



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

1250 W Alder St • Union Gap, WA 98903-0009 • (509) 575-2490

July 18, 2016

Raylene Dowell
Port of Chelan County
238 Olds Station Rd., Suite A
Wenatchee, WA 98801-8131

Re: Further Action at a Property associated with a Site:

- **Site Name:** Peshastin Mill Site
- **Property Address:** Mill Road, Peshastin
- **Property Parcel Nos.:** 241808340100, 241808340105, and 241808340110
- **Facility/Site ID:** 24870
- **Cleanup Site ID:** 12661
- **VCP Project No.:** CE0427

Dear Mrs. Dowell:

The Washington State Department of Ecology (Ecology) received your request for an opinion on your independent cleanup of a property associated with the Peshastin Mill Site facility (Site). This letter provides our opinion. We are providing this opinion under the authority of the Model Toxics Control Act (MTCA), Chapter 70.105D RCW.

Issues Presented and Opinion

1. Is further remedial action necessary at the Property to clean up contamination associated with the Site?

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

2. Is further remedial action also necessary elsewhere at the Site?

YES. Ecology has determined that further remedial action is also necessary elsewhere at the Site.

This opinion is based on an analysis of whether the remedial action meets the substantive requirements of MTCA, Chapter 70.105D RCW, and its implementing regulations, Chapter 173-340 WAC (collectively "substantive requirements of MTCA"). The analysis is provided below.



Description of the Property and the Site

This opinion applies only to the Property and the Site described below. This opinion does not apply to any other sites that may affect the Property. Any such sites, if known, are identified separately below.

1. Description of the Property.

The Property includes the following tax parcels in Chelan County, which were affected by the Site and addressed by your cleanup:

- 241808340100
- 241808340105
- 241808340110

Enclosure A includes a diagram of the Site that illustrates the location of the Property within the Site.

2. Description of the Site.

The Site is defined by the nature and extent of contamination associated with the following releases:

- Petroleum products and associated Volatile Organic Compounds (VOCs) into Soil.
- Arsenic into Soil.

Additional Contaminants of Concern (COCs) may be identified with further Site characterization.

3. Identification of Other Sites that may affect the Property.

Please note a parcel of real property can be affected by multiple sites. At this time, we have no information that the Property is affected by other sites.

Basis for the Opinion

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

- RH2 Engineering, Inc. (RH2), 2014. *Phase I Environmental Site Assessment Report, Former Peshastin Mill – Upland Area, Chelan County, WA*. October 2014.

- RH2, 2014. *Phase II Environmental Site Assessment, Former Peshastin Mill Site, Chelan County, WA*. October 2014.
- RH2, 2016. Western Area Site Characterization and Remediation Report, Former Peshastin Log Storage Site, Chelan County, WA. January 2016.
- RH2, 2016. Updated Western Area Site Characterization and Remediation Report, Former Peshastin Log Storage Site, Chelan County, WA. April 2016.

These documents are kept at the Central Regional Office of Ecology (CRO) for review by appointment only. You can make an appointment by calling the CRO resource contact at 509-575-2027.

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 at the Property to clean up contamination associated with 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 for the Site and select a cleanup action for the Property.

- a. Property Specific No Further Action (NFA) Determination: A property specific opinion is not appropriate for this Site unless you are able to show there are no impacts to groundwater from any COC.
- b. COCs and Areas of Concern (AOCs): The COCs, Contaminants of Potential Concern (COPCs), AOCs, and media identified and investigated at the Site are insufficient. The following should be further evaluated, investigated, and/or documented:
 - i. Western Petroleum Contaminated Soil (PCS) Area: Additional confirmational sampling is necessary to verify the PCS has been remediated.
 - 1) Groundwater: The depth to groundwater was estimated at 20 to 40 ft bgs. The excavation of PCS at the Western PCS Area extended to about 10 ft bgs. It is possible that groundwater has been impacted by the PCS disposal at the Western PCS Area. Additionally, the Eastern PCS Area has not yet been addressed, and the extent of contamination at this location is unknown.

- 2) The type of petroleum product disposed of at the Site is unknown, but thought to be waste oil. The required testing, per MTCA Table 830-1, has not been performed.
 - 3) Soil samples collected during the Phase II Environmental Site Assessment (ESA) (August 2014) near the Western PCS Area had detectable concentrations of Polycyclic Aromatic Hydrocarbons (PAHs) and Polychlorinated Biphenyls (PCBs). Confirmatory soil sampling after soil removal only included testing for gasoline, diesel, heavy oil, and Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX).
 - 4) A soil sample collected during the Phase II ESA at location TP-17 had a reported concentration of gasoline at 30 mg/kg. No confirmatory samples were collected during the soil removal from greater than 9 feet below ground surface.
 - 5) It is unclear from the survey provided if the Western PCS Area is on Assessor Parcel No. 241808340105 or 241817772005 (long parcel adjacent to the river). The survey does not include Peshastin Mill Road which is an identifying boundary for the PCS excavation. This distinction is necessary as the latter parcel has been specifically excluded as part of the Site.
 - 6) Disposal manifests were not provided to document the outcome of the excavated PCS.
- ii. Pesticides/Herbicides: The data collected is not adequate for use as screening levels or to characterize the Site.
- 1) The report states “the sample frequency and testing approach for agricultural chemicals was based on the Oregon Department of Environmental Quality (DEQ) document *Guidance for Evaluating Residual Pesticides on Lands Formerly Used for Agricultural Production* (2006)”. However,
 - The number of discrete samples and the number of composites per area do not follow the sampling scheme in Table 1 of the guidance.
 - The guidance states discrete samples should be analyzed from any composite sample exceeding the reporting limit. All of the composite samples had detectable concentrations and no discrete samples were analyzed.
 - Not all of the recommended analyses were performed.

2) Ecology's *Guidance on Sampling and Data Analysis Methods* states composite sampling is not acceptable for use in site characterization. Based on the detectable concentrations reported, further Site characterization is necessary. Refer to Ecology's guidance for selecting a sampling approach and preparing a sampling and analysis plan.

- Insufficient sampling and analysis was performed for metals used in inorganic pesticides.
- Lead and arsenic were not included in the screening, and have not been adequately characterized. Samples collected in the vicinity of the Eastern PCS Area had concentrations of arsenic exceeding Method A Cleanup Levels (CULs). As this location is outside of the known historical agricultural use area, it is unlikely this is an isolated hotspot.

iii. COPCs in connection with mill wood waste disposed of at the Site were not sufficiently investigated. For example:

- 1) Hexavalent Chromium: Concentrations of Total Chromium exceeding the natural background for Washington State were detected. Wood preservatives are a potential source of Hexavalent Chromium. The concentrations did not exceed the Method A CUL for Chromium III, but the association with the mill and contaminated material disposal indicate Chromium VI is a COPC.
- 2) Arsenic: Arsenic in groundwater has been observed at other wood waste sites due to changing chemical conditions resulting from decaying wood waste.

c. Monitoring Wells:

- i. The Phase I and II ESAs (2014) identified a groundwater monitoring well at the Site. No further explanation or documentation was provided.
- ii. The Western Area Site Characterization and Remediation Report (April 2016) identified a 2003 well decommissioning log for a 36 inch diameter, 18 foot deep, hand dug well. Insufficient documentation and discussion were provided.

d. Terrestrial Ecological Evaluation (TEE): The TEE performed for the Property contains inaccurate information and potential exposure to plants, soil biota, and wildlife should be re-evaluated.

- i.* The Site does not qualify as “commercial” property. The Site is zoned as Campus Industrial. The Peshastin Urban Growth Area zoning code lists daycare centers/preschools, many public uses and facilities, agriculture, and recreational areas as permitted uses. These uses do not qualify as “commercial” uses under MTCA. Refer to the Concise Explanatory Statement of the MTCA Cleanup Regulation for additional clarification.
 - ii.* The Site was determined to be exempt from conducting a TEE. The rationale for the exemption was unsubstantiated. Supporting documentation is required for Ecology evaluate the sufficiency of the evaluation (exemption, simplified TEE, or site-specific TEE).
- e.* Direct Comparison: The rationale and appropriateness for the use of direct comparison of sample contaminant concentrations to CULS in order to characterize the Site, was not adequately discussed. Direct comparison is typically used at Sites where the source of contamination is known (e.g., a leaking Underground Storage Tank).

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.

Additional characterization is necessary to establish cleanup standards protective of human health and the environment. Furthermore, the established CULs were not adequately discussed or evaluated.

- a.* A more comprehensive Conceptual Site Model (CSM) is necessary to understand and evaluate the nature of the contaminant releases, fate and transport, exposure pathways, and potential and/or actual receptors; before CULs can be evaluated.

The rationale for selecting specific CULs should be thoroughly documented. Examples include:

- i.* If using Method B table values, you need to indicate the specific value selected (saturated soil protective of groundwater, soil human direct contact (cancer), Method Detection Limit (MDL), etc.), **and** provide documentation showing this value is the most stringent for the receptors identified.
- ii.* Sediment Sample: The sediment sample results were compared to soil cleanup standards. Justification for this decision was not provided.

“Sediment” is defined in Part V (WAC 173-204-505(22)) as:

... settled particulate matter located at or below the ordinary high water mark, where the water is present for a minimum of six consecutive weeks, to which biota (including benthic infauna) or humans may potentially be exposed, including that exposed by human activity (e.g., dredging).

- b. Contaminants without Method A CUL or Ecological Indicator Soil Concentration values were not evaluated. The exclusion of these compounds is unsubstantiated.

Example: Table 5 – PAHs and PCBs in Soil. The table indicates there are no CULs for non-carcinogenic PAHs available, but only Method A and the Ecological Indicator Soil Concentration values have been evaluated.

3. Data Quality Objectives and Evaluation

Generally, the data quality evaluation is inadequate and incomplete. Refer to Ecology’s Environmental Assessment Program for guidance and resources.

<http://www.ecy.wa.gov/programs/eap/quality.html>

Specific examples include, but are not limited to:

- a. The data quality objectives did not specify detection limits low enough to allow comparison with CULs.
- b. The laboratory Practical Quantitation Levels (PQLs) were not compared to cleanup levels to verify contaminants with very low cleanup requirements have not been omitted from evaluation.

Example: The lab reported PQL for Dichlorodiphenyl Dichloroethylene (DDE) in water is 0.12 ug/L using EPA Method 8081B. The Method B (cancer) Surface Water CUL for DDE is 3.53×10^{-4} ug/L. A PQL as low as 0.005 should be attainable.

- c. The data quality analysis should include all data collected to characterize the Site. The discussion should include specific information for any flagged results; including, at a minimum, the sample name, compound, and evaluation of each flagged result.
- d. Pacific Agricultural Laboratory (PAL): Ecology’s online Lab Search database indicates PAL is not accredited in Washington State to analyze herbicides by EPA Methods 8151A or 8270D.
- e. Data Tables: The lab results summary tables were not reviewed for completeness and accuracy.

4. Selection of cleanup for the Property.

Ecology has determined the cleanup action you selected for the Property **does not** meet the substantive requirements of MTCA.

The characterization of the Property and the Site are not sufficient to select, or evaluate the completeness of, a cleanup action.

Data Submittal Requirements

Toxic Cleanup Program (TCP) Policy 840: Data Submittal Requirements (Pub. No. 16-09-050, revised April 2016) requires site-specific environmental sampling data be entered into the Environmental Information Management System (EIM) database at the time any report is submitted requesting an opinion on the sufficiency of the action under the Voluntary Cleanup Program (VCP), and before Ecology will review independent remedial action reports under the VCP.

Future document reviews and opinions will be postponed until the sampling data has been entered into EIM.

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.

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July 18, 2016
Page 9

3. State is immune from liability.

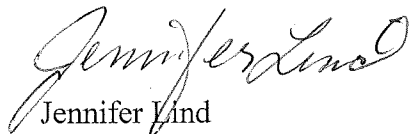
The state, Ecology, and its officers and employees are immune from all liability, and no cause of action of any nature may arise from any act or omission in providing this opinion. See RCW 70.105D.030(1)(i).

Contact Information

Thank you for choosing to clean up your Property 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 web site: www.ecy.wa.gov/programs/tcp/vcp/vcpmain.htm. If you have any questions about this opinion, please contact me by phone at (509) 454-7839 or e-mail at Jennifer.Lind@ecy.wa.gov.

Sincerely,



Jennifer Lind
Site Manager
CRO Toxics Cleanup Program

Enclosure (1): Diagram of the Site and Property

cc: Bruce Williams, GeoEngineers
Matt Alexander, Interim VCP Financial Manager (without enclosures)

Enclosure A

Diagram of the Site (including the Property)