May 21, 2021

Washington State Department of Ecology
Southwest Regional Office
PO Box 47775
Olympia, WA 98504-7775

Attn: Aaren Fiedler

Transmitted via email to: aaren.fiedler@ecy.wa.gov

Re: Request for No Further Action and Response to Ecology Comments
Mason County Public Transit Site
Shelton, Washington
Project No. 1817001.020.021

Dear Mr. Fiedler:

On behalf of Mason Transit Authority (MTA), Landau Associates, Inc. (LAI) is providing this letter documenting additional information for the MTA Transit-Community Center (T-CC) parking lot redevelopment project (Site) as requested in the Washington State Department of Ecology's (Ecology's) further action determination letter, dated November 9, 2020 (Attachment 1). The following paragraphs are intended to clarify specific points provided by Ecology in the further action letter (clarifications referenced to Ecology's comments). Based on the information provided in this letter and its attachments, we request a no further action determination for the Site.

Ecology comment 1.a.i.

Ecology requested that non-detected results be indicated using a less-than symbol followed by the laboratory method detection limit (MDL), and that results greater than the MDL but less than the laboratory practical quantitation limit (PQL) be shown with a "J" flag.

Analytical data tables for soil and groundwater denote non-detected results as the laboratory reporting limit (RL) followed by a "U" flag. When data received from the laboratory is between the MDL and the RL, these values are reported as "J" qualified, indicating an estimated value.

Laboratory RL limits were evaluated against applicable screening levels for this project, and it was determined that the RL is sufficient to meet cleanup levels. Discussions with you and Arthur Buchan, Ecology toxicologist, served to clarify that Ecology would prefer laboratory reporting to the MDL. However, the laboratory RLs are below the Ecology-required PQLs for all constituents, as defined in Ecology's *Guidance for Remediation of Petroleum Contaminated Sites* (Ecology 2016). Therefore, the laboratory RLs are reasonable to fully define the extent of hazardous substances at this Site. The RL and Ecology-required PQL for each constituent sampled in soil and groundwater are presented

alongside the applicable cleanup level (CUL) in Table 1 (groundwater) and Table 2 (soil) in the revised report.

Data included in the revised report from 2019 and 2020 includes laboratory reports with reporting to the RL, not the MDL. Requesting a revision to the MDL would require significant additional project costs including:

- Laboratory costs for providing revised reports for all analytical data presented
- Additional costs for updating data validation and tabulation
- Additional costs for submitting a revision to Ecology's environmental information (EIM) database.

Given the data collected from the Site is sufficient to achieve cleanup levels, we request that Ecology reconsider requiring MDL reporting for this Site. If Ecology has continued concerns about the data sufficiency, we request a meeting between you, Arthur Buchan, LAI, and MTA representatives to discuss further.

In addition, the report has been revised so that all values that were previously indicated as non-detect since they were summed values (petroleum hydrocarbons, total xylenes, PCBs, cPAH toxic equivalency quotient [TEQ]) now have a value with a "U" qualification. Ecology (Arthur Buchan), these non-detect values were modified so that they are either one-half the RL (for cPAH TEQ calculations) or a non-detect is indicated as the highest RL of the constituents summed for the total values. For example, for total petroleum hydrocarbons, the highest RL of GRO, DRO, and ORO is indicated as the non-detect value (value with a "U" qualifier).

Ecology comment 1.a.ii.

Ecology requested that the details of the stockpiled soil generated during the Phase II ESA be reported.

The stockpiled soil generated during the Phase II ESA was analyzed using toxicity characteristic leaching procedures (TCLP) for chromium and lead; the laboratory report is included in the revised report as Appendix A. The soil was hauled to Waste Management's Olympic View transfer station in Port Orchard, Washington for disposal at a Subtitle D Landfill. All locatable disposal information is provided in Appendix A of the revised report.

Ecology comment 1.b.

Ecology requested that analytical results that are greater than the MDL be evaluated as a valid presence of hazardous substances.

See response to Ecology comment 1.a.i.

Ecology comment 1.c.i.

Ecology indicated that carcinogenic polycyclic aromatic hydrocarbon (cPAH) contamination extended beyond the 3-foot (ft) interval and may have been excavated.

To clarify, no cPAH contaminated soil above the selected Model Toxics Control Act (MTCA) Method B cleanup level was detected deeper than 3 ft. Eight deeper soil samples (between 5 and 10 ft below ground surface [bgs]) were collected during the investigation phase of the work. None of these eight samples had detections of cPAHs above the laboratory reporting limit. Additionally, five confirmation soil samples were collected at the Site at the 3-ft depth after excavation activities. All five confirmation soil samples had detections of cPAHs, but all detections were below the selected Method B cleanup level. All confirmation samples collected (both 1-ft depth and 3-ft depth) indicated that no soil contamination above CULs remains at the Site.

The only location where cPAH contaminated soil above the selected Method B cleanup level was detected was in the 0- to 3-ft interval at B06. No cPAHs were detected in a deeper sample taken from B06 at 7.5 ft. Following excavation of the first 1 ft of soil, additional sampling was conducted around the B06 location to determine if there was remaining soil in this area that exceeded MTCA Method B cleanup levels. Four samples (samples B09, B10, B11, and B12) were collected from the remaining 1- to 3-ft interval and no contamination above CULs was detected in any of the samples (Figure 3 and Table 7 of the revised report). Subsequently, an additional 2 ft of soil was removed from this area, per the planned Site preparation, and a confirmation soil sample (B20) was collected from the approximate location of previous boring B06, along with eight other samples from the excavated Site surface (Figure 4 of the report). Confirmation soil sampling indicated that no soil contamination above CULs remains at the Site.

Ecology comment 1.c.ii.

Ecology requested that isopleth figures in both plan view and geologic cross-section that show the location and extent of all hazardous substances in media be provided.

There was only one sample location (B06) from the 2019 investigation activities that exceeded the CUL for cPAHs. The location of the prior cPAH exceedance is shown on Figure 3 in the attached report. The sample was collected from ground surface to 3 ft and cPAHs were not detected in samples collected below that interval. Given that the area of contamination is extremely limited (only one sample) we trust that the vertical extent is clear without providing a cross-section view. Additionally, isopleths are not suited to a single location. As an alternative, the area has been labeled and data boxes have been added for the exceedance of the CUL to assist with interpretation of the data on Figure 3 of the report. Please keep in mind that the ground surface to 3 ft interval where cPAHs were detected has been excavated and removed from the Site.

To further clarify the sample locations and final excavation extents completed as part of Site redevelopment, a summary figure (Figure 5) has been added to the report. In addition, data tables are

updated with added information about sample type (investigation, performance,[1] confirmation) to clarify which samples are from soil that remains in place (investigation and confirmation) and which samples are from soil that was subsequently removed (performance).

Ecology comment 1.d.

Ecology noted that completion of the Terrestrial Ecological Evaluation (TEE) form is not sufficient to document terrestrial ecological evaluation; that two exclusions were identified on the form but only one exclusion was discussed in the text.

The TEE form has been updated to select only the exclusion under WAC 173-340-7491(1)(c). In Appendix C of the attached report, we have also included a map showing a 500-ft buffer around the property and an aerial photo demonstrating that the property is within an urban area and there is no undeveloped land on or within 500 ft of the property boundary.

Ecology comment 1.e.

Ecology recommended submitting transport manifests and landfill disposal receipts to document the removal of investigation derived waste (IDW) from the Site. Waste manifests and disposal receipts have been added as an appendix to the report.

Ecology comment 1.f.

Ecology stated that sampling data submitted to Ecology for review are considered incomplete until the electronic data has been accepted. The electronic data was accepted into Ecology's EIM database on September 29, 2020.

Ecology comment 2

Ecology noted that the cleanup levels and points of compliance established for the Site do not meet the substantive requirements of MTCA.

The cleanup standards section of the report has been revised to comply with MTCA requirements. Additional sections include discussion of applicable or relevant and appropriate requirements (ARARs), points of compliance, additional discussion on CULs, and an evaluation of total Site risk.

Ecology comment 2.a.

Ecology noted that points of compliance need to be proposed.

The revised report includes identification of points of compliance for groundwater and soil. The groundwater point of compliance is the standard point of compliance, which is throughout the Site as described in Section 3.2 of the revised report. The soil point of compliance is the standard point of

[1] Performance samples are indicated to define samples that were taken as monitoring performance of excavation cleanup activities.

compliance protective of direct human contact, from the ground surface to 15 ft bgs as described in Section 3.3 of the revised report.

Ecology comment 2.b.i.

Ecology had comments on the natural background concentrations for arsenic proposed as the CUL in the report.

Method A cleanup levels for arsenic are used in the revised report, as allowed in Ecology's *Concise Explanatory Statement* GQ 9.1.4 (Ecology 2001). Note that the Method A cleanup level is based on natural background concentrations for arsenic (Ecology 1991) and, as such, the arsenic CUL does not need to be adjusted downwards to account for total Site risk. If Ecology does not agree with this rationale, we request a meeting between you, Arthur Buchan, LAI, and MTA representatives to discuss further.

Ecology comment 2.b.ii.

Ecology had a comment about the chromium cleanup level used in the report and discussed the differences between chromium III, chromium VI, and total chromium.

Hexavalent chromium (Chromium VI) analysis was conducted during the initial Site investigation work (presented in Table 4 of the report). There were no detections of hexavalent chromium, therefore, total chromium analysis is compared to the trivalent chromium (Chromium III) cleanup level as recommended in the chromium note included in the February 2021 Cleanup Levels and Risk Calculation (CLARC) Tables (Ecology 2021).

Ecology comment 2.b.iii.

Ecology noted that the hazard index and excess cancer risk needed to be evaluated for total Site risk.

The revised report includes discussion of the total Site risk and adjustments to the final CULs as needed to assure the hazard index does not exceed a hazard quotient value equal to 1; and to assure the total excess cancer risk does not exceed a value of 1×10^{-5}. See discussion in Section 3.3 of the revised report.

Ecology comment 2.c.

Ecology noted that ARARs need to be defined in the report.

Section 3.1 of the revised report includes a discussion of ARARs.

Ecology comment 3

Ecology stated that the cleanup action selected in the revised report may meet MTCA requirements; however, additional reporting and efforts in establishing cleanup standards is required before Ecology can make a final determination.

LAI maintains that the cleanup action selected for the Site meets MTCA requirements. With the additional information provided in this letter and associated attachments, LAI, on behalf of MTA, is requesting a no further action determination at this time.

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We hope that the clarification in this letter, along with the additional information provided in the report and attachments, will provide Ecology with sufficient information to provide a no further action determination for the Site. Please contact Sarah Fees (sfees@landauinc.com) or Marshall Krier (mkrier@masontransit.org) with any questions.

LANDAU ASSOCIATES, INC.

Sarah Fees

Sarah Fees, LG
Associate Geologist

KMG/SEF/kjg
[Y:\1817\001\R\RESPONSE TO ECY COMMENTS\COVER LETTER_MTA.DOCX]

cc: Marshall Krier, Mason Transit (mkrier@masintoransit.org)

References

Ecology. 1991. Responsiveness Summary for the Amendments to the Model Toxics Control Act Cleanup Regulation, Chapter 173-340 WAC. Publication No. 91-09-918. Washington State Department of Ecology. January.

Ecology. 2001. Concise Explanatory Statement for the Amendments to the Model Toxics Control Act Cleanup Regulation Chapter 173-340 WAC. Publication No. 01-09-043. Toxics Cleanup Program, Washington State Department of Ecology. February 12.

Ecology. 2016. Guidance for Remediation of Petroleum Contaminated Sites. Publication No. 10-09-057. Washington State Department of Ecology. Revised June. https://fortress.wa.gov/ecy/publications/documents/1009057.pdf.

Ecology. 2021. Cleanup Levels and Risk Calcuclation (CLARC). Washington State Department of Ecology. https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Contamination-clean-up-tools/CLARC.

Attachments

Attachment 1: Ecology Further Action Determination Letter

ATTACHMENT 1

Ecology Further Action Determination Letter

Electronic Copy

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
PO Box 47775 • Olympia, Washington 98504-7775 • 360-407-6300
Call 711 for Washington Relay Service • Persons with a speech disability can call 877-833-6341

November 9, 2020

Danette Brannin
Mason Transit Authority
790 E Johns Prairie Rd.
Shelton, WA 98584
dbrannin@masontransit.org

Re: Further Action at the following Site:

- **Site Name:** Mason County Public Trans Site
- **Site Address:** 536 W Railroad Ave., Shelton, 98584, Mason County
- **Facility/Site ID:** 69807
- **Cleanup Site ID:** 14444
- **VCP Project ID:** SW1634

Dear Danette Brannin:

On April 23, 2020, the Washington State Department of Ecology (Ecology) received your request for an opinion on the proposed independent cleanup of the Mason County Public Trans Site (Site). On June 1, 2020, Ecology received a request to delay our review of the submitted report because you wished to update and include additional information. A final updated report sealed by the licensed professional was received on August 6, 2020. That report indicated that analytical data was last uploaded to the electronic database (EIM) on September 30 2019. Analytical data collected after that date were not available to Voluntary Cleanup Program (VCP) staff at the time of this review, but were accepted into the EIM database on September 29, 2020.

To provide a more timely response, Ecology is issuing this opinion prior to reviewing that EIM data. Ecology will review and comment on the sufficiency of the Site's EIM data set in our next opinion for the Site. We are providing this opinion under the authority of the Model Toxics Control Act (MTCA),[1] chapter 70A.305 Revised Code of Washington (RCW).[2]

[1] https://fortress.wa.gov/ecy/publications/SummaryPages/9406.html
[2] https://app.leg.wa.gov/RCW/default.aspx?cite=70A.305

Issue Presented and Opinion

Ecology has determined that further remedial action is necessary to clean up contamination at the Site.

This opinion is based on an analysis of whether the remedial action meets the substantive requirements of MTCA, chapter 70A.305 RCW, and its implementing regulations, Washington Administrative Code (WAC) chapter 173-340 (collectively "substantive requirements of MTCA"). The analysis is provided below.

Description of the Site

This opinion applies only to the Site described below. The Site is defined by the nature and extent of contamination associated with the following releases:

- Diesel range and Oil range total petroleum hydrocarbons (TPH-D, TPH-O, collectively TPH-D/O) into the soil.
- Metals into the soil.
- Carcinogenic polycyclic aromatic hydrocarbons (cPAH) into the soil.

A detailed description of the Site and history of activities can be found in the July 6, 2020, Landau Associates' Site Investigation and Cleanup Report (the Report). **Enclosure A** includes a brief description of the Site, as currently known to Ecology. Site location information can be found on Ecology's What's In My Neighborhood website.[3]

A parcel of real property can be affected by multiple sites. At this time, we have no information that the parcel(s) associated with this Site are affected by other sites.

Basis for the Opinion

This opinion is based on the information contained in the following documents:

1. Landau Associates Inc. (LAI), *Site Investigation and Cleanup Report*, July 6, 2020.
2. Ecology, Further Action at the following Site, letter, addressed to Danette Brannin, February 20, 2019.
3. Materials Testing & Consulting, Inc. (MTC), Phase II Environmental Site Assessment; MTA Community Center – Proposed Parking Area, letter, addressed to Danette Brannin, November 30, 2017.

[3] https://apps.ecology.wa.gov/neighborhood/?lat=47.21357&lon=-123.10590

4. Jerome W. Morrissette & Associates Inc., P.S. (JWM&A), Professional Services Report, letter, addressed to Mr. Robert Johnson, March 15, 2012.

Those documents are kept in the Central Files of the Southwest Regional Office of Ecology (SWRO) for review by appointment only. Information on obtaining those records can be found on Ecology's public records requests web page.[4] Some site documents may be available on Ecology's Cleanup Site Search web page.[5]

This opinion is void if any of the information contained in those documents is materially false or misleading.

Analysis of the Cleanup

Ecology has concluded that **further remedial action** is necessary to clean up contamination at the Site. That conclusion is based on the following analysis:

1. Characterization of the Site.

Ecology has determined your characterization of the Site is not sufficient to establish cleanup standards and select a cleanup action. As currently known to Ecology, the Site is described above and in **Enclosure A.**

In response to Ecology's February 2019 Further Action letter, LAI conducted additional Site investigations to close the data gaps identified by Ecology. Eight additional borings were advanced on the two parcels that encompass the Site, and three of those borings had groundwater samples collected.

As part of the planned Site redevelopment, shallow soils in the 1 foot to 3 foot interval were removed.

The exposure pathways for the Site as Ecology currently understands them are:

Soil-Direct Contact: Ecology has determined that there is a potentially incomplete pathway to receptors of concern.

Soil-Leaching: Ecology has determined that there is a potentially incomplete pathway to receptors of concern.

Soil-Vapor: Ecology concurs that there is likely an incomplete pathway to receptors of concern. Although it has **not** been demonstrated that the Site has been fully defined, hazardous substances present near the on Site building are below Method A soil and groundwater cleanup screening levels.[6]

[4] https://ecology.wa.gov/About-us/Accountability-transparency/Public-records-requests
[5] https://apps.ecology.wa.gov/gsp/Sitepage.aspx?csid=14444
[6] Washington State Department of Ecology, Petroleum Vapor Intrusion (PVI): Updated Screening Levels, Cleanup Levels, and Assessing PVI Threats to Future Buildings, Implementation Memorandum No. 18, Publication No. 17-09-043, January 2018. Section 5.2

Groundwater: Ecology has determined that there is a potentially incomplete pathway to receptors of concern.

Ecological: Ecology has determined that there is a potentially incomplete pathway to receptors of concern.

Ecology considers the pathways for soil-direct contact, soil-leaching, groundwater, and ecological to be potentially incomplete because although it does appear that it is more likely than not those pathways are incomplete, it has not been sufficiently and completely demonstrated to Ecology for the Site record that those pathways are actually incomplete.

Based on this analysis, Ecology has the following comments:

(a) There were three items discussed in Ecology's February 2019 opinion letter that still remain unaddressed for the Site. These are correct reporting of analytical results,[7] reuse of stockpiled soils and sampling beneath and in the vicinity of that stockpile,[8] and establishment of points of compliance.[9] For a more detailed explanation on establishing points of compliance, refer to section 2(c) below.

(i) **Reporting of Analytical Results**. A MTCA cleanup Site can be generally thought of as the lateral and vertical extents of hazardous substances released to the environment, irrespective of property boundaries or eventual cleanup levels. Site definition needs to be finalized in accordance with WAC 173-340-200 and WAC 173-340-350(7).[10,11]

When you only report the analytical results to a laboratory reporting limit (RL) and not the laboratory method detection limit (MDL) it potentially creates the impression that there is an ever-present or background concentration of all hazardous substances that you are sampling for and having analyzed by the laboratory. This makes it difficult for Ecology to determine if the extent of hazardous substances have been defined, and if there are potential sources or other areas that need to be further investigated.

For clarity and to help Ecology understand the state of your Site, please indicate non-detected results using a '<' (less than symbol) followed by the laboratory method detection limit (MDL) and not just an 'ND'. Additionally, please include the 'estimate' or 'approximate' flag (usually a 'J') when reporting results that are either flagged as such by the laboratory or are determined in your data validation process to be greater than the MDL but less than the laboratory practical quantitation limit (PQL). For example, if an analytical results is non-detect for an analyte that has a MDL of 0.10 milligrams per kilogram (mg/kg), the results should be presented as "<0.10 mg/kg". If an analytical result is 0.20 mg/kg for that same analysis, and the PQL is 0.50 mg/kg, the result should be presented as "0.20J mg/kg" in your report.

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[7] Ecology, February 2019, p. 5.
[8] Ecology, February 2019, p. 6.
[9] Ecology, February 2019, p. 6.
[10] https://apps.leg.wa.gov/wac/default.aspx?cite=173-340-200
[11] https://apps.leg.wa.gov/wac/default.aspx?cite=173-340-350

(ii) **Reuse and Stockpile Sampling**. Please report to Ecology if the stockpile generated during the Phase II (PII) Environmental Site Assessment (ESA) was reused or if it was disposed of at a landfill and indicate on a Site map where the stockpile was located. If the sampling previously requested by Ecology was conducted, clearly indicate those samples in a summary table and on Site figures. If the stockpile was reused, please provide a summary table demonstrating that the stockpile soils met the reuse criteria detailed in the Guidance for Remediation of Petroleum Contaminated Sites.[12] The concentrations given in Table 12.1 are considered absolute not to exceed concentrations.[13]

(b) When defining the extents of hazardous substances that make up a Site, for Ecology review, the Site should be defined to natural background concentrations or laboratory method detection limits (MDLs). Analytical results that are greater than the laboratory method detection limit (MDL) should be evaluated as a valid presence of hazardous substances. Results that are greater than the MDL but less than or equal to the laboratory practical quantitation limit (PQL) are considered estimated values by Ecology and not non-detect results.

(c) (i) Currently, it appears to Ecology that cPAH contamination that exceeds the selected MTCA Method B cleanup screening level extended beyond the 3 foot interval may have been excavated (sample MTA-B06).

(ii) To assist Ecology in determining the status of your Site, and the extent to which hazardous substances have been removed, please provide isopleth figures in both plan view and geologic cross-section that clearly demonstrate the locations and extents of all hazardous substances in all media, and not just those hazardous substances that exceed a proposed cleanup level. Analytical summary tables should clearly indicate which samples have been removed by excavation, clearly indicate what the level of reporting was for the analysis (MDL, PQL, or other method), and should not have any result greater than the MDL reported as a non-detect result.

(d) Completion of the Terrestrial Ecological Evaluation (TEE) Form is not sufficient to document your terrestrial ecological evaluation. You still need to document your analysis and the basis for your conclusion in your cleanup report under WAC 173-340-7490.[14]

In the TEE form included in the Report, you selected exclusions under WAC 173-340-7491(1)(b); "all contaminated soil, is or will be, covered by physical barriers that prevent exposure to plants and wildlife, and institutional controls are used to manage remaining contamination," and WAC 173-340-7491(1)(c); "there is less than 0.25 acres of contiguous undeveloped land on or within 500 feet of any area of the Site…"[15] In the Report text, only 7491(1)(c) is discussed.[16]

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[12] Washington State Department of Ecology Toxics Cleanup Program, Guidance for Remediation of Petroleum Contaminated Sites, Publication No. 10-09-057, Revised June 2016. https://fortress.wa.gov/ecy/publications/SummaryPages/1009057.html
[13] Guidance for Remediation of Petroleum Contaminated Sites, p. 187
[14] https://apps.leg.wa.gov/wac/default.aspx?cite=173-340-7490
[15] https://apps.leg.wa.gov/wac/default.aspx?cite=173-340-7491
[16] Report, p. 3-1.

If physical barriers or any other engineering control are deemed necessary for this Site and used to mitigate exposure to hazardous substances, institutional controls in the form of an environmental covenant will also be necessary. A draft environmental covenant has not been submitted for Ecology review.

Ecology recommends not claiming an exclusion under 7491(1)(b), unless it is determined to be necessary, and providing documentation in the form of a map with an analysis of contiguous undeveloped land within 500 feet of Site using the instructions in the Concise Explanatory Statement (CES), question GQ 14.2.4.[17]

If engineering controls and institutional controls are determined to be necessary for this Site, we encourage you to contact Ecology to determine your next steps.

(e) In order to document that any of the excavated soils and investigation derived waste (IDW) have been removed from the Site and properly disposed of, Ecology recommends submitting transport manifests and landfill disposal receipts.

(f) In accordance with WAC 173-340-840(5)[18] and Ecology Toxics Cleanup Program Policy 840 (Data Submittal Requirements),[19] data generated for Independent Remedial Actions shall be submitted simultaneously in both a written and electronic format. For additional information regarding electronic format requirements, see Ecology's EIM – environmental monitoring data website. According to the policy, any reports containing sampling data that are submitted for Ecology review are considered incomplete until the electronic data has been accepted.

Ecology recommends submitting data to EIM as soon as possible to avoid unnecessary delays in receiving reviews and opinions from Ecology. Please ensure that data generated during on-site activities is submitted pursuant to this policy. **Data must be present in the EIM database at the time any report is submitted requesting an opinion on the sufficiency of the action under the VCP**. Be sure to submit all soil and groundwater data collected to date, as well as any future data, in this format. Data collected prior to August 2005 (effective date of this policy) is not required to be submitted; however, you are encouraged to do so if it is available.

(g) Ecology recommends reviewing the Remedial Investigation checklist for details on what Ecology considers the minimum requirements for a complete Remedial Investigation (RI) report.[20] Ecology also provides an RI report template if additional assistance in needed.[21] Both of these documents as well as additional assistance in reporting to the VCP can be found on the Working with the Voluntary Cleanup Program web page.[22]

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[17] Washington Department of Ecology, Concise Explanatory Statement for the Amendments to the Model Toxics Control Act Cleanup Regulation Chapter 173-340 WAC, Publication No.: 01-09-043, February 12, 2001. https://fortress.wa.gov/ecy/publications/summarypages/0109043.html
[18] https://apps.leg.wa.gov/wac/default.aspx?cite=173-340-840
[19] Washington State Department of Ecology, Toxics Cleanup Program Policy 840: Data Submittal Requirements, Publication No. 16-09-050, April 12, 2016.
[20] https://fortress.wa.gov/ecy/publications/SummaryPages/1609006.html
[21] https://ecology.wa.gov/Asset-Collections/Doc-Assets/Contamination-cleanup/Cleanup-process/RemedialInvestigationTemplate
[22] https://ecology.wa.gov/Spills-Cleanup/Contamination-cleanup/Voluntary-Cleanup-Program/Working-with-VCP

2. Establishment of Cleanup Standards.

Ecology has determined the cleanup levels and points of compliance you established for the Site do not meet the substantive requirements of MTCA.

Cleanup Standards: Under MTCA, cleanup standards consist of three primary components; (a) points of compliance,[23] (b) cleanup levels,[24] and (c) applicable state and federal laws.[25]

(a) Points of Compliance. Points of compliance, that you need to propose, are the specific locations at the Site where cleanup levels must be attained. For clarity, Ecology provides the following table of standard points of compliance:

Media	Points of Compliance
Soil-Direct Contact	Based on human exposure via direct contact, the standard point of compliance is throughout the Site from ground surface to fifteen feet below the ground surface.[26]
Soil- Protection of Groundwater	Based on the protection of groundwater, the standard point of compliance is throughout the Site.[27]
Soil-Protection of Plants, Animals, and Soil Biota	Based on ecological protection, the standard point of compliance is throughout the Site from ground surface to fifteen feet below the ground surface.[28]
Groundwater	Based on the protection of groundwater quality, the standard point of compliance is throughout the site from the uppermost level of the saturated zone extending vertically to the lowest most depth which could potentially be affected by the site.[29]
Groundwater-Surface Water Protection	Based on the protection of surface water, the standard point of compliance is all locations where hazardous substances are released to surface water.[30]
Air Quality	Based on the protection of air quality, the point of compliance is indoor and ambient air throughout the Site.[31]
Sediment	Based on the protection of sediment quality, compliance with the requirements of 173-204 WAC.[32]

(b) Cleanup Levels. Cleanup levels are the concentrations of a hazardous substance in soil, water, air, or sediment that are determined to be protective of human health and the environment. At this Site, MTCA Method B unrestricted cleanup screening levels were used to evaluate soil contamination detected at the Site, and MTCA Method A unrestricted cleanup screening levels were used to evaluate groundwater contamination at the site.

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[23] WAC 173-340-200 “Point of Compliance.”
[24] WAC 173-340-200 “Cleanup level.”
[25] WAC 173-340-200 “Applicable state and federal laws,” WAC 173-340-700(3)(c).
[26] WAC 173-340-740 (6)(d)
[27] WAC 173-340-747
[28] WAC 173-340-7490(4)(b)
[29] WAC 173-340-720(8)(b)
[30] WAC 173-340-730(6)
[31] WAC 173-340-750(6)
[32] WAC 173-340-760

MTCA Method B soil and MTCA Method A groundwater cleanup levels may be appropriate for contaminants at this Site, depending on the results of the needed terrestrial ecological evaluation and the completion of the remedial investigation demonstration. Please address the technical and administrative issues with the cleanup screening levels you propose:

i. LAI is attempting to establish a background based cleanup level (CUL) for arsenic using the 1995 U.S. Geological Survey (USGS) Background Concentrations of Metals in Soils from Selected Regions in the State of Washington.[33] At 13 mg/kg, the USGS background concentration is nearly twice the regional background concentration of 7 mg/kg established in Ecology's Natural Background soil Metals Concentrations in Washington State,[34] and more than an order of magnitude greater than the MTCA Method B cancer based CUL of 0.67 mg/kg.

The USGS document may be considered applicable and relevant (see section 2(c) below); however, applicable laws and regulations established under WAC 173-340-710,[35] may require certain specific MTCA CULs to be decreased for a Site. They cannot be used to increase a CUL to a concentration greater that what is established by Ecology. Because both the MTCA Method B cancer based CUL and Ecology established background concentration for arsenic do not exceed the background concentration established by the USGS, no adjustment is necessary.

ii. LAI is attempting to establish a MTCA Method B total chromium soil CUL. Method B does not have a soil CUL for total chromium, only for the individual species of chromium III and chromium VI. Ecology recommends reviewing the chromium note included in the August 2020 Cleanup Levels and Risk Calculation (CLARC) Tables, but in general, Ecology expects that chromium VI analysis will be conducted for any soil sample where the total chromium analytical result exceeds the Method B chromium VI CUL.[36]

iii. When using Method B cleanup standards for multiple hazardous substances, it is necessary to assess the hazard index and the total excess cancer risk under WAC 173-340-705.[37] Adjustments to the final CULs may need to be made to assure the hazard index does not exceed a value of HQ=1, and to assure the total excess cancer risk does not exceed a value of 1×10^{-5}. Please provide an assessment of the CULs applicable to this Site and report to Ecology if any of those CULs needed to be adjusted down to prevent an exceedance of the hazard index or total excess cancer risk.

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[33] U.S. Geological Survey, Background Concentrations of Metals in Soils from Selected Regions in the State of Washington, Water-Resources Investigations Report 95-4018, 1995
[34] Washington State Department of Ecology Toxics Cleanup Program, Natural Background Soil Metals Concentrations in Washington State, Publication No. 94-115, October 1994. https://fortress.wa.gov/ecy/publications/SummaryPages/94115.html
[35] https://apps.leg.wa.gov/wac/default.aspx?cite=173-340-710
[36] https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Contamination-clean-up-tools/CLARC
[37] https://apps.leg.wa.gov/wac/default.aspx?cite=173-340-705

As stated in Section 2 of the February 2019 opinion letter, Ecology does believe that Method A CULs are appropriate for this Site. For any hazardous substances that do not have a Method A CUL established, you can use the Method B CULs under WAC 173-340-700(8)(b)(i).[38]

(c) Applicable Laws and Regulations. In addition to establishing minimum requirements for cleanup standards, applicable local, state, and federal laws may also impose certain technical and procedural requirements for performing cleanup actions. These requirements are described in WAC 173-340-710. An online tool[39] is currently available to help you evaluate the local requirements that may be necessary.

All cleanup actions conducted under MTCA shall comply with applicable state and federal laws.[40] The person conducting a cleanup action shall identify all applicable local, state, and federal laws. The department shall make the final interpretation on whether these requirements have been correctly identified and are legally applicable or relevant and appropriate.[41,42]

There are three general groups of applicable local, state, and federal laws that need to be included:

i. **Chemical-Specific:** Examples of chemical-specific laws include promulgated concentrations from another rule that result in adjusting proposed cleanup levels. Method A is inclusive of these laws. For Methods B or C, additional evaluation of chemical-specific applicable state and federal laws is required.

ii. **Action-Specific:** Examples of action-specific laws include requirements for obtaining local permits to excavate and/or dispose of contaminated soil, stormwater construction permits, or the requirement to notify local law enforcement in case human remains are discovered during excavation. All MTCA cleanups require evaluation of action-specific applicable state and federal laws.

iii. **Location-Specific:** Examples of location-specific laws include specific requirements for working near wetlands or archeologically important areas. All MTCA cleanups require evaluation of location-specific applicable state and federal laws.

After you have identified appropriate applicable local, state, and federal laws, report to Ecology the applicable local, state, and federal laws applicable to this cleanup, and how those laws and regulations specifically effect the proposed cleanup.

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[38] https://apps.leg.wa.gov/wac/default.aspx?cite=173-340-700
[39] https://apps.oria.wa.gov/opas/index.asp
[40] WAC 173-340-710(1)
[41] WAC 173-340-710(2)
[42] Note – MTCA Method A includes ARARs and concentration-based tables (WAC 173-340-700(5)(a)) If MTCA Method A remains in use as proposed Site cleanup levels, identify non-concentration based technical and procedural requirements. If Method B or C cleanup levels are proposed, also include concentration-based requirements.

3. Selection of Cleanup Action.

Ecology has determined the cleanup action you selected for the Site may meet the substantive requirements of MTCA.

Ecology requires additional reporting and additional efforts in establishing cleanup standards before it can make a final determination on the cleanup action.

Limitations of the Opinion

1. Opinion Does Not Settle Liability with the State.

Liable persons are strictly liable, jointly and severally, for all remedial action costs and for all natural resource damages resulting from the release or releases of hazardous substances at the Site. This opinion **does not**:

- Resolve or alter a person's liability to the state.
- Protect liable persons from contribution claims by third parties.

To settle liability with the state and obtain protection from contribution claims, a person must enter into a consent decree with Ecology under RCW 70.105D.040(4).

2. Opinion Does Not Constitute a Determination of Substantial Equivalence.

To recover remedial action costs from other liable persons under MTCA, one must demonstrate that the action is the substantial equivalent of an Ecology-conducted or Ecology-supervised action. This opinion does not determine whether the action you performed is substantially equivalent. Courts make that determination.
See RCW 70.105D.080 and WAC 173-340-545.

3. State is Immune from Liability.

The state, Ecology, and its officers and employees are immune from all liability, and no cause of action of any nature may arise from any act or omission in providing this opinion.
See RCW 70.105D.180.

Contact Information

Thank you for choosing to clean up the Site under the VCP. After you have addressed our concerns, you may request another review of your cleanup. Please do not hesitate to request additional services as your cleanup progresses. We look forward to working with you.

For more information about the VCP and the cleanup process, please visit our Voluntary Cleanup Program web site.[43] If you have any questions about this opinion, please contact me at (360) 584-6212 or aaren.fiedler@ecy.wa.gov.

Sincerely,

Aaren Fiedler
Toxics Cleanup Program
Southwest Regional Office

AFF/tam

Enclosure (1): Site Description

cc by email: LeeAnn McNulty, Mason Transit Authority, lmcnulty@masontransit.org
Sarah Fees, Landau Associates, sfees@landauinc.com
Nicholas Acklam, Ecology, nicholas.acklam@ecy.wa.gov
David Mora, Ecology, david.mora@ecy.wa.gov
Carol Serdar, carol.serdar@ecy.wa.gov
Ecology Site File

[43] https://www.ecy.wa.gov/vcp

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Enclosure

Description of the Site

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Site Description

The Site known as Mason County Public Trans Site is located north of the intersection of W Railroad Ave and S 6th St in Shelton, Mason County, Washington. The Site is located in a commercial area of the City of Shelton that transitions to mixed commercial and residential to the north, west, and south of the Site, and commercial/industrial to the east.

The Site is comprised of two parcels, 320196503905 (3905), and 320196503005 (3005). Parcel 3905 has a building located in its southwest corner. The remainder of parcel 3905 and the entirety of parcel 3005 are used as a gravel parking lot and storage area. The building on parcel 3905 is used by the United Way of Mason County as administrative offices. Adjacent to the Site on the west is a hotel and restaurant. North of the Site, across a city alleyway, are the Mason County Transit Community center and a movie theater. Adjacent to the Site on the east is a Century Link Cable/Internet provider building. Across W Railroad Ave from the Site are a Credit Union (east of 6th St) and a Mortgage provider (west of 6th St).

The source or sources of the contamination have not been specifically determined other than coming from historical property uses and imported fill material. Historical property uses have been identified as a materials staging, storage, and loading area for the Simpson Timber Company and a historical railroad that ran adjacent to the property. From the limited sampling conducted as part of the 2017 Phase II Environmental Site Assessment, oil range petroleum hydrocarbons (TPH-O), barium, chromium, and lead are present at the Site. The extent of the contamination has not been defined horizontally or vertically in soil and it has not been determined if groundwater has been affected.

MTC’s boring logs report the Site geology as consisting of various sands, silts, and gravels down to a depth of 10 feet with fill material located at shallow depths (0 to 3 feet below ground surface [bgs]). Depth to groundwater was reported at approximately 10 feet to 12 feet bgs. The Site specific groundwater flow direction has not been determined. Shelton Creek is located approximately 340 feet north of the Site. Goldsborough Creek is located approximately 900 feet south of the Site. Oakland Bay is located approximately 0.7 miles east of the Site.