



STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

Northwest Regional Office • 3190 160th Ave SE • Bellevue, WA 98008-5452 • 425-649-7000  
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January 30, 2018

Mr. Paul Street  
BMC West Corporation  
9809 Hammond Drive NE, Suite 500  
Atlanta, GA 30328

**Re: Request for Additional Information to Provide Opinion on the Investigation and Cleanup under VCP for the following Contaminated Site:**

- **Site Name:** Henry Bacon Building Materials
- **Site Address:** 5210 E Lake Sammamish Pkwy SE, Issaquah, WA 98029
- **Cleanup Site ID:** 7791
- **Facility/Site ID:** 8428648
- **VCP Project ID:** NW3149

Dear Mr. Street:

Thank you for submitting the Remedial Investigation/ Feasibility Study and Remedial Action Report for review by the Department of Ecology (Ecology) under the Voluntary Cleanup Program (VCP). Based on a preliminary review, Ecology determined the report is incomplete. Additional information regarding the cleanup is needed. The enclosed Checklist identifies what additional information Ecology needs.

Ecology wants to provide you an opportunity to update and resubmit the report to include the additional information specified in the enclosed Checklist and any existing site characterization information available for the Site while you wait for a Site manager to be assigned. The Site's position on the VCP Wait List will remain the same. However, if an updated report is not received when a Site manager is assigned, the position in the Wait List cannot be guaranteed. By providing the requested information, Ecology can then provide a written opinion on the submitted reports.

When updating the report/s, please reference our report Template, available at <http://www.ecy.wa.gov/programs/tcp/policies/checklists.html>. Ecology developed both the Checklists and Template to provide clarity on our expectations for work plans and reports. We hope you find them useful.



Mr. Paul Street  
January 30, 2018  
Page 2

If you have any questions about this request or how to complete your report, please contact me at (425) 649-7233 or [sofe461@ecy.wa.gov](mailto:sofe461@ecy.wa.gov). Thank you for your cooperation, and we look forward to working with you.

Sincerely,



Sonia Fernández  
VCP Coordinator  
Toxics Cleanup Program, NWRO

Enclosure (1) Checklist

cc: Ecology Site File  
John Einarsen, Zipper Geo Associates, LLC. (e-mail)

Incomplete Report: The organization of this report is confusing and as a result, it is difficult to find all the data and figures scattered throughout text and Appendices. Historical features and sources such as USTs, dispensers, buildings, etc. are not depicted/labeled in Figures. Also sample locations from the 2013 investigation are not shown in Figures. Some figures don't have any landmarks to indicate where we are in the Property. TEE not included with report.

2018

# Remedial Investigation Checklist

## Henry Bacon Building and Materials—NW3149



May 2016

Publication No. 16-09-006

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FSID: 8428648

Report Name: RI/FS and Remedial Action Report

Date Submitted: 6/14/17

Reviewed By: S. Fernández

Review Date: 1/24/18

**Remedial Investigation (RI) Checklist Guidance**

The Model Toxics Control Act (MTCA) regulation Washington Administrative Code (WAC) 173-340-350(7) broadly describes the elements necessary to complete a RI. The purpose of a RI is to collect and evaluate sufficient information to fully characterize the nature and extent of contamination at a site.

This RI checklist is considered guidance based on the MTCA cleanup regulation WAC 173-340. Cleanup project managers with the Washington State Department of Ecology (Ecology) have discretion when reviewing and accepting RI reports as site-specific circumstances dictate the necessary scope and breadth of each report.

**Remedial Investigation Report Body**

- I. **Cover Letter.** Include a letter describing the submittal and specifying the desired department action or response.
- II. **Introduction.**
  - a. **General Site Information.** Include contact information for project coordinators (Ecology site manager, consultants, potentially liable persons (PLP), and current owner/operator). Include the site name and identification numbers, general description, and location (e.g., GPS coordinates, assessor parcel number, Quarter Section Township Range, address).
  - b. **Site History.** Describe site from earliest known time of habitation and/or development. Describe previous owners/operators, past uses of the site, and all potential/known sources (both on-site and off-site) of contamination (e.g., petroleum storage tanks, manufacturing processes, chemical storage, etc.). Include approximate dates or periods of past product and waste spills, identification of the materials spilled, and amount/location of the spill.
  - c. **Site Use.** Describe current site uses, land use/zoning, and future use plans.
- III. **Field Investigations**
  - a. **Previous Environmental Investigations.** Discuss prior work performed, samples obtained, why sampling locations were chosen, etc. Cite any previous environmental reports.
  - b. **Site Characterization.** Discuss current site characterization activities for each site media (surface water/sediments, soils, groundwater systems, air, and cultural history/archeology, if applicable). Name site contaminants of concern (COCs) and discuss why they were chosen for analysis. Describe how prior and current work efforts contribute to the understanding of the nature and extent of contamination.

FOR ECOLOGY USE ONLY				Comments
Adequate	Incomplete	Missing	N/A	
X				
X				In application and report.
		X		Need a Figure that shows all site features and sources such as buildings, the location of the UST, dispensers, storm water catch basin, maintenance shop, and demolished structures.
X				
		X		You should add to the discussion the nature of the 2003 letters. What Ecology determined on 2003 and what was BMC's response to the letter. The letters are listed but their content was not discussed.
		X		To determine if the Site is adequately characterized we need to know the location of all former Site features and sources such as USTs, dispensers, storm water catch basin, previous investigations sample locations, types of analysis, etc. Need to show these in figures and present in comprehensive tables. All historical and current data should be in one table for each media grouped by sampling event, with date of sampling. Sampling locations of 1989 investigation are not shown in figures.

- c. **Sampling/Analytical Results.** Discussion of sampling/analytical results should include contaminants analyzed for in samples from each applicable site media (soil, groundwater, vapor, surface water). Include comparison of the results to the applicable Method (A, B, or C) cleanup level, sampling method, laboratory method, and any special sampling or analytical protocols (silica gel, filtration, etc.). Evaluate the quality of the data.

**IV. Conceptual Site Model**

- a. **Conceptual Site Model (CSM).** Discuss contaminant release, fate and transport, exposure pathways (surface water, groundwater wells, air, direct contact, etc.), and potential receptors (human, aquatic, terrestrial). Describe typical concerns for this type of environmental contamination, and include a discussion of site specific concerns (hydro-geologic setting, receptors, current or future site zoning/land use etc.).

**V. Proposed Cleanup Standards**

- a. **General.** Clearly identify proposed cleanup levels for each media and rationale for selected level. Explain/justify mixing MTCA methods for different media. Must include a demonstration of conditions that require a calculated solution if one is to be use (e.g., background calculations, use of Method B or C, etc.) and show calculation of the cleanup level, including a list of the input parameters. Include point(s) of compliance.
- b. **Terrestrial Ecological Evaluation (TEE).** A TEE should be performed, if required, as part of cleanup level selection. Reference WAC 173-340-7491 to see if the site qualifies for an exclusion.

[www.ecy.wa.gov/programs/tcp/policies/terrestrial/TEEHome.htm](http://www.ecy.wa.gov/programs/tcp/policies/terrestrial/TEEHome.htm)

**VI. Summary, Conclusions, and Recommendations**

- a. **Summary and Conclusions.** Summarize what is known about the site and contamination (updated CSM). Include discussion of COCs that exceed MTCA or are “indicator hazardous substances.” Ensure conclusions are supported by the tables and figures included with the report.
- b. **Recommendations.** Outline possible interim/remedial actions if appropriate.

**Remedial Investigation Figures**

**General** – Figures should include a north arrow, scale, complete legend, measurement units, and annotated clarification as necessary. Figures should not be cluttered and must be legible and explicable. Document text must reference figures and draw conclusions consistent with information presented on figures. Consider using multiple figures when showing large amounts of information.

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The soil sample collected during the tank removal is not included in tables. There is no mention of the most recent excavation and groundwater sampling until the last 4-5 pages of report. Having figures and tables spread through report and appendices makes it confusing and information is missed.				
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The TEE form for qualifying for an exclusion was not included. The TEE is required for all VCPs.				
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Figures are lacking some critical information like MTCA boundary, site features, historical features, and historical and current sampling locations. Need a Figure that shows all site features and sources such as buildings, the location of the UST, dispensers, storm water catch basin, maintenance shop, and demolished structures. Why are Figures 3 and 4 separate in an Appendix? These two Figures don't show any relation to where they are located in the property. Show the outline of the UST excavation.				

**I. Vicinity Map(s)**

- a. Show property in relation to surrounding region. Area covered by Vicinity Map should be proportional to site size.
- b. Show other applicable items including (but not limited to): surface topography, natural areas, surrounding land uses, location of groundwater supply and monitoring wells within a one mile radius.

**II. Site Map(s)**

- a. Show overall site layout with site features and existing well, boring, and sampling locations labeled consistently with current and historical site data and sample names used in the report. If multiple names exist for a sampling location or area of the site indicate this.
- b. Include COC locations, concentrations, and estimated vertical and horizontal extent of contamination for site media, as applicable. Include waste materials present on site as well as hazardous substance treatment, storage, or disposal areas (show current and historical features).
- c. Show geologic/hydrogeologic information including soil types, wells, screened intervals, and water levels (cross sections are useful for showing this information). Show groundwater flow direction and gradient.
- d. Show other relevant information including (but not limited to): site and property boundaries, buildings/facilities on site, historical site features, underground storage tanks (USTs), previous excavation/interim action activity, etc.

**III. Conceptual Site Model**

- a. Provide figures showing contaminant release(s), fate and transport, exposure pathways, and potential and/or actual receptors. The lateral and vertical extent of contamination, as currently understood, should be clearly conveyed.

**Remedial Investigation Tables**

**General** - Tables should include detailed notes that explain any laboratory or other designations, assumptions, and references. All acronyms used in the table should be defined in a section of the notes even if they are defined in the body of the report, so table information can be quickly understood.

- a. **Sampling Information/Laboratory Methods.** Include current and historical sampling methods and numerical cleanup levels, lab methods, reporting limits, and any special sampling protocols with justification or explanation (e.g. silica gel, filtration).
- b. **Cleanup Levels.** Include potentially applicable ARAR values and recommended cleanup levels.

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			Comments												
<table border="1"> <tr> <td></td> <td></td> <td>X</td> <td></td> </tr> <tr> <td>Adequate</td> <td>Incomplete</td> <td>Missing</td> <td>N/A</td> </tr> <tr> <td></td> <td></td> <td>X</td> <td></td> </tr> </table>						X		Adequate	Incomplete	Missing	N/A			X	
		X													
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It would be easier if all figures and tables were together at the end of the report rather than spread through the text and the Appendices. A figure showing historical site features, sources, USTs, dispensers, etc. is not provided. See general Figure comments.															
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Need to include historical soil sampling locations and areas with historical exceedances in Figures. Vertical extent of impacts prior to cleanup not depicted. Location of sources prior to cleanup not depicted.															
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Need cross sections showing vertical extent of initial impacts, depth of excavation/cleanup, water table, and current conditions post cleanup.															
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Missing current and historical features and sources.															
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The lateral and vertical extent (MTCA boundary for both soil and groundwater before cleanup was not illustrated. Cross sections could help show these.															
Original results of the 1989 UST removal not included. All site data (current and historical) should be in one summary table arranged per sampling event and location and listing the date of collection.															
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Some of the historical data not included.															
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- c. **Site Data.** Include current and historical analytical and field-measured data. Group by media type. For larger data sets, consider making a summary table of exceedances. Tables should include proposed cleanup levels with any contaminant exceedances clearly indicated using bold font or shading. Non-detectible levels should be noted as 'U' with the numerical laboratory reporting limit (RL) provided rather than 'ND'.

**Remedial Investigation Appendices**

**General.** Appendices should contain a description of content and explain how to interpret the information for use. Not all of the following suggestions will apply to all sites.

- a. Exploratory logs, well installation diagrams, groundwater sampling logs, and field records.
- b. Analytical laboratory report and Quality Assurance/Quality Control report.
- c. **Limitations.** Explain any limitations that apply to the work.
- d. Details of field and analytical methods used in former and current investigations and remedial activities. If applicable, append Work Plan/Sampling and Analysis Plan/Quality Assurance Project Plan/Health and Safety Plan.
- e. Other documents that provide additional context or contribute to the understanding of the site – see suggested report format for additional information.

**Miscellaneous Items**

- a. **Environmental Information Management (EIM).** All sampling data must be uploaded into Ecology’s EIM database. This allows Ecology to access data, check results, and/or perform additional analyses. For more information, reference: [www.ecy.wa.gov/programs/tcp/data\\_submittal/Data\\_Requirements.htm](http://www.ecy.wa.gov/programs/tcp/data_submittal/Data_Requirements.htm)
- b. **Certification (Licensed Professional Stamp).** Engineering, geologic, and hydrogeologic work must be performed under seal of an appropriately licensed professional (RCW 18.43 and 18.220).
- c. **Additional information may be requested by Ecology as required to fully define the site.**
- d. **Submittal Requirements:** Ecology requests three copies of reports submitted per WAC 173-340-850. Please contact the cleanup project manager for specific submittal requirements.

To request ADA accommodation or materials in a format for the visually impaired, call Ecology at 509-454-7834, Relay Service 711, or TTY 877-833-6341.

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See general table comments. An exceedance in table 9 not shaded (1099-1: 310 mg/kg).				
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Appendix A does not include a copy of all of the reports listed in page 7; only the first one.				
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Suggest to put all boring logs in one Appendix.				
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Data needs to be submitted into EIM.				
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Only one hardcopy required.				