2- DCE	16	В	3300	F	16	В	160	Α	0.079	н	0.0052	н	16	В	0.079/0.0052	L					
156-60-5	trans-1,2- DCE	100	А	100	Ε	100	A, F	1600	Α	0.52	н	0.032	н	100	A, E	0.52/0.032	М					
75-01-4	VC	0.29	В	0.02	D	0.02	D	0.67	A	0.00012	G	0.0000062	G	0.02	D	0.005	j					

#### Notes:

CAS = Chemical Abstract Services chemical registry number

CUL = cleanup level

GW = groundwater

mg/kg = milligram per kilogram

ug/L = microgram per liter

Eq. ≈ equation

BCF = biocentration factor

PCE = tetrachloroethene TCE = trichloroethene 1,1-DCE = 1,1-dichloroethene cis-1,2-DCE = cis-1,2-dichloroethene trans-1,2-DCE = trans-1,2-dichloroethene VC = vinyl chloride

- A = MTCA Method B soil or groundwater cleanup level is based on the state/federal Maximum Contaminant Levels (MCLs).
  B = Adjusted Environmental Protection Agency (EPA)/State MCL to a 1E-05 risk level or a hazard quotient of 1.
- C = Human Health Fresh Water Title 40 Code of Federal Regulations (CFR) 131.45
- D = Human Health Fresh Water 173-201A Washington Administrative Code (WAC).
- E = Human Health Fresh Water Clean Water Act 304.
- F = MTCA Method B Surface Water Human Health level based on noncancer effects (MTCA Eq. 730-1). The BCF for trans-1,2-DCE was used for cis-1,2-DCE as these are similar chemicals.

  G = MTCA Method B Eq. 747-1 selected soil CUL for unsaturated or saturated conditions is based on protection of groundwater to surface water.
- H = MTCA Method B Eq. 747-1 selected soil CUL for unsaturated or saturated conditions is based on protection of potable groundwater and groundwater to surface water. I = Selected soil CUL for unsaturated (0.024) or saturated conditions (0.005 - adjusted to Practical Quantitation Level [PQL]) is based on
- protection of groundwater to surface water.
- J = Selected soil CUL for unsaturated or saturated (both adjusted to PQL of 0.005) conditions is based on protection of groundwater to surface water.

  K = Selected soil CUL for unsaturated (0.046) or saturated (0.005 adjusted to PQL) conditions is based on protection of potable water.
- L = Selected soil CUL for unsaturated (0.079) or saturated (0.0052) conditions is based on protection of potable water.
- M = Selected soil CUL for unsaturated (0.52) or saturated (0.032) conditions is based on protection of potable water and groundwater to surface water.

# Table 3-1 Disproportionate-Cost Analysis Former Park Laundry The City of Ridgefield Ridgefield, Washington

Alternative	Description	Į geo	SCHUSTON POR	notarico la constitución de la c	Jen Hieron	ores of set	priorit	, Rock / S	Colored Segret	d Action to d	of Mariner of the London
Alternative 1	No Action										
Alternative 2	Soil Removal to 15'	2/2	2/2	2/2	3/3.2	4/4.5	2.6/2.7	NR	\$771,000	\$319,000	\$1,089,000
Alternative 3	Soil Removal to 6', Focused Groundwater Remediation	4/3.4	3/3	3/3	5/3.5	5/4.4	4/3.5	NR	\$623,000	\$319,000	\$942,000
Alternative 4	Soil Removal to 15', Focused Groundwater Remediation	4/3.6	3.5/3.5	3.5/3.5	2.5/3.0	4/4.3	3.5/3.58	NR	\$1,199,000	\$316,000	\$1,515,000
Alternative 5	Soil Removal to 6', Expanded Groundwater Remediation	4/3.7	3.5/3.7	3.5/3.5	2.5/2.5	3/3	3.3/3.28	NR	\$1,204,000	\$319,000	\$1,523,000
Alternative 6	Soil Removal to 15', Expanded Groundwater Remediation	4/3.9	4/4	4/4	2/2	2/2	3.2/3.18	NR	\$1,781,000	\$316,000	\$2,097,000
Alternative 7	Soil Removal to 15', Complete Groundwater Remediation	4/4	5/5	5/5	1/1	1/1	3.2/3.2	NR	\$3,615,000	\$316,000	\$3,931,000

NOTES:

Ranking values = 1: lowest; 5: highest

3.5/3.58 = Original Remedial Investigation/Feasibility Study ranking/Ecology revised ranking.

NR = No ranking

# **FIGURES**

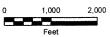
Property Address: Pioneer St & Main St, Ridgefield, Clark County, Washington Source: US Geological Survey (1990) 7.5-minute topographic quadrangle: Ridgefield DLC 38/Section 24, Township 4 North, Range 1 West

## Figure 1-1 Property Location

Former Park Laundry City of Ridgefield, Washington

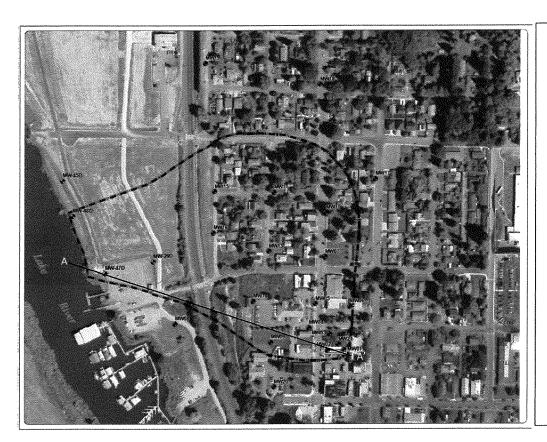


This product is for informational purposes and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.





Produced By: apadilla



# Figure 1-2 Park Laundry Site, Geologic Cross Section and Monitoring Well Locations

Former Park Laundry City of Ridgefield, Washington

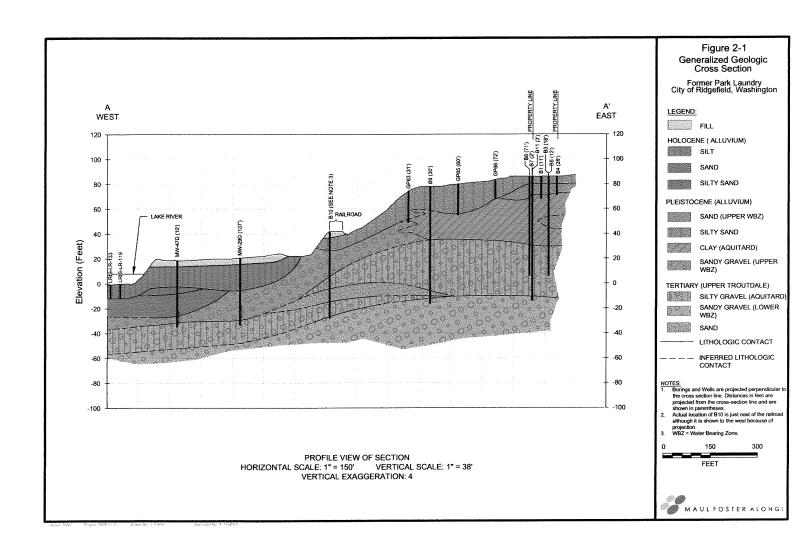
#### Legens Park Laundry M

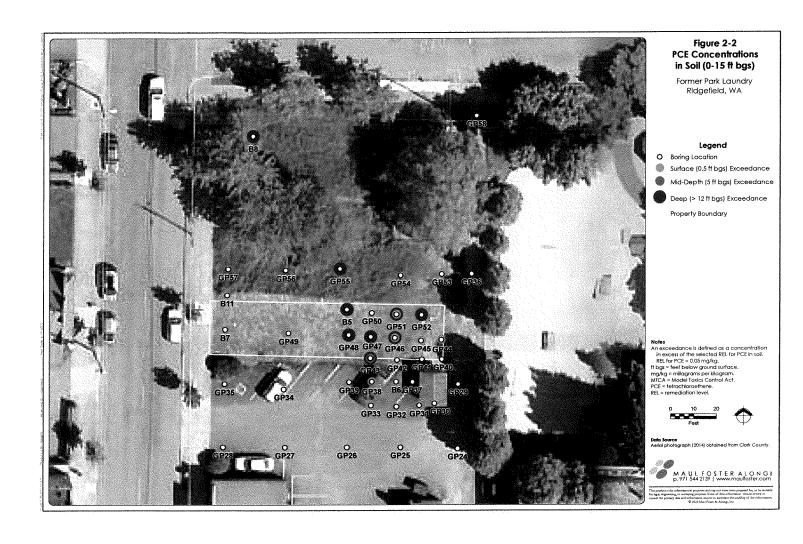
- Park Laundry Montoning Viel
- Port of Ridgefield Monitoring Visit
- Property Boundary
  - Estimated Site Boundary
- Source Area Boundary

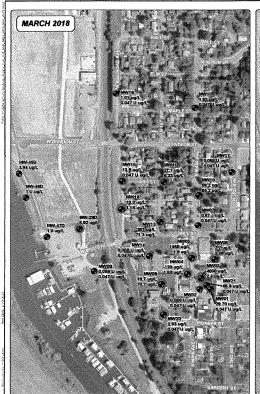
---- Cross Section

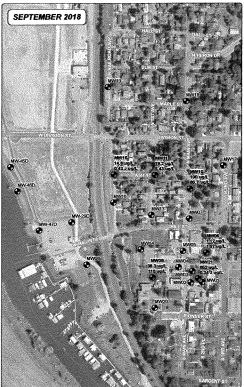


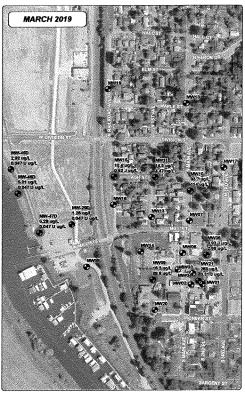












**Data Source**Aerial photograph (2014) and toxlats (2016) obtained from Clark County.



Notes
Park Loundry monitoring well locations were sampled March 19: 2018: September 12: 2018; and March 11: 2019
March 11: 2019
March 11: 2019
March 11: 2019
March 11: 2019
March 11: 2019
March 11: 2019
March 11: 2019
March 11: 2019
March 11: 2019
March 
NS = not sampled.
PCE = Tetrachlaroethene.
TCE = Trichlaroethene.
U = not detected at ar above the reporting limit.
ug/L = micrograms per liter.

Scheckled Monitoring Well Sample Lacation (with monitoring results from March 2018, September 2018, and March 2019) MW10 - Well ID 92 Ug/L - PCE concentration 642 Ug/L - TCE concentration

Monitoring Well Location Not Sampled

Legend

PCE Exceedance (>2.4 µg/L) TCE Exceedance (>0.3 µg/L) PCE & TCE Exceedance (PCE > 2.4 µg/L and TCE > 0.3 µg/L)

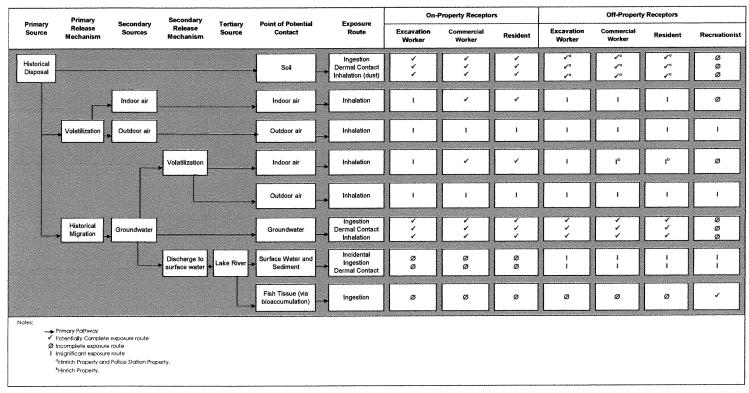
Property Boundary Parcel

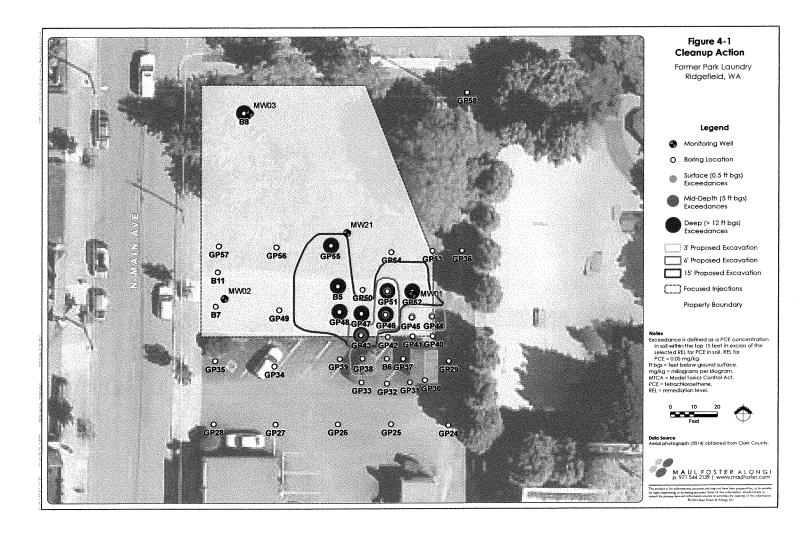
Figure 2-3 Monitoring Results March and September 2018 and March 2019 Former Park Laundy Sile Ridgefield, WA

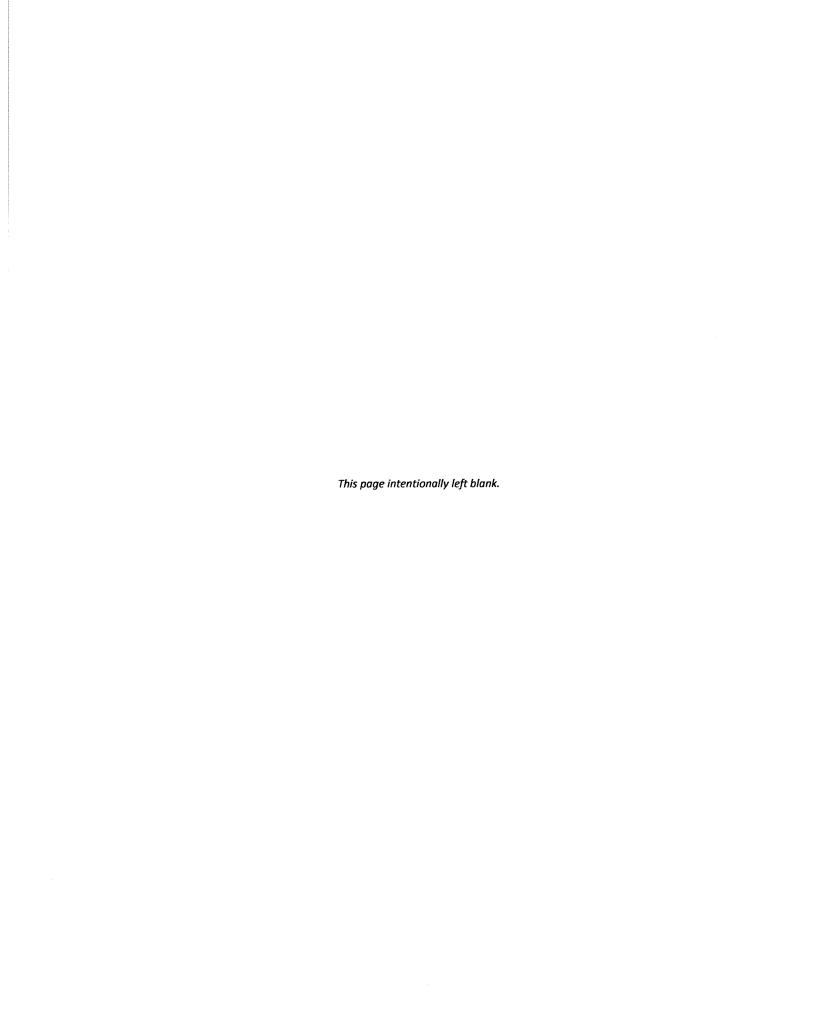




Figure 2-4
Conceptual Site Model of
Potential Human Exposure Pathways
Former Park Laundry
Union Ridge Investment Company
Ridgefield, Washington







#### **EXHIBIT D**

#### **Cleanup Action Plan for the Park Laundry Site**

#### **SCHEDULE OF DELIVERABLES**

The schedule for project work and deliverables described in the Cleanup Action Plan is presented below. If the date for submission of any item or notification required by this Schedule of Deliverables occurs on a weekend, state or federal holiday, the date for submission of that item or notification is extended to the next business day following the weekend or holiday. Where a deliverable due date is triggered by Ecology notification, comments or approval, the starting date for the period shown is the date the City received such notification, comments or approval by certified mail, return receipt requested or by e-mail, unless otherwise noted below. Where triggered by Ecology receipt of a deliverable, the starting date for the period shown is the date Ecology receives the deliverable by certified mail, return receipt requested, by e-mail or the date of Ecology signature on a hand-delivery form.

Deliverables	Completion Times
Submit an Inadvertent and Unanticipated Discovery Plan for Proposed Excavation	Within one-hundred and twenty (120) calendar days following the effective date of the Consent Decree
Submit a Draft Engineering Design Report (EDR) including Groundwater Monitoring and Lower Water-Bearing Zone (LWBZ) Well Installation Plans	Within one-hundred and twenty (120) calendar days following the effective date of the Consent Decree
Submit a Final EDR including Groundwater Monitoring and Lower Water-Bearing Zone Well Installation Plans	Within thirty (30) calendar days following incorporation of Ecology's comments on the draft EDR
Submit Draft Construction Plans and Specifications for Proposed Excavation, In-Situ Groundwater Treatment, and LWBZ Groundwater Monitoring Well Installation	Within one-hundred and twenty (120) calendar days following the submittal of the Final EDR
Submit Final Construction Plans and Specifications for Proposed Excavation, In-Situ Groundwater Treatment, and LWBZ Groundwater Monitoring Well Installation	Within thirty (30) calendar days following the incorporation of Ecology comments on the Draft Construction Plans and Specifications
Begin Contractor Procurement for Remedial Activities	Within forty-five (45) calendar days following the receipt of Ecology approval of Final Construction Plans and Specifications
LWBZ Well Installation and Baseline Groundwater Sampling Event	Start no later than thirty (30) days after Ecology approval of the Final Construction Plans and Specifications
Start Fieldwork, Begin Cleanup Action	Start no later than forty-five (45) days after conducting Baseline Groundwater Sampling Event

Deliverables (cont.)	Completion Times (cont.)							
Submit Remedial Action Completion Report	Within ninety (90) calendar days after Source Area cleanup efforts							
Submit Results of Groundwater Sampling Events	Within sixty (60) calendar days following each groundwater sampling event							
Submit Annual Groundwater Sampling Event	Within ninety (90) calendar days following last sampling event of the year							