



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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

July 10, 2017

Patrick Jones
Port of Chelan County
238 Olds Station Rd
Wenatchee, WA 98801

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

Site Name: Cashmere Mill Site
Site Address: 5500 Mill Road, Cashmere
Facility Site No.: 20168
Cleanup Site No.: 11386
VCP Project No.: CE0454

Dear Mr. Jones:

The Washington State Department of Ecology (Ecology) received your request for an opinion on your independent cleanup of a Property associated with the Cashmere 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.

- a. The Property includes the following eleven (11) tax parcels in Chelan County, which were affected by the Site and addressed by your cleanup:

- 231905110500 • 231905110550 • 231905141250
- 231905110600 • 231905110650 • 231905924070
- 231905925010 • 231905141200 • 231905130200
- 231905924005 • 231905110150

The Property **does not** include portions of the City of Cashmere Mill Road and Sunset Highway Right-of-Ways (ROWs).

- b. Your Property description **does not** meet the following eligibility guidelines for Property specific cleanups:
- i. The Property should include ROW easements located on tax parcels except under certain conditions. ROW easements have not been included, and the exclusion conditions have not been met.
 - ii. The Property may include multiple tax parcels, provided those parcels are contiguous. The exclusion of the City of Cashmere ROWs prevents the Property from being contiguous.

2. Description of the Site.

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

- Petroleum Hydrocarbons into Soil and Groundwater
- Metals into Soil and Groundwater

- Carcinogenic Polycyclic Aromatic Hydrocarbons (cPAHs) into Groundwater
- Non-Carcinogenic Polycyclic Aromatic Hydrocarbons (PAHs) into Groundwater
- Semi-Volatile Organic Compounds (SVOCs) into Soil
- Volatile Organic Compounds (VOCs) into Soil

Those releases have affected more than one parcel of real property, including the parcels identified above.

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:

1. RH2 Engineering, Inc. (RH2); *Port of Chelan County, Former Mill Site, Wood Waste, Soil and Groundwater Characterization Plan*; September 2012
2. RH2; *Former Cashmere Mill Site Removal Action Work Plan*; February 2013
3. Maul Foster Alongi (MFA); *Site Characterization Report, Former Cashmere Mill Site*; March 2013
4. GeoEngineers; *Dewatering Assessment, Cashmere Mill Site Remedial Excavation (Phase 2)*; July 2013
5. GeoEngineers; *Wetland and Stream Delineation Report, Former Cashmere Mill Site*; April 2014
6. GeoEngineers; *Data Gap Assessment Report, Former Cashmere Mill Site*; May 2014
7. MFA; *Phase I Interim Action Report, Former Cashmere Mill Site*; May 2014
8. GeoEngineers; *Remedial Action Report, Former Cashmere Mill Site (Phase 2)*; April 2015
9. Middour Consulting, LLC; *Groundwater Control Plan, Cashmere Mill Site*; June 2016
10. Department of Ecology Correspondence File

These documents are kept at the Central Regional Office (CRO) of Ecology 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 for the Property.

The boundaries of the Site have not been defined. Characterization activities have been restricted to the eleven (11) parcels associated with the Property. It is unclear if the mill ever occupied or utilized any adjacent properties during its operation. The extent of the historical usage of the Site vicinity should be evaluated.

The documents (work plans, reports, memorandums, etc.) submitted to Ecology have not been sufficiently summarized into a cohesive report. Ecology is unable to evaluate the sufficiency of the characterization performed without a complete Conceptual Site Model (CSM).

2. Establishment of cleanup standards for the Site.

a. Substance-specific standards.

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

i. Cleanup Levels (CULs)

CULs were developed for each phase of the cleanup separately. Cleanup standards should apply to the Site as a whole, not individual parcels of real property within the Site.

The established CULs contained significant oversights in the evaluation process. Examples of issues identified:

- 1) A Terrestrial Ecological Evaluation (TEE) was not adequately performed or documented. The TEE values should be evaluated based on all detected analytes. Soil biota and plants, in addition to wildlife, may need to be evaluated as receptors near to Brender Creek and associated wetlands.
- 2) Brender Creek and associated wetlands are present on the Property. Evaluation of sediments and surface water may be necessary.

In addition to complying with the requirements in chapter 173-340 WAC, sediment cleanup actions must also comply with the requirements of chapter 173-204 WAC.

- 3) It was not adequately demonstrated that the human direct contact pathway is protective of all receptors and media. Groundwater at the Site is impacted by petroleum hydrocarbons, metals, cPAHs, and PAHs. The soil leaching to groundwater pathway cannot be dismissed.
- 4) The Data Gap Assessment Report (GeoEngineers, 2014) and the Remedial Action Report (GeoEngineers, 2015) did not consider any analytes that were not listed in MTCA Tables 720-1: Method A Cleanup Levels for Ground Water or 740-1: Method A Soil cleanup Levels for Unrestricted Land Uses.
- 5) A site-specific TPH CUL was established and used in the above referenced reports. TPH present at the Site is not from a single release, and the TPH composition is likely not consistent throughout the Site.

A memo prepared by MFA in 2013, addressed this issue and determined that “because of the observed variability in TPH concentrations and the resultant calculated CULs, it is not reasonable to apply a site-side TPH CUL”.

Sufficient information has not been provided to justify the use of a Site-wide value. Justification must be provided or reevaluation of TPH concentrations at the locations addressed in the Data Gap Assessment and Remedial Action Reports will likely be necessary.

- 6) The Phase I Interim Action Report (MFA, 2016) used MTCA Method B values when Method A values were not available. The Method B exposure pathway was not indicated on the report tables, but appears to be based on direct contact. An evaluation of protective concentrations based on potential pathways and receptors should be performed.

Ecology guidance documents that may assist in developing cleanup standards:

- *Focus Sheet: Developing Soil Cleanup Standards Under the Model Toxics Control Act.*
- *Model Toxics Control Act Cleanup Regulations: Establishing Cleanup Standards and Selecting Cleanup Actions*
- *Focus Sheet: Developing Ground Water Cleanup Standards under the Model Toxics Control Act*

ii. Points of Compliance (POC) Selected

Soil: The standard POC for unrestricted land use.

Groundwater: A conditional POC not to exceed the Property boundary.

The selection of a Conditional POC for groundwater has not been justified. For example, sufficient compliance monitoring has not been performed to demonstrate the groundwater plume is stable or shrinking.

A Feasibility Study (FS) is necessary to select a cleanup for your Property and justify the use of a Conditional POC for groundwater. Refer to WAC 173-340-360(2)(c) and 173-340-720(8)(c).

Ecology guidance documents that may be useful in evaluating the appropriateness of a Conditional POC:

- *Model Remedies for Sites with Petroleum Impacts to GW*
Note: The Cashmere Mill Site does not qualify for a Model Remedy.
- *Guidelines for Property Cleanups under the Voluntary Cleanup Program*
- *Guidance on Remediation of Petroleum-Contaminated Groundwater by Natural Attenuation*

- iii. Overall, the cleanup standards for the Site were incorrectly evaluated and established. A complete CSM is necessary to evaluate potential receptors (human, aquatic, and terrestrial), fate and transport, exposure pathways (surface water, groundwater, air, direct contact, etc.).

Note: Existing reports contain components of a CSM, but have not been cohesively presented. It is unclear whether the conceptual understanding of the Site identifies all potential or suspected sources of hazardous substances, types and concentrations of hazardous substances, potentially contaminated media, and actual and potential exposure pathways and receptors.

Future submittals should clearly identify the cleanup levels for each media and include a rationale for the selected level.

The CUL evaluation must clearly indicate the specific screening levels you are evaluating (Ex., TEE, Method B direct human contact of soil, Method B saturated soil concentrations protective of groundwater, Method A unrestricted land use vs. industrial properties, etc.).

3. Selection of cleanup for the Property.

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

a. The cleanup selected for the Property includes:

- i. An interim action consisting of the excavation and off-site disposal of petroleum contaminated soil.
- ii. Institutional controls to be implemented by an Environmental Covenant recorded against the Property.

b. The cleanup selected for the Property **does not**:

- i. Sufficiently demonstrate per WAC 173-340-720(8)(c):
 - It is not practicable to meet the cleanup level throughout the site within a reasonable restoration time frame,
 - That all practicable methods of treatment are to be used in the site cleanup.
- ii. Have not met the minimum requirements for the selection of cleanup actions per WAC 173-340-360(2).

4. Cleanup of the Property.

Ecology has determined the cleanup you performed **does not** meet the applicable Site cleanup standards within the Property.

The cleanup performed for the Property **does not** meet the **substantive** or **administrative** requirements of MTCA.

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**:

- Change the boundaries of the Site.
- 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.030(1)(i).


Patrick Jones
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Contact Information

Thank you for choosing to clean up your Property under the Voluntary Cleanup Program (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
CRO Toxics Cleanup Program

cc: Justin Clary, Maul Foster Alongi
Matt Alexander, VCP Financial Manager