

EXHIBIT B –SCOPE OF WORK (SOW) AND SCHEDULE

SCOPE OF WORK

PURPOSE

The work required under this Agreed Order (AO) is to address remaining gasoline-related contamination in soil and groundwater at 1808 N 1st Street. A release of gasoline from an underground storage tank (UST) system was first identified in 1982. Since that time, various investigations and remedial actions have taken place including pumping to remove free product in 1982 and 1983. An assessment of the extent of groundwater contamination was performed by the U.S. Geological Survey (U.S.G.S.) in 1991. The USTs were removed in 2005. The extent of soil and groundwater contamination was reassessed in 2017. The 2017 study showed that while soil and groundwater contamination concentrations remain above MTCA Method A cleanup levels, the extent of contamination is much smaller than the extent of contamination delineated in 1991.

Gasoline contamination in the subsurface tends to naturally degrade provided electron acceptors (e.g. oxygen) are present to support natural biodegradation. The reduction in the extent of contamination between 1991 and 2017 is believed to be due to natural attenuation. The 2017 investigations demonstrated that the groundwater system is aerobic at a distance from the area of contamination. Gasoline in the subsurface typically degrades in the presence of free oxygen. In the core area of the remaining contamination, free oxygen has been depleted and the groundwater system is anaerobic. Therefore, the proposed interim action involves the injection of oxygen, an oxidizing agent, or air into the subsurface to allow the remaining gasoline in soil and groundwater to degrade.

The property is under a Lease-to-Own agreement between the City and a Lessee. The work described herein will be done on behalf of the City, but will need to be done in consultation with the Lessee. This includes coordinating locations and periods of work with the Lessee to minimize adverse impacts to the Lessee's operations.

Three tasks have been developed under this Agreed Order Scope of Work:

- Task 1 – UST & Contaminated Soil Removals
- Task 2 – Monitoring Well Replacements
- Task 3 – Interim Action

Cleanup at the Site under this Agreed Order is proposed as an Interim Action. An Interim Action is a cleanup action under the Model Toxics Control Act (MTCA) that can be performed at any time, and potentially result in a final cleanup action. This would eliminate the need for preparation a Feasibility Study (FS) and Corrective Action Plan (CAP). An Interim Action will allow the City to address remaining contamination at the Site with the

goal of achieving MTCA cleanup levels to allow for a No Further Action (NFA) determination.

Task 1 – UST & Contaminated Soil Removals

Two underground storage tanks (USTs) were found during site preparation work; a waste oil UST and a heating oil UST. Four fueling USTs had previously been removed in 2005. The two USTs were removed on October 14, 2019 and soil samples were collected from the floor and sidewalls of the excavations. Heavy oil was found above cleanup levels in one soil sample collected adjacent to the waste oil tank, and diesel was found above cleanup levels in one soil sample collected adjacent to the heating oil tank. The contaminated soil will need to be excavated and properly disposed of prior to Ecology issuing a No Further Action (NFA) determination for the site. Previously incurred work for the UST removals and contaminated soil excavation and offsite disposal in 2019 shall be considered part of this task.

Task 2 – Monitoring Well Replacements

Subsequent to the Remedial Investigation Report dated May 22, 2017, several monitoring wells were apparently destroyed. In order to perform the Interim Action and associated monitoring under Task 3, several monitoring wells need to be replaced. Ecology will determine the number, locations, and completions of the replacement monitoring wells, in consultation with the property Lessee. Consistent with the existing monitoring wells, the replacement monitoring wells shall be constructed with 2-inch PVC well pipe and screen, with 0.010 slot screens from 10 to 20 feet below ground surface (ft bgs). The monitoring wells shall be completed with flush-mount vaults and locking well caps.

All wastes, including drill cuttings and well development water, shall be properly disposed of. The wells will be installed by licensed well driller, and the wells registered with Ecology.

Task 3 – Groundwater Interim Action

Interim Action Approach

Oxygen, oxidizing agent, or air will be delivered to the subsurface through the installation of temporary injection points. The injection points will be spaced approximately 20 feet apart. A total of 24 injection points are anticipated.

The injection points are anticipated to be installed via direct push (e.g. Geoprobe) methods. A high hammer weight direct push rig (Geoprobe Model 3230 or equivalent) will be needed. A well construction variance potentially could be needed to comply with WAC-173-160. If needed, Ecology Toxics Cleanup Program (TCP) will support a variance application with Ecology Water Resources Program. The following discussion regards the anticipated construction methods for the injection points.

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The probe rod will be driven until refusal is reached or a total depth of 20 ft bgs, whichever is shallower. Nominal 1-inch diameter, Schedule 40 well screen and blank pipe will be lowered within the probe rod to the bottom of the road. The bottom of the well point will consist of one foot length of 0.010 inch slotted PVC with end cap. The well slotted interval will be placed a minimum of three feet below the seasonal low water level, estimated to be 14 ft bgs.

After the PVC well point has been lowered inside the probe rod, the rod will be retracted, allowing the disposable probe tip to fall out of the probe rod, leaving the PVC pipe in place. The probe rods will then be removed from the ground, and the upper one to two feet of the PVC pipe annular space sealed with hydrated granular bentonite. A 3-inch to 5-inch diameter temporary vault will be installed to protect the tubing at the surface.

After all of the injection points have been installed, pressurized oxygen tanks will be acquired, and affixed to the PVC well point using an adaptor and polyethylene tubing along with a pressure gauge. The oxygen will be discharged into the well point at a low rate until either the targeted pressure/volume is reached or the tank is empty. The oxygen will bubble up through the groundwater adjacent to the injection point and either dissolve within the groundwater or migrate upward until it reaches the unsaturated zone, where it will disperse and diffuse radially. The portion of the oxygen that dissolves will disperse laterally within the groundwater, enhancing biodegradation. The portion that reaches the vadose zone is anticipated to enhance biodegradation of vadose zone contamination, as well as at the water table interface.

The rate of injection should be designed to optimize oxygen delivery to the saturate zone (a low flow rate). The added oxygen is expected to significantly accelerate the rate of biodegradation of the remaining gasoline, both within the saturated zone as dissolved phase or adsorbed phase contamination, and within the vadose zone.

There is some uncertainty regarding whether or not the initial injection will result in achievement of targeted cleanup levels. If the injected oxygen does not result in achieving targeted cleanup levels within the desired time span, then additional injection of either oxygen, an oxidizing agent, or air will follow. The steps of the remedial approach and schedule constraints are summarized in Table 1.

Table 1: Remedial Approach Steps

Step	Activity	Schedule
Step 1	Install and develop additional monitoring wells for performance and compliance monitoring.	Within 90 calendar days following the effective date of the Agreed Order.
Step 2	Sample all monitoring wells to characterize baseline conditions.	Within one month of completion of Step 1.
Step 3	Install approximately 24 injection points.	Within one month of completion of Step 2.

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Step 4	Injection of oxygen into injection points.	Within one week of completion of Step 3.
Step 5	Monitor groundwater quality, quarterly for two quarters.	Starting approximately two months after Step 4.
Step 6*	Assess groundwater conditions. If additional treatment needed, return to Step 4. If not needed, proceed to Step 7.	Immediately following completion of Step 5.
Step 7*	Complete additional two quarters of quarterly groundwater monitoring in case or rebound. If rebound concern, return to Step 4. If no rebound concern, proceed to Step 8.	Following completion of Step 6.
Step 8	Prepare Interim Action Completion Report.	Following completion of Step 7.

*Note that Steps 6 and 7 will include decisions by Ecology as to whether or not additional oxygen injection or monitoring is needed. Ecology may identify specific injection points to target for additional oxygen injection, based on groundwater sampling results. A minimum of six quarterly monitoring rounds are anticipated prior to proceeding to Step 8.

The City shall coordinate with Ecology throughout the development of the Interim Action and shall keep Ecology informed of changes to any Work Plan or other project plans, and of any issues or problems as they develop.

Task 3 is divided into four subtasks as follows:

- Task 3a. Interim Action Work Preparation
- Task 3b. Interim Action Field Execution
- Task 3c. Interim Action Contingency Work
- Task 3d. Interim Action Report

TASK 3a. INTERIM ACTION WORK PREPARATION

During Task1, the City's consultant shall make preparations including:

- Submittal of a variance application to Ecology, Water Resources Program, for proposed injection point design.
- Prepare and engineering cost estimate for the project. This estimate include options for contingency injection rounds.
- Identification and contracting of drilling and probing subcontractor(s).
- Identification and contracting of analytical laboratory subcontractor.
- Identification and contracting of licensed surveyor.

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- Sourcing and rental of oxygen tanks, appurtenances, and suitable storage for the tanks during the course of the interim action.
- Submittal of proposed locations and construction of performance/compliance monitoring wells to Ecology for approval.
- Preparation of detailed map of proposed injection locations for approval by Ecology.
- Submittal to Ecology of calculated oxygen injection amounts, including estimated volume, pressure, and radius of influence.
- Preparation a Health & Safety Plan for all Interim Action activities.
- Coordination with the lessor of the property at 1808 N 1st Street and owner of the property at 1904 N 1st Street, and preparation and negotiation of access agreements on behalf of the City.
- Satisfying all requirements of Ecology's Underground Injection Control (UIC) program.

TASK 3b. INTERIM ACTION FIELD EXECUTION

After completion of the preparation activities detailed under Task 1, Steps 1 through 8 shall be executed. Specifications for these steps are included as follows:

- All purge and development water and investigation-derived wastes to be appropriately disposed of.
- Monitoring wells shall be completed with a permanent water-tight flush mount vault, including locking j-plug.
- Monitoring well top of casing elevation and horizontal coordinates to be surveyed by a licensed surveyor to a minimum accuracy of 0.01 feet and 0.1 feet, respectively.
- All monitoring well sampling to follow low flow purge methods using a flow-through cell and including monitoring of pH, temperature, conductivity, turbidity, dissolved oxygen (DO), and oxidation-reduction potential (ORP).
- All laboratory analysis of groundwater samples to include gasoline range organics (NWTPH-Gx), diesel and heavy oil range organics (NWTPH-Dx with no silica gel cleanup), and benzene, toluene, ethylbenzene, and xylenes (BTEX, by EPA Method 8260C).
- Injection points shall be completed with a water-tight flush mount vault, 3-inches in diameter. At the end of the project, these injection points shall be plugged and abandoned by a licensed well driller.

The City's consultant shall provide interim data reports and updates to Ecology as new site data and information become available. Laboratory analysis data shall also be provided in

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electronic format when it has been validated. Raw laboratory data will be provided to Ecology upon request.

TASK 3c. INTERIM ACTION CONTINGENCY WORK

The need for additional oxygen or oxidizing agent injection and/or monitoring will be at the sole discretion of Ecology. The City's consultant shall be prepared to perform additional injection rounds within two weeks of Ecology's decision. Contingency injection of oxidizing agent should be included in the initial underground injection control notification under Task 1 in order to not delay implementation of this contingency option. In addition to contingency injection, contingency rehabilitation of the injection points could be needed in case rapid biofouling is encountered.

TASK 3d. INTERIM ACTION REPORT

The Interim Action Completion Report shall be prepared by the City's consultant after groundwater monitoring has been completed to Ecology's satisfaction. This report shall include:

- Laboratory analytical reports.
- Tables presenting analytical data.
- Evaluation and discussion data quality.
- Drilling logs and monitoring well completion diagrams for new monitoring wells.
- Site plan showing all injection and monitoring locations.
- Table detailing oxygen injection periods, amounts injected by injection point, and slotted interval depths for injection points.
- Time trend plots for key contaminants in groundwater and showing injection events.
- Groundwater monitoring purge field forms.
- Table summary of final field parameter measurements, for each monitoring round.
- Brief discussion of Interim Action methods and results.
- Water level measurement data table, and potentiometric surface map for each monitoring round.

The City's consultant shall compile the above information into an Interim Action Completion Report. Two hard copies and one electronic copy in Adobe (.pdf) format, to Ecology for review and comment.

SCHEDULE OF DELIVERABLES

The schedule for deliverables described in the Agreed Order and the Scope of Work is presented below in Table 2. 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, 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, or the date of Ecology signature on a hand-delivery form.

Table 2: Schedule of Deliverables

Task	Responsible Party	Deliverable description	Completion Times
	City	Selection and contracting with City's Consultant complete.	Within 30 calendar days following the effective date of the Agreed Order
1 – Contaminated Soil Removal	City (work can be done by City's or Lessee's Consultant)	UST closure report.	To Be Determined (prior to Ecology issuing a NFA for the site)
	Ecology	Comments on or approval of submittal.	Within 20 days after report receipt
2 – Replacement Monitoring Wells	City's Consultant	Replacement monitoring well completion diagrams and registration forms.	Within 60 calendar days following the effective date of the Agreed Order
3a – Interim Action Preparation	City's Consultant	Project cost estimate, proposed monitoring and injection well locations and construction, and injection.	Within 60 calendar days following the effective date of the Agreed Order
	Ecology	Comments on or approval of submittal.	Within 14 calendar days of submittal receipt.

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Task	Responsible Party	Deliverable description	Completion Times
3b – Interim Action Field Execution	City's Consultant	Beginning of interim action field work	Within 90 calendar days following the effective date of the Agreed Order
	City's Consultant	Completion of interim action field work	Depends on Ecology decisions regarding injection and monitoring. Minimum of 6 quarters of groundwater monitoring following injection.
3c – Interim Action Contingency Work	City's Consultant	Completion of interim action contingency field work	Depends on Ecology decisions regarding potential additional injection and monitoring.
3d – Interim Action Completion Report	City's Consultant	Submittal of Report to Ecology.	Within 60 calendar days following completion of Interim Actions
	Ecology	Ecology comments on draft report to City.	Within 30 calendar days following receipt of draft document
	City's Consultant	Revised report Ecology ¹	Within 30 calendar days of receipt of Ecology comments

1 – Ecology reserves the right, at the sole discretion of Ecology, to require one additional comment and document revision round, if needed. All Ecology comments must be addressed to Ecology's satisfaction prior to document finalization.