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June 22, 2020

Cathie Carlson
Bethel School District
516 176th St E
Spanaway, WA 98387
ctcarlson@bethel.org

Re: No Further Action at the following Site:

- **Site Name:** Prairie Pit Maintenance Facility
- **Site Address:** 16720 Waller Rd E, Tacoma, Pierce County, WA 98446
- **Facility/Site ID:** 40178
- **Cleanup Site ID:** 15007
- **VCP Project No.:** SW1708

Dear Cathie Carlson:

On March 2, 2020, the Washington State Department of Ecology (Ecology) received your request for an opinion on the proposed independent cleanup of the Prairie Pit Maintenance facility (Site). The Prairie Pit Maintenance facility cleanup was formerly being completed by Pierce County under VCP project number SW1684 (VCP project number SW1684 was terminated by per customer request on March 24, 2020). Your opinion request, including upload and acceptance of all electronic data into Ecology's Environmental Information Management (EIM) system database, was complete on April 18, 2020.

This letter provides our opinion. We are providing this opinion under the authority of the [Model Toxics Control Act \(MTCA\)](#),¹ chapter 70.105D Revised Code of Washington (RCW).

Issue Presented and Opinion

Ecology has determined that no further action is necessary to clean up your 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, Washington Administrative Code (WAC) chapter 173-340 (collectively "substantive requirements of MTCA"). The analysis is provided below.

¹ <https://fortress.wa.gov/ecy/publications/SummaryPages/9406.html>.

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 parcel in Pierce County, which was affected by the Site:

- 0319262074.²

The Property is formerly a part of the Prairie Pit Maintenance Facility. The new parcel represents the northern 13.4 acres of the Prairie Pit Maintenance Facility. The new street address for the 13.4 acre parcel is 16720 Waller Road East, Tacoma, in unincorporated Pierce County. This is the first time the Property has been developed. An elementary school is proposed to be the future Property and Site use. The Site is contained within the boundaries of tax parcel 0319262074.

2. Description of the Site.

A Site description as it is currently known to Ecology is included in **Enclosure A**. The Site is defined by the nature and extent of contamination associated with the following release:

- Petroleum (gasoline and heavy oil) into the soil.
- Metals into the soil.
- Carcinogenic polycyclic aromatic hydrocarbons (cPAHs) into the soil.

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

A parcel of real property can be affected by multiple sites. At this time, we have no information that the Pierce County tax parcel associated with this Site (0319262074) are affected by other sites. The Property and the Site do not lie within the known footprint of the Tacoma Smelter Plume.³

² Current parcel created from original Pierce County tax parcel of 0319262004.

³ Per review of internal Ecology database maps on December 30, 2019.

Basis for the Opinion

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

1. Migizi Group, *Geotechnical Engineering Report*, May 2, 2019.
2. SCH Alliance, *Technical Memorandum, Waller Road Site Reconnaissance*, May 2, 2019.
3. Shannon and Wilson, *Soil Management Plan*, November 25, 2019. Revised January 20, 2020.
4. Herrera Environmental Consultants, Inc. (Herrera), *Site Closure Report*, November 25, 2019.
5. Ecology, Re: *Opinion on a Proposed Cleanup at a Site*, January 30, 2020.
6. Herrera, *February 2020 Groundwater Monitoring Report*, February 26, 2020.

Those documents are kept in the Central Files of the Southwest Regional Office of Ecology (SWRO) for review by appointment only. Information on obtaining those records can be found on [Ecology's public records requests web page](https://ecology.wa.gov/About-us/Accountability-transparency/Public-records-requests).⁴ Some site documents may be available on [Ecology's Cleanup Site Search web page](https://fortress.wa.gov/ecy/gsp/SiteSearchPage.aspx?csid15007).⁵ This opinion is void if any of the information contained in the documents is materially false or misleading.

Analysis of the Cleanup

1. Characterization of the Site.

Ecology has determined your characterization of the Property and Site is sufficient to establish cleanup standards and select a cleanup action. All determinations in this letter are Site-specific, and may not be applicable to other Sites based on differences in conditions between Sites.

Soil Management Plan

Shannon and Wilson provided a revised version of their *Soil Management Plan*, dated November 25, 2019. The revised plan, dated January 20, 2020, incorporated Ecology's comments. Ecology concurs with the January 20, 2020, version of the proposed plan. This plan is to be used during the construction process to manage newly encountered contaminated soils, if needed.

⁴ <https://ecology.wa.gov/About-us/Accountability-transparency/Public-records-requests>.

⁵ <https://fortress.wa.gov/ecy/gsp/SiteSearchPage.aspx?csid15007>.

Site Exposure Pathways

A detailed analysis of pathways at the Site is provided in Ecology's opinion letter dated January 30, 2020. The final remaining pathway for evaluation is groundwater. Groundwater sampling events were completed in August, November, and February 2020.

The sampling was completed in accordance with the requirements of section 10.3, Ecology Publication No. 10-09-057, *Guidance for Remediation of Petroleum Contaminated Sites*, revised June 2016. Based on the data received, Ecology makes a Site-specific determination that groundwater results are in compliance with cleanup levels.

Herrera reported potential unintended surging of the water column in monitoring well MW-1 during the August 2019 sampling event. Herrera contends that this unintended action may have increased turbidity and caused some metals attached to suspended soil particles to be inadvertently captured within the groundwater sample. Herrera's explanation appears to be more likely than not the reason for the metals detections in groundwater given that concentrations of metals decreased between August 2019 and February 2020 after suspended soils particles in the wells had time to settle.

Petroleum hydrocarbons were not detected in any monitoring well during any event, suggesting that metals detected in groundwater were not related to the release at the Site. Elevated turbidity was reported in groundwater sampled from monitoring well MW-1 during the August 2019 and February 2020 sampling events. Chromium and lead were also detected at concentrations slightly greater than the laboratory reporting limits at monitoring well MW-3, which was well away from the contaminated soil areas. These data suggest that chromium and lead detected in groundwater may have been related to background concentrations and not the release at the Site.

Based on Ecology's professional judgement,⁶ the three consecutive quarterly sampling events were completed across seasonal fluctuations and after contaminated soil excavation. Concentrations of hazardous substances in groundwater were generally not detected. It is more likely than not that groundwater was not impacted by the release(s) at the Site. The detections of metals in MW-1 during the August 2019 groundwater sampling event were likely the result of increased sample turbidity as a result of unintended well surging. These results are protective of Site groundwater, and demonstrate that no impacts to any nearby domestic supply wells have occurred.

Electronic Information Management System (EIM) Data

On April 20, 2020, the Voluntary Cleanup Program (VCP) site manager concurred with the Site data accepted into EIM on April 18, 2020.

⁶ WAC 173-340-360(2).

2. Establishment of Cleanup Standards.

Based on the results of the interim action taken to remove contaminated soils, it appears that contaminated soil has been successfully remediated at the Site. Groundwater results are also in compliance with the established cleanup levels. Excavation extent samples showed that remaining contaminant concentrations were less than the applicable MTCA Method A and B cleanup levels. The following cleanup levels are established for Site hazardous substances/contaminants of concern:

Hazardous Substance	MTCA Cleanup Level ⁷	Soil Cleanup Level (mg/kg) ⁸	Groundwater Cleanup Level (µg/L) ⁹	Protective of Ecological Receptors (mg/kg) ¹⁰
TPH as gasoline	A/A	30	800	200
TPH as diesel	A/A	2,000	500	460
TPH as heavy oil	A/A	2,000	500	460
Cadmium	A/A	2	5	25
Chromium (total; trivalent)	A/A	2,000	50	42
Lead	A/A	250	15	220
Nickel	B/B	1,600 ¹¹	100 ¹²	100
Zinc	B/B	6,000 ¹³	10,000 ¹⁴	270
cPAHs (Benzo[a]pyrene)	A/A	0.1	0.1	30

Use of MTCA Method B cleanup levels for certain Site hazardous substances in certain media is acceptable under WAC 173-340-700(8)(b)(i), when a petroleum cleanup is eligible for MTCA Method A cleanup levels, like at this Site.

Ecology concurs with the following proposed standard points of compliance at the Site:

Media	Point(s) of Compliance
Soil-Direct Contact	Met at a standard point of compliance of 15 feet bgs, based on removal of contaminated soil. No contaminated soils remain.
Soil- Protection of Groundwater	Met at a standard point of compliance – groundwater results comply with cleanup levels.
Soil-Protection of Plants, Animals, and Soil Biota	Met at a standard point of compliance at 15 feet bgs. All contaminated soils have been removed and remaining concentrations comply with values protective of ecological receptors.
Groundwater	Met at a standard point of compliance – groundwater results comply with cleanup levels.

⁷ More stringent of protective of human health or ecological receptors applies.

⁸ mg/kg = milligrams per kilogram.

⁹ µg/L = micrograms per Liter.

¹⁰ Table 749-2, values protective of ecological receptors.

¹¹ Protective of the direct contact pathway because never detected in groundwater.

¹² Washington State maximum contaminant goal.

¹³ Detected in groundwater, so the value here is protective of groundwater vadose @ 13 degrees C.

¹⁴ Both Washington State and Federal maximum contaminant goal (MCL) value.

No points of compliance were established for the air/vapor, surface water, and sediment pathways because these pathways were incomplete for the Site. All contaminated soils appear to have been removed. It appears cleanup levels have been met at the Site in all applicable media at standard points of compliance.

3. Selection of Cleanup Action.

Interim Action Results

To remove contaminated soils, Herrera oversaw excavation of approximately 1,001.77 tons of soil as an interim action. Removal of contaminated soil is consistent with the requirements for current and future schools sites under WAC 173-340-360(2)(d).

Herrera reported that the contaminated soils were stockpiled on plastic sheeting and covered with plastic sheeting while awaiting profiling. After stockpile sampling and profiling was complete, soils were segregated based on those which could be disposed of at a non-hazardous waste landfill, and those which had to be disposed of as dangerous waste. The dangerous waste designation was based on the TCLP results for lead (exceeding 5.0 milligrams per Liter), indicating the toxicity characteristic.¹⁵

A total of 242.49 tons of soil were disposed of as dangerous waste (hazardous soils) at Chemical Waste Management in Arlington, Oregon. A total of 759.28 tons of soil, which did not designate as dangerous waste (non-hazardous soils), were disposed of at LRI landfill. Both are permitted disposal facilities.

Final Results

Sufficient groundwater data have been collected to demonstrate that groundwater results are in compliance with the cleanup levels at a standard point of compliance. Because all contaminated soils were removed from the Site, and cleanup levels are met at standard points of compliance at the Site, this cleanup does not require institutional controls or an environmental covenant. Cleanup requirements under WAC 173-340-360(2) have been met.

As the SW1708 cleanup is for a Site which is not ranked, no public notification or comment period is necessary for the No Further Action status issued via this letter.

Following WAC 173-160, the three monitoring wells at the Site should be decommissioned. If Site groundwater monitoring wells are not decommissioned and/or the decommissioning well logs are not submitted to Ecology, we may rescind this no further action (NFA) letter.

¹⁵ Table 1 in WAC 173-303-090.

Listing of the Site

Based on this opinion, Ecology will remove the Site from our Confirmed and Suspected Contaminated Sites List.

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 proposed will be 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).

Termination of Agreement

Thank you for cleaning up the Site under the VCP. This opinion terminates the VCP Agreement governing this project (#SW1708).

For more information about the VCP and the cleanup process, please visit our [Voluntary Cleanup Program web site](#).¹⁶ If you have any questions about this opinion, please contact me at (360) 407-6265 or tim.mullin@ecy.wa.gov.

Sincerely,



Tim Mullin, LHG
VCP Site Manager
Toxics Cleanup Program
Southwest Regional Office

TCM: tam

Enclosure: A – Site Description

cc by email: Jeff Mann, Bethel School District No. 403 jemann@bethelsd.org
Meg Strong, Shannon and Wilson, Inc. mjs@shanwil.com
George Iftner, Herrera Environmental, Inc. giftner@herrerainc.com
Jeff Rudolph, Pierce County Public Works & Utilities jeff.rudolph@piercecountywa.gov
Kerri Wittman, Pierce County Public Works & Utilities kerri.wittman@piercecountywa.gov
Dan Watts, Tacoma Pierce County Health Department dwatts@tpchd.org
Nicholas Acklam, Ecology nicholas.acklam@ecy.wa.gov
Dan Koroma, Ecology dan.koroma@ecy.wa.gov
John Pearch, Ecology john.pearch@ecy.wa.gov
Derek Rockett, Ecology derek.rockett@ecy.wa.gov
Ecology Site File

¹⁶ <https://www.ecy.wa.gov/vcp>.

Enclosure A

Site Description

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Site Description

The Prairie Pit Maintenance Facility is located at 16720 Waller Road East, Tacoma, Pierce County, Washington (Property). The Property is 13.4 acres in size and was newly created out of the footprint of the Prairie Pit Maintenance Facility. The Prairie Pit Maintenance Facility occupies the southern portion of the former parcel, and continues to operate as an active gravel pit, maintenance facility, and storage area. The Site was contaminated by petroleum and metals in the northwestern portion of the Property.

In reference to the new tax parcel, to the north and west are residential properties, to the east is Waller Road with residential beyond, and the active Prairie Pit Maintenance Facility is adjacent to the south. The Site elevation is approximately 374 feet above mean sea level and the topography of the Site is relatively flat. The Pierce County Assessor-Treasurer's Office (PCATO) notes the Property has been assigned a tax parcel number of 0319262074, and is zoned as residential.

Site lithology is recessional glacial outwash – comprised of gravels, sands, and silts.

The Site and Property are currently undeveloped. The proposed elementary school is the first development of the Property, and is anticipated to remain the future Site and Property use for the foreseeable future.