



Electronic Copy

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

*Northwest Regional Office • 3190 160th Avenue SE • Bellevue, WA 98008-5452 • 425-649-7000
711 for Washington Relay Service • Persons with a speech disability can call 877-833-6341*

August 18, 2020

Mark Dagel
Hart Crowser, Inc.
3131 Elliott Ave, Suite 600
Seattle, WA 98121
mark.dagel@hartcrowser.com

**Re: Ecology Review Comments on Draft Remedial Investigation Report
Seattle DOT Mercer Parcels Site, 800 Mercer Street, Seattle, WA**

- **Facility/Site No. 27913**
- **Cleanup Site ID 14784**
- **VCP Project No. NW3258**

Dear Mark Dagel:

The Department of Ecology (Ecology) has reviewed the July 2, 2020 Draft Remedial Investigation (RI) report submitted for the Seattle DOT Mercer Parcels Site (Site). This correspondence provides our comments and revisions needed on the RI report to meet the requirements of the Model Toxics Control Act (MTCA).

Enclosed is a table summarizing Ecology's comments. The most notable general comments are listed below:

- The RI report lacks sufficient detail to define the nature and extent of the contamination at the Site.
- The RI appears to have a strong focus on nearby sites. The focus of this RI should be the Seattle DOT Mercer Parcels. While Ecology understands that the American Linen Supply Co Dexter Ave site groundwater contamination has impacted the groundwater beneath the 800 Mercer property, it is necessary to demonstrate that contamination from previous uses within the 800 Mercer property is not comingled with the American Linen Supply Co Dexter Ave groundwater contamination. This demonstration needs to be clear and empirical, even if using information or data collected for other properties. All of the available information at the Site and its vicinity should be presented; not only selected data that helps support an argument. This includes soil and groundwater data collected over many sampling events.

- The screening levels used in this RI are not supported by an adequate conceptual site model. While it is appropriate to refer to the American Linen Supply Co Dexter Ave site screening levels for the chlorinated solvent plume in the cases where the contamination is expected and demonstrated to be associated to that site; it is not appropriate to use petroleum screening levels for other contaminants that are not associated with the chlorinated solvent plume.
- A conceptual site model needs to be developed for the Site that describes the sources of contamination, impacted media, transport pathways and mechanisms, and potential receptors. Section 7.0 currently contains a lot of this information, but needs to be restructured. Based on this conceptual site model, the potential exposure pathways and receptors are selected, and a screening level protective of the most sensitive population and exposure pathway is used. This must be presented prior to screening the data.

Lastly, Ecology would like to address the schedule provided in the Prospective Purchaser Consent Decree (PPCD) request in October 2019. A copy of that schedule is below and a third column has been added with our comments for documentation purposes.

Activity	Proposed Timeframe	Actual Timeframe and/or Comments
Formal Submission for PPCDs and Initiation of Negotiations	October 15, 2019	
Development of RI	October 2019 – April 2020	VCP application requested in October 2019 - received January 23, 2020.
Submittal of Draft RI to Ecology	May 2020	July 2, 2020
Ecology Review of Draft RI	May 2020	July – August 2020
Revisions to Draft RI	May 2020 – June 2020	---delayed---
Submittal of Final RI to Ecology	July 2020	Not ready – significant revisions needed
Development of FFS/CAP	January 2020 – June 2020	
Submittal of Draft FFS/CAP to Ecology	July 2020	Not received as of August 18, 2020
Ecology Review of Draft FFS/CAP	July 2020	Not received as of August 18, 2020
Negotiations for PPCD	May 2020 – August 2020	Currently with attorneys
Development of Public Participation Plan and SEPA Notice	May 2020 – August 2020	Ecology to prepare the Public Participation Plan. The SEPA environmental checklist has not yet been received.
Revisions to Draft FFS/CAP	August 2020	Draft FFS/CAP have not been received by Ecology
Finalize FFS/CAP	September 2020	Draft FFS/CAP have not been received by Ecology.

Public Notice (including Public Hearing if necessary) and Responsiveness Summary	September 2020 – October 2020	The documents for public review (RI, FFS, Draft CAP, PPCD, SEPA checklist and determination notice, and Public Participation Plan) will not be ready for this proposed time period due to delays in the receipt of technical documents from Hart Crowser
Finalize PPCDs and Exhibits	October 2020	
Lodging of Proposed PPCDs in Superior Court	November 1, 2020	
Initiation of Site Redevelopment, including Implementation of Remedial Action as provided in FFS/CAP	TBD	
Groundwater Monitoring	As Required	

Please note that negotiating the revisions to the technical documents requested by Ecology will result in additional schedule delays. We encourage that you follow available guidance to complete a remedial investigation, feasibility study, and cleanup action plan (such as Ecology's RI, FS, and CAP checklists), as well as the requirements in MTCA (WAC 173-340-350 through 173-340-390) to ensure shorter review period and less revisions.

Ecology appreciates the effort that your team has put into the draft RI report and encourages you to contact us if you have further questions regarding our expectations on an RI. We look forward to continuing to work with you on this project. If you have questions please contact me at by phone at (425) 457-3143 or by email at tena.seeds@ecy.wa.gov.

Sincerely,



Tena Seeds
Cleanup Project Manager
Toxics Cleanup Program, NWRO

ecc: Maggie Cappelle, mcapelle@are.com
Ken Lederman, ken.lederman@foster.com
Allyson Bazan, Allyson.Bazan@atg.wa.gov
Tamara Cardona-Marek, tamara.cardona-marek@ecy.wa.gov
Robert Warren, bob.warren@ecy.wa.gov

Agency Review Comments

Document: *Draft Remedial Investigation* report (Hart Crowser, July 2, 2020)

Comment Date: August 18, 2020

Site: Seattle DOT Mercer Parcels, 800 Mercer St, Seattle, WA

FSID 27913, CSID 14784, VCP Project No. NW3258

Section and Paragraph	Page No.	Review Comment
GENERAL COMMENTS		
<p>The current draft of this document does not provide enough detail within the text and relies too heavily on information within the attachments (tables, figures, appendices). As such, it is difficult to follow and there are too many points where the reader has to search for information in other places. Please note that this document is subject to public review and will need to present a clear story of the Property—the text should contain enough information and details to clearly tell that story while the tables, figures, and appendices provide information to support the text. The comments provided in this table are intended to make the Remedial Investigation (RI) report easier to read and to understand what was done, who did what, when, and how, and what the results mean for characterization of the Seattle DOT Mercer Parcels site (Site).</p>		
<p>Please remove references to “Broad Block”. Use only Ecology’s listed Site name “Seattle DOT Mercer Parcels” when identifying the Site on text, tables, figures, appendices. “Property” should only be used when referring to the Property itself (located at 800 Mercer Ave) and not the Site.</p>		
<p>Do not use “BMR-Dexter” nor “BMR-D” to refer to the American Linen site. Please use the name as listed by Ecology (American Linen Supply Co Dexter Ave), you can shorten to “American Linen” to refer to that site.</p>		
<p>Analytical methods are missing from this document. Please specify in the text (4.2.1.3, 4.2.2.3), tables (4-3, 4-4, 6-4, 6-5), and Appendix B (Tables B1 and B2) which analytical methods were used to analyze the soil and groundwater samples (e.g., EPA Method 8260C, NWTPH-Gx, etc.)</p>		
<p>Please provide copies of all applicable sampling field notes/forms in an Appendix.</p>		
<p>Insert a section to summarize the analytical results for the soil and groundwater samples from the current (2019/2020) investigation. This should be presented either as a subsection at the end of Section 4.2 or as individual subsections for soil characterization (under 4.2.1) and groundwater characterization (under 4.2.2). Alternatively, this could be presented as a new Section following Section 4.</p> <p>The discussion should summarize the concentration ranges for each of the compounds analyzed without comparison to any cleanup levels or screening levels. You can have an introductory sentence for each medium that says something like “The compounds that were detected in the RI [soil or groundwater] samples are summarized below...” and then list bullet summaries for each of the detected compounds, including concentration range, sample IDs for the ones that contained the detectable concentrations, and which one had the highest concentration and when it was detected (since this RI work spanned 2019 and 2020).</p>		
<p>The text of Appendix D should be incorporated into the main text of the report (in Section 5.2) instead of having it in two places. The tables in Appendix D should also be incorporated into (or included with) the main report tables for Section 5 (a couple of them appear to have duplicate info already). Reserve Appendix D for containing raw testing data, graphs, and other supporting information.</p>		
<p>The information in Section 6.0 (identification of COCs and their nature and extent) should be presented after the Conceptual Site Model (see specific comments below).</p>		
<p>A Conceptual Site Model is needed before screening levels are selected. The data cannot be screened until after the potential exposure pathways are identified and adequate levels, protective of those pathways, are selected.</p>		
<p>Select one set of screening levels for each contaminant. If enough evidence showing that the CVOCs are only associated with the American Linen plume, then the screening levels used for the American Linen Site for the CVOCs are applicable. Cleanup levels for other compounds will need to be selected based on the exposure pathways determined to be complete for the SDOT Mercer Parcels Site.</p>		

Agency Review Comments

Document: *Draft Remedial Investigation* report (Hart Crowser, July 2, 2020)

Comment Date: August 18, 2020

Site: Seattle DOT Mercer Parcels, 800 Mercer St, Seattle, WA

FSID 27913, CSID 14784, VCP Project No. NW3258

Section and Paragraph	Page No.	Review Comment
<p>More discussion is needed to support your conclusion that all of the CVOCs in groundwater on the Property are associated with the American Linen plume and that the elevated impacts within the southwestern portion of the Property are not from historical releases on the Property (like the paint business that may have used/released chlorinated solvents in that area).</p> <ul style="list-style-type: none"> - Include information about the compounds that would have been in the solvents used at the paint businesses – did they contain PCE? - Include more information on the Mercer Tunnel sewer line that runs through the former Broad St alignment – when was it constructed? Is it one of the old brick lined structures? Could it be a potential migration pathway? - Does the degradation of the CVOCs in that area correspond to releases from the American Linen Site, or could they be from a separate, unrelated release that could have occurred on the Property (but shallow evidence in soil has been removed due to physical disturbance during modifications of the Property)? 		
SPECIFIC COMMENTS – TEXT		
Section 1.0, 3 rd paragraph	1	Purpose of the RI should be in accordance with MTCA, which includes the sufficient collection of data to select a cleanup action. Distinguishing contamination that originated from historical uses at the Property from contamination that originated from off-site sources should not be the objective of an RI; it can be a result, after the RI is complete but not the purpose.
Section 2.0	1	Change the name of Section 2.0 to “General Facility Information and Property Description” and add summary information to provide context for later sections regarding the different hydrogeologic zones that are present; introduce the shallow, IA, IB, and deep zones and their corresponding depths/elevations; refer the reader to Section 5.0 for more details. If referencing others’ interpretation of these zones in this summary, you will need to provide Hart Crowser’s justification for using the same interpretation or explain why yours differs from theirs.
Section 2, 2 nd paragraph	1	The year associated with the North American Vertical Datum reference is incorrectly shown as 1998; should be changed to 1988.
Section 3.0, 3 rd paragraph	2	Change text as follows: “Operations on the Property and its vicinity judged expected to be the likeliest potential sources of contamination on the Property, as well as the American Linen Supply CO. Dexter Avenue Site (BMR-D Site), are listed below...”
Section 3.0, 3 rd paragraph, 1 st bullet	2	Move this bullet regarding the American Linen site to the end of the bullet list. Information regarding the SDOT Mercer Parcels Site should be listed first, then move to info regarding the neighboring properties.
Section 3.0, 3 rd paragraph, 3 rd bullet	2	Could solvents also have been released into the soil due to the centrally located auto repair station that operated ~1940-1955? If so, please add and list potential compounds associated with those solvents.
Section 3.0, 3 rd paragraph, 4 th bullet	2	Please add diesel and oil as compounds that may have been released from the historical auto wrecking businesses at the eastern portion of the property (based on the data at 21417-MB10 and HMW-11S).
Section 3.0, 3 rd paragraph, 5 th , 6 th , and 7 th bullets	3	Please list the potential compounds associated with the petroleum-based paint thinners and solvent-based paint strippers.

Agency Review Comments

Document: *Draft Remedial Investigation* report (Hart Crowser, July 2, 2020)

Comment Date: August 18, 2020

Site: Seattle DOT Mercer Parcels, 800 Mercer St, Seattle, WA

FSID 27913, CSID 14784, VCP Project No. NW3258

Section and Paragraph	Page No.	Review Comment
Section 3.0, 3 rd paragraph, 5 th bullet	3	PCBs were used in some specialty paints between 1950 and 1979, according to information available from EPA (https://www.epa.gov/sites/production/files/2016-03/documents/pcbs_in_building_materials_questions_and_answers.pdf); has soil been tested for PCBs in the areas of the former paint businesses?
Section 3.0, 3 rd paragraph	3	Consider other neighboring sites as potential contaminant sources: 601 and 615 Dexter to the west (historical gas station and laundry facilities), or the property to the east (Block 43/AIBS had petroleum releases)
Section 4.0	3	<p>Include a concise summary list of Contaminants of Potential Concern (COPCs) at the beginning of this section, based on the past uses and potential sources identified in Section 3.0.</p> <p>You could move/incorporate the info that is provided in the second paragraphs of Section 4.2.1.3 and Section 4.2.2.3 to this discussion.</p>
Section 4.0, 1 st paragraph	3	<p>Text indicates that investigations began in 1960; is that year correct? Table 4-1 indicates that the first investigation was March 1970-Feb 1971. Whatever starting year you state here should match the initial investigation date.</p> <p>Also, modify the text regarding presentation of relevant information, as follows:</p> <p>“A chronological list of the environmental investigations is provided in Table 4-1 and relevant information is presented below in Sections 4.1 and 4.2 and summarized in Table 4-1. The locations of relevant explorations relevant to this RI is are provided on Figure 4-1.”</p> <p>Please see specific comments regarding Table 4-1 (page 9 of this comments table).</p>
Section 4.1	4	<p>This section needs more information about each of the previous investigations. The public will be reviewing this document, so it needs to provide a clear understanding of what was done, when, why, and what was found in order to tell the story. It is important to distinguish that the previous investigations were during different timeframes and the property may have had a different configuration; as a result, their conclusions may have been different than what they would be now.</p> <p>Please add a summary paragraph (or bullet) for each of the investigations that includes the following information:</p> <ol style="list-style-type: none"> 1) Who performed the work and type/purpose of investigation 2) Which contaminated site was the focus of the investigation 3) Date(s) of the work performed 4) Number of explorations and <u>their IDs</u>, with explanation of which ones are relevant to investigation of the SDOT Mercer Parcels Site (if not all explorations) 5) Number of soil and groundwater samples collected/analyzed, of which XX are relevant to the SDOT Mercer Parcels Site (if not all samples) 6) Brief summary of findings related to contaminants detected in soil and groundwater on/near the Property, their associated concentration ranges, and any other pertinent conclusions 7) Reference to the original report that documented the investigation. <p>Direct the reader to the cited documents for additional details and refer to Appendix A2 for copies of the boring logs, Appendix B for a summary of the data collected, and Appendix C2 for copies of the lab reports.</p>

Agency Review Comments

Document: *Draft Remedial Investigation* report (Hart Crowser, July 2, 2020)

Comment Date: August 18, 2020

Site: Seattle DOT Mercer Parcels, 800 Mercer St, Seattle, WA

FSID 27913, CSID 14784, VCP Project No. NW3258

Section and Paragraph	Page No.	Review Comment
Section 4.2.1.1, 1 st paragraph	4	Explain the reason why the different drilling methods were used. Can either explain in this introductory paragraph or insert in description of each of the technologies (paragraphs 3, 4, and 5).
Section 4.2.1.3, 1 st paragraph	6	Please list the soil analytical methods.
Section 4.2.1.3, 2 nd paragraph	6	This information can be moved up to an earlier discussion of COPCs (see previous comment regarding Section 4.0).
Section 4.2.2.1, 4 th paragraph	7	Please include information on when the wells were developed (i.e., date range for the 2019 wells and date range for the 2020 wells).
Section 4.2.2.2, 1 st paragraph	7	Explain how you selected where to collect grab groundwater samples vs regular well samples, and how the results may differ between the two types of samples.
Section 4.2.2.2, 2 nd paragraph	7	Please include the dates that the grab samples were collected (i.e., date range for the 2019 grab samples and date range for the 2020 grab samples). Did collection of grab groundwater samples occur at least 12 hours after the temporary wells were installed and were they purged to reduce turbidity in the samples, as stipulated in the sampling and analysis plan?
Section 4.2.2.2, 2 nd paragraph	7	The text indicates that bailers may have been used to collect grab samples. Use of a bailer was not part of the sampling and analysis plan; please include details about which locations required the use of a bailer instead of the low-flow pumping equipment. State that bailer sampling is a deviation from the sampling and analysis plan.
Section 4.2.2.2, 5 th paragraph	8	The observations described in this paragraph (odors, sheen) are not necessary to include in the text. I'm assuming those were recorded in the field notes/forms, which should be provided in an Appendix.
Section 4.2.2.3, 1 st paragraph	8	Please list the groundwater analytical methods.
Section 4.2.2.3, 2 nd paragraph	8	This information can be moved up to an earlier discussion of COPCs (see previous comment regarding Section 4.0).
Section 4.2.3.2, 1 st paragraph	9	Please provide more detail on how many wells were used for the groundwater level measurements and which ones were included. Consider the following for suggested modifications to this text: "Groundwater elevation was measured in [TOTAL # OF WELLS] selected monitoring wells on and adjacent to the Property (Table 5-2). These included:
		<ul style="list-style-type: none"> • 11 wells screened in the shallow zone (Property wells HMW-1S, HMW-2S, HMW-9S, HMW-10S, and HMW-11S and off-Property wells DMW-1S, DMW-2S, DMW-4s, MW-154, MW-155, and MW-305); • [##] wells screened in the upper intermediate (Intermediate A) zone (Property wells [WELL IDs] and off-Property wells [WELL IDs]); • [##] wells screened in the lower intermediate (Intermediate B) zone (Property wells [WELL IDs] and off-Property wells [WELL IDs]); and • [##] wells screened in the deeper zone (Property wells [WELL IDs] and off-Property wells [WELL IDs]).

Agency Review Comments**Document:** *Draft Remedial Investigation* report (Hart Crowser, July 2, 2020)**Comment Date:** August 18, 2020**Site:** Seattle DOT Mercer Parcels, 800 Mercer St, Seattle, WA**FSID 27913, CSID 14784, VCP Project No. NW3258**

Section and Paragraph	Page No.	Review Comment
Section 4.2.3.2, 1 st paragraph	9	Measurements were taken in how many wells during the short synoptic events? “Many” is not specific enough. Regarding the various additional measurements collected throughout 2019 and 2020, what was their purpose?
Section 4.2.3.2, 2 nd paragraph	9	Please include a brief section on the wellhead survey work that was performed after the well installation and development details (either as a paragraph at the end of 4.2.2.1 and rename section to “Monitoring Well Installation, Development, and Survey” or as a new section 4.2.2.2 “Wellhead Survey”). Include dates, who performed the survey, horizontal datum information, vertical datum information, and any other pertinent details. Present the survey data in an Appendix.
Section 5.1, 1 st paragraph	10	Consider also referencing the boring logs in in Appendix A to the reader for more information regarding lithology.
Section 5.1, 3 rd paragraph	10	Please show the former Broad Street alignment area(s) on the cross section figures and provide reference here. It would be useful to see the current and previous stratigraphy in those areas.
Section 5.2, 1 st and 2 nd paragraphs	11/12	Does Hart Crowser agree with the water-bearing zones/descriptions that were previously named by SES? Does your investigation match theirs? Why or why not? Also, the information in Appendix D states that the Intermediate B and deep zones are likely to be confined. As noted in the general comments above, this information needs to be included in the main report text. Please explain what impacts this has on fate and transport of contaminants.
Section 5.2, 4 th paragraph	12	Do any of the data indicate that groundwater elevations may be impacted by the permanent drainage systems of some buildings in the area?
Section 5.2.2, 1 st paragraph	12	This paragraph is a repeat of what was already explained in Section 4.2.3.2. Consider removing since it is redundant.
Section 5.2.2, 2 nd paragraph	13	Regarding the reference to “co-located monitoring wells” – are you referring to the wells that are next to each other and screened in different zones? This isn’t quite clear. Please provide additional explanation or modify text to be clearer.
Section 5.2.2, 2 nd paragraph	13	The last sentence in this paragraph is confusing and appears to conflict with the data table (Table 5-2). HMW-2S decreased in elevation by 0.84 ft from March 2020 to May 2020 and 4.14 ft overall from March 2019 to May 2020; MW-146 decreased in elevation by only 0.24 ft from March 2020 to May 2020 and 12.78 ft overall from March 2019 to May 2020. Other wells have less than 0.8 decrease between events. How do the wells in the different zones differ with these trends? Are there differences? If so, discuss why more or less decreasing in one zone vs another.
Section 5.2.2, 3 rd paragraph	13	Why are the horizontal hydraulic gradients only discussed for the intermediate and deep zones, but not for the shallow zone? Please include hydraulic gradient for shallow zone in this discussion. Also discuss how the upper and lower intermediate zones differ – more discussion is needed about hydraulic gradient in the different zones.

Agency Review Comments

Document: Draft Remedial Investigation report (Hart Crowser, July 2, 2020)

Comment Date: August 18, 2020

Site: Seattle DOT Mercer Parcels, 800 Mercer St, Seattle, WA

FSID 27913, CSID 14784, VCP Project No. NW3258

Section and Paragraph	Page No.	Review Comment
Section 5.2.2, 4 th paragraph	13	<p>Please include the number of well pairs that were used in evaluating vertical hydraulic gradients (looks like there were 11 pairs).</p> <p>Also, take out the word “nested” – this term implies multiple wells within a single borehole, which I don’t believe is true for this site. In fact, I don’t believe nested wells are allowed in WA anymore. Change ‘nested’ to ‘shallow and deep’ with a footnote to indicate that this means the pairs consisted of either a shallow zone well and a deep zone well, a shallow zone well and intermediate zone well, or an intermediate zone well and a deep zone well.</p>
Section 5.2.2, 4 th paragraph	13	<p>You state that groundwater flow is generally downward as indicated by “positive gradient values”, however the range shows a negative value (-0.003). Please clarify as “mostly positive gradient values” and provide some additional information about the 3 instances of the 25 vertical gradients calculated where gradient was negative, identifying those locations and dates, and other information interpreting why those occurred. Could they have been affected by nearby dewatering activities southeast of the Property (City Investors’ Block 38 West project) that began in January 2020 since they all appear to be on the east side of the property?</p>
Section 5.2.3, 1 st and 2 nd paragraphs	13	<p>Text is a little confusing. Suggested revisions:</p> <p><i>“As noted in Section 4.2.3.3, Ppressure transducers were deployed at the bottom of several eight wells (HMW-1IB, HMW-1D, HMW-2IA, HMW-2IB, HMW-2D, HMW-3IA, HMW-3D, and HMW-4IA) from March 2019 through March 2020* to automatically monitor long-term changes in groundwater elevation.</i></p> <p><i>The Ggroundwater elevations for these wells are illustrated in the plots shown in Figure 5-3 for eight wells (HMW 1IB, HMW 1D, HMW 2IA, HMW 2IB, HMW 2D, HMW 3IA, HMW 3D, and HMW 4IA) from March 2019 to March 2020, except well HMW 3IA which shows July 2019 through March 2020.”</i></p> <p>*Add a footnote for the dates shown in the first paragraph indicating that HMW-3IA did not begin monitoring until July 2019 and explain why (was it not installed yet? Did the transducer malfunction? Was it added after the others to provide more locational coverage?)</p>
Section 5.2.3, 4 th paragraph	14	<p>Please provide more information, including similar hydrographs for other deep wells, to further support the claim that deep groundwater is tidally influenced. Basing it on one well is not enough.</p>
Section 6	14	<p>As noted in the general comments, <u>this section needs to be moved down, after the Conceptual Site Model is discussed. Discuss screening levels first, then COCs.</u></p> <ul style="list-style-type: none"> - Use one set of screening levels for soil and one set for groundwater that are chosen based on the pathways and receptors identified in the CSM; develop only one SL for each compound instead of using the two and based them off of the most conservative value for the exposure pathways. - The American Linen SLs are based on Method B and on the exposure pathways that are present throughout that Site. The lower values for some of them are based on additive effects due to comingling of compounds. You will need to determine if this is appropriate for the petroleum compounds for the SDOT Mercer Parcels Site based on their distribution and exposure pathways. It is appropriate to apply the CVOCs screening levels from the American Linen site if you can show that there are no other CVOC sources from the Property contributing to the plume.

Agency Review Comments**Document:** *Draft Remedial Investigation* report (Hart Crowser, July 2, 2020)**Comment Date:** August 18, 2020**Site:** Seattle DOT Mercer Parcels, 800 Mercer St, Seattle, WA**FSID 27913, CSID 14784, VCP Project No. NW3258**

Section and Paragraph	Page No.	Review Comment
Section 6	14	<ul style="list-style-type: none">- Include concentrations and their associated dates when discussing the nature and extent of COCs in both soil and groundwater; current summaries are too vague and do not provide enough detail. Dates are important for providing context to the reader.- When summarizing the COCs in the text, list them by medium instead of by type of compound (COCs identified for soil, then COCs identified for groundwater); please include all of the ones shown in Table 6-3.- After listing the COCs for soil and groundwater, then discuss any compounds that should be considered primary COCs vs others and explain why.
Section 6.2.1, 2 nd bullet	17	There are noticeable data gaps regarding the lateral extents of cPAHs to the west, southwest, and south of HMW-7IB. You need to discuss this. Additional sampling will be necessary to define the extents of cPAHs in this area and whether they extend off-Property into the right-of-way. You will need to understand this in order to determine how any off-Property contamination will be addressed in the FS alternatives and as part of the cleanup action.
Section 6.2.2	17	There is another lead exceedance in soil to the east at location 21417-MB9, which had lead at 279 mg/kg (22 ft bgs, 16 ft elev.). That was in the area of the former auto wrecking business. Need to include that in the discussion for lead and show that on the figure. Arsenic and other metals need to be discussed in this section too.
(Proposed sub-section under 6.2)		Include a discussion of CVOCs and whether the soil data illustrate that there are no releases from the Property. There is some question about whether they may have been present in soil at one time, particularly in the area of/near the former Broad Street alignment where Figure 3.1 shows the former 1950s-era painting stores on the southwestern portion of the Property.
Section 6.3.1, 1 st bullet	17	The extent of benzene in the NW corner is not bounded to the south and west. Please discuss and propose additional sampling to define the western and southern extents of benzene in groundwater and determine if it extends off-Property into the right-of-way. This is important to determine how any off-Property contamination will be addressed in the FS and CAP.
Section 6.3.1, 2 nd bullet	18	The extent of GRO in the IA zone are not defined. Please discuss and propose additional sampling to define extents both on and off-Property. Also, the data tables indicate that MW-146 was last sampled in October 2019, which was when the exceedance was detected. GRO was much lower during previous events. Has this well been sampled since last October?
Section 6.3.1, 3 rd bullet	18	The exceedance of oil at location 21417-MB10 is not bounded to the east. Please discuss and propose additional sampling to define the eastern extent of oil in shallow groundwater and determine if it extends off-Property into the right-of-way. This is important to determine how any off-Property contamination will be addressed in the FS and CAP.
Section 6.3.2, 1 st paragraph	18	A lot of this data is from grab samples. Explain how these samples are different from monitoring well samples and how the results may be affected. Figures should be showing each groundwater bearing zone individually; not all other wells. Also; include sampling dates as all samples were likely not collected on the same date.

Agency Review Comments

Document: *Draft Remedial Investigation* report (Hart Crowser, July 2, 2020)

Comment Date: August 18, 2020

Site: Seattle DOT Mercer Parcels, 800 Mercer St, Seattle, WA

FSID 27913, CSID 14784, VCP Project No. NW3258

Section and Paragraph	Page No.	Review Comment
Section 6.3.2, 2 nd paragraph	18	Please indicate how many of the shallow groundwater samples were grab samples. Also explain when they were sampled since conditions can change over time and can help tell the story of CVOC degradation.
Section 6.3.2, 3 rd & 4 th paragraphs	18	Discuss the dates that the wells were sampled to provide some context regarding possible degradation of CVOCs over time. For example, MW-114 was last sampled in 2013, so the data shown for that well may not be representative of current conditions and may not be comparable to nearby wells.
Section 6.3.2, 5 th paragraph	18	How was your conclusion in the last sentence of this paragraph determined? What data were evaluated to support this? Please provide more discussion of the data before concluding that there is no contribution of CVOCs from prior operations on the Property. Particularly since much of the soils within the SW quadrant have been reworked or possibly removed at one point and there are significantly elevated concentrations of CVOCs in close proximity to the former paint businesses (HMW-9IB).
Section 6.3.3, 3 rd bullet	19	Regarding mobilization of natural arsenic in the aquifer caused by reducing conditions from bioremediation injections at the American Linen site-- has this been shown to occur in wells closer to the American Linen plume? Has there been sufficient travel time to impact all of the wells? Some of the wells seem to be outside of the area believed to be impacted by the plume. Unless you can be specific and explain which wells this would apply to, the argument does not seem to be sufficiently supported.
Section 7	19	Change title of this section to Conceptual Site Model. Remove all discussion of cleanup objectives/goals and CULs; this information should be presented in the FS and CAP documents and not the RI. Discuss only the elements of the CSM—release sources, transport mechanisms, exposure pathways, potential receptors, and any other specific concerns or property-related issues pertaining to things like hydrogeology, current and future zoning and land uses, etc.
Section 7.1.1, 2 nd paragraph	20	Avoid using qualitative adjectives like “a few” to minimize the contamination. Revise to be more direct: “...observed in monitoring wells MBB-2 through MBB-4, HMW-3IA...”, “...occurrence of groundwater impacts in discrete areas...”
Section 7.1.1, 2 nd paragraph	20	Is there evidence of natural attenuation processes limiting the migration of contaminants? If so, please provide more information to support this.
Section 7.1.1, 5 th paragraph	21	A short section or paragraph needs to be inserted into the text (rather than a brief footnote) to discuss the TEE and explain the exemption and its justification. If you use the TEE form to support this discussion, please provide a copy of it in an Appendix and perhaps move Figure 7-2 into that.
Section 7.1.2, 2 nd paragraph	22	Please indicate where the statements regarding interpretation of DNAPL migration and accumulation (2 nd & 3 rd sentences) are from and whether you have sufficient information to support this. This appears to be an interpretation that is not from the PES 2019 reference.
Section 7.1.2, 3 rd paragraph	22	Please cite source documents for the information regarding DNAPL removal by American Linen interim actions and other DNAPL accumulations remaining as on-going sources. Unless you have sufficient data to support this, your statement appears to be unsupported.
Section 7.1.2, 4 th & 5 th paragraphs	22	The discussion in these paragraphs are about the American Linen site. Make your own conclusions and determinations about the Seattle DOT Mercer Parcels Site since this RI is about the Seattle DOT Mercer Parcels Site.

Agency Review Comments

Document: *Draft Remedial Investigation* report (Hart Crowser, July 2, 2020)

Comment Date: August 18, 2020

Site: Seattle DOT Mercer Parcels, 800 Mercer St, Seattle, WA

FSID 27913, CSID 14784, VCP Project No. NW3258

Section and Paragraph	Page No.	Review Comment
Section 8, 1 st paragraph	24	Environmental conditions have not been fully characterized. Additional sampling will be necessary to define the extents of COCs in some areas. Please address this in your conclusions.
Section 8, 4 th paragraph	24	None of this is applicable here. This is a Seattle DOT Mercer Parcels RI, not an FS and not an American Linen document. Please remove this paragraph.

Figure/Table	Review Comment
SPECIFIC COMMENTS – TABLES	
Table 2-1	Remove “Broad Block” from the site name
Table 4-1	<p>Instead of providing this table, the information should be discussed in Sections 4.1 and 4.2 of the report. If you want to provide a summary table along with the text, please include more information in the columns like the total number of explorations and the sample location IDs associated with the investigation and the specific location IDs that are relevant to the RI for the Seattle DOT Mercer Parcels Site. Also cite the report reference -- some references are listed at the bottom of the table notes, but what rows in the table do they apply to? This would be clearer to the reader.</p> <p>Also, change “BMR-Dexter” to “American Linen” or the full site name for the American Linen Supply Co Dexter Ave site.</p>
Table 4-3 & Table 4-4	<p>Add acronym definitions to the notes.</p> <p>List the analytical methods that were used to analyze the compounds shown.</p> <p>Change “Broad Block Property” in the notes to “Seattle DOT Mercer Parcels Site”.</p> <p>Change “BMR-Dexter Site” in the notes to “American Linen Supply Co Dexter Ave Site”.</p>
Table 5-1	Reference the slug testing dates in the table notes.
Table 5-2	<p>Define “TOC” in the notes.</p> <p>Add footnotes explaining the vertical reference point for the elevations shown (i.e., relative to NAVD88), the reference point for the depth to groundwater (i.e., from top of casing), and how groundwater elevation was calculated (i.e., TOC elevation - DTW measurement). –these will help public when reviewing the info in the table.</p> <p>Why are MW-147 and MW-148 shown in the table twice (IB zone and deep zone)?</p> <p>MW-114 is listed but has no data; remove this well from the table.</p> <p>Various wells that are shown in this table and were measured in March 2020 and/or May 2020 are missing from the groundwater contour figures. See specific notes for Figures 5-2a and 5-2b.</p>
Table 6-1 & Table 6-2	<p>Use one set of screening levels soil (Table 6-1) and one set of screening levels for groundwater (Table 6-2). If you want to provide a separate table to illustrate how the screening levels were selected, then insert another table before these that lists the various cleanup levels for each compound and media, based on the methods applicable to the pathways and receptors, and selects the most conservative value.</p> <p>For the SLs that you include in these COC screening tables, include footnotes for each SL that indicates its basis (Method A, Method B cancer/non-cancer, etc). Any compound that was detected above its corresponding SL should be considered a COC.</p>

Agency Review Comments

Document: *Draft Remedial Investigation* report (Hart Crowser, July 2, 2020)

Comment Date: August 18, 2020

Site: Seattle DOT Mercer Parcels, 800 Mercer St, Seattle, WA

FSID 27913, CSID 14784, VCP Project No. NW3258

Figure/Table	Review Comment
Table 6-4	<p>Use one set of screening levels.</p> <p>Include results for all of the COCs that were identified for soil in Table 6-3.</p> <p>List the lab analytical methods that were used.</p>
Table 6-5	<p>Use one set of screening levels. (Refer to general comments above)</p> <p>Include results for all of the COCs that were identified for groundwater in Table 6-3.</p> <p>List the lab analytical methods that were used.</p> <p>The data shown for HMW-4IA appears to be for March 2019 (based on the lab report) but indicates March 2020 as the sample date. Also, the March 2020 results are missing from this table. Please check if there are other discrepancies. I only noticed this one because of the difference between what was shown on the data figures (6-2b, 6-2n, 6-3g) vs the table.</p>
Table 7-1	Remove this table. This information should go in the FS.
SPECIFIC COMMENTS – FIGURES	
Figure 1-1	Change “Broad Block Site” to “Seattle DOT Mercer Parcels Site” in callout
Figure 2-1	<p>Change “Broad Block Site” to “Seattle DOT Mercer Parcels Site” at 800 Mercer St</p> <p>Remove “(BMR-D)” shown at 700 Dexter</p>
Figure 3-1	Change “BMR-D” to “American Linen Supply Co Dexter Ave Site”
Figure 4-1	<p>Show the former structures and former Broad St alignment relative to the sample locations.</p> <p>Remove “BMR-D”</p>
<p>Figure 5-1a</p> <p>Comments apply to all A-A’ cross section figures</p>	<p>Show the area of the former Broad St alignment.</p> <p>Include all well/boring locations along/near the cross section alignment; some locations appear to be missing (B-215, MW-114, HMW-5IB, HMW-9 wells, 21417-MB3, 21417-MB4, MW-118)</p> <p>Change “Broad Block Site” in the legend to “Seattle DOT Mercer Parcels Site”</p> <p>Change “BMR-D Site” in the legend to “American Linen Supply Co Dexter Ave Site”</p>
<p>Figure 5-1b</p> <p>Comments apply to all B-B’ cross section figures</p>	<p>Show the area of the former Broad St alignment.</p> <p>Include all well/boring locations along/near the cross section alignment; some locations appear to be missing (MW-105, HMW-2S, MBPP-4, 21417-MB7, MW-315)</p> <p>Change “Broad Block Site” in the legend to “Seattle DOT Mercer Parcels Site”</p>
<p>Figure 5-1c</p> <p>Comments apply to all C-C’ cross section figures</p>	<p>Show the area of the former Broad St alignment.</p> <p>Include all well/boring locations along/near the cross section alignment; one location appears to be missing (21417-MB11)</p> <p>Change “Broad Block Site” in the legend to “Seattle DOT Mercer Parcels Site”</p>
<p>Figure 5-1d</p> <p>Comments apply to all D-D’ cross section figures</p>	<p>Show the area of the former Broad St alignment.</p> <p>Include all well/boring locations along/near the cross section alignment; some locations appear to be missing (MBB-2, MW-106?, MBB-6, MBB-8, HMW-2S, HMW-2D, 21417-MB9, MBB-13, HMW-1S)</p> <p>Change “Broad Block Site” in the legend to “Seattle DOT Mercer Parcels Site”</p>

Agency Review Comments

Document: *Draft Remedial Investigation* report (Hart Crowser, July 2, 2020)

Comment Date: August 18, 2020

Site: Seattle DOT Mercer Parcels, 800 Mercer St, Seattle, WA

FSID 27913, CSID 14784, VCP Project No. NW3258

Figure/Table	Review Comment
<p>Figure 5-1e</p> <p>Comments apply to all E-E' cross section figures</p>	<p>Show the area of the former Broad St alignment.</p> <p>Include all well/boring locations along/near the cross section alignment; some locations appear to be missing (21417-MB3, MBPP-8?, 21417-MB4, MW-316, MW-315, B-434, MW-325?, MW-326?, 21417-MB11)</p> <p>Change "Broad Block Site" in the legend to "Seattle DOT Mercer Parcels Site"</p>
<p>Figures 5-2a and 5-2b</p>	<p>The groundwater contour maps are missing wells and elevations for some wells for the March and May 2020 events; please add and include elevations in interpolation of contours:</p> <ul style="list-style-type: none"> • The maps for the IA zone are missing BB-8 (May only; no data for March), DMW-3IA, DMW-5IA, DMW-6, HC-4, and MW-306 • The maps for the IB zone are missing MW-307 • The May 2020 map for the deep zone are missing FMW-129 and MW-105 (no data for March according to the table) <p>Why are HMW-4IA and HMW-8IB not included in contouring (per the Notes on both figures)?</p> <p>If there are other wells measured during that time period in the vicinity of the Seattle DOT Mercer Parcels, please include them also.</p>
<p>Figures 6-1a through 6-1c</p>	<p>Why are these only for vadose zone soil? Since you don't have other maps to show lateral distribution of COCs in the deeper zones, you should include data for all locations containing a COC exceeding the SL even if deeper than the vadose zone. If you want to split the data into two sets of maps (one set for vadose zone, the other for below the water table), that would be okay too. That would tell a more complete story of where things are located throughout the property instead of just select slices via the cross sections.</p> <p>Add the sampling date to the data boxes.</p> <p>Add corresponding sample elevations to the data boxes.</p> <p>Compare data to only one set of screening levels instead of the two (red for above, green for below).</p> <p>Remove any sampling locations that are not relevant to the information illustrated on the map (locations with no data for the COCs).</p>
<p>Figures 6-2a through 6-2o</p>	<p>Revise per previous comments on Figure 5-1a through 5-1e.</p> <p>Add soil data for the soil sample locations with concentrations that exceed a screening level.</p> <p>Compare data to only one set of screening levels instead of the two (red for above, green for below).</p> <p>Add sampling date to the data boxes.</p>
<p>Figures 6-3a through 6-3l</p>	<p>Add the sampling date to the data boxes. This is especially helpful for understanding when the exceedance was observed for any wells that were not sampled during the more recent RI activities in 2019/2020.</p> <p>It may be helpful to also include the March 2019 RI data for the samples that have both 2019 and 2020 results where an exceedance occurred.</p> <p>Show only the wells with data for the hydrogeologic zone represented on the map (i.e., remove intermediate and deep wells from the shallow zone map, etc.).</p> <p>Compare data to only one set of screening levels instead of the two (red for above, green for below).</p> <p>Data boxes are missing from Figure 6-3h</p>

Agency Review Comments

Document: *Draft Remedial Investigation* report (Hart Crowser, July 2, 2020)

Comment Date: August 18, 2020

Site: Seattle DOT Mercer Parcels, 800 Mercer St, Seattle, WA

FSID 27913, CSID 14784, VCP Project No. NW3258

Figure/Table	Review Comment
Figure 6-4a	Add question marks along shaded area extents that are not bounded.
Figure 6-4b	Show the historical structures that had potentially used chlorinated solvents on the Property. Also show the sewer lines and other utility lines. Remove the CVOC plume shading. Be consistent with the other figures when using red or green shading – red for exceeding a screening level, green for no exceedances.