



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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December 19, 2016

Mr. Steve Clair
Tacoma Housing Authority
902 S L Street
Tacoma, WA. 98405

Re: No Further Action at the following Site:

- **Site Name:** Bay Terrace Phase 2 Development
- **Site Address:** 2505 Court G Tacoma, 98405 Pierce Co.
- **Facility/Site No.:** 12478
- **VCP Project No.:** SW1533

Dear Mr. Clair:

The Washington State Department of Ecology (Ecology) received your request for an opinion on your independent cleanup of the Bay Terrace Phase 2 Development 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.

Issue Presented and Opinion

Is further remedial action necessary to clean up contamination at the Site?

NO. Ecology has determined that no further remedial action is necessary to clean up contamination 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 Site

This opinion applies only to the Site described below. The Site is defined by the nature and extent of contamination associated with the following release:

- Diesel-range petroleum hydrocarbons into soil.

Enclosure A includes a detailed diagram of the Site, as currently known to Ecology.

Please note the parcel of real property associated with this Site is also located within the projected boundaries of the Asarco Tacoma Smelter facility (# 89267963). At this time, we have no information that the parcel is actually affected. This opinion does not apply to any contamination associated with the Asarco Tacoma Smelter facility.

Basis for the Opinion

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

1. Robinson Noble, Bay Terrace Phase II Development Phase I Environmental Site Assessment, October 30, 2015.
2. Robinson Noble, Bay Terrace II Development Independent Remedial Action Report, April 5, 2016.
3. Robinson Noble, Bay Terrace II Development – additional monitoring, November 16, 2016.

Those documents are kept in the Central Files of the Southwest Regional Office of Ecology (SWRO) for review by appointment only. You can make an appointment by calling the SWRO resource contact at 360.407.6365.

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 **no further remedial action** is necessary to clean up contamination at the Site. That conclusion is based on the following analysis:

1. Characterization of the Site.

Ecology has determined your characterization of the Site is sufficient to establish cleanup standards and select a cleanup action.

The Site consists of a portion of Pierce County, Washington tax parcel 2025140081. A 2015 Phase I Environmental Site Assessment conducted for the Property provided information regarding petroleum contamination previously detected in geotechnical soil boring B6. Voluntary Cleanup Program Site SW1415, located immediately adjacent to this Site, received an NFA determination in 2015.

The 2015 Phase I ESA for the Site states that a 1950 Sanborn Fire Insurance map shows an auto repair shop immediately adjacent to the Site at the approximate location where a previous petroleum hydrocarbon plume was identified and remediated (Site SW1415). Site SW1415 received a no further action determination in 2015 for arsenic and lead contamination in surficial soil, and for a release of gasoline-range total petroleum hydrocarbons in soil that was remediated by excavation and offsite disposal. Diesel-range petroleum hydrocarbons were not detected at Site SW1415 above appropriate method detection limits.

In 2016, approximately 89 tons of petroleum contaminated soil in the vicinity of soil boring B6 was excavated and removed for appropriate offsite disposal. Soil samples obtained and analyzed during the excavation detected diesel-range total petroleum hydrocarbons above Model Toxics Control Act (MTCA) Method A cleanup levels in stockpiled soil from the excavation. Other required testing for petroleum releases was conducted at the Site, but, diesel-range total petroleum hydrocarbons were the only constituent of concern detected at the Site.

Because a gasoline-only release (SW1415) and this separate diesel-only release were detected at the location of a former auto repair shop operating from approximately 1950-1968, it is most likely that both releases originated with that shop. No USTs were located during the excavations.

Following excavation, confirmation soil samples obtained from the bottom and sidewalls of the excavation did not detect contaminants of concern above appropriate laboratory method detection limits. The excavation was subsequently filled in with overburden determined clean, and other fill materials.

In March, 2016, a single monitoring well was completed through the backfill to 35 feet below ground surface (bgs). Groundwater was encountered at approximately 22 feet bgs. After development, in March 2016 groundwater from the well was sampled and analyzed

for diesel and oil-range total petroleum hydrocarbons. In October 2016, the well was sampled again for diesel and oil-range total petroleum hydrocarbons and also for carcinogenic Polycyclic Aromatic Hydrocarbons (PAHs).

No contaminants of concern have been detected in in-situ soil or groundwater above appropriate laboratory method detection limits during this investigation. The only contamination reported above cleanup levels was from stockpile samples removed from the Site.

2. Establishment of cleanup standards.

Ecology has determined the cleanup levels and points of compliance you established for the Site meet the substantive requirements of MTCA.

a. Cleanup levels.

The following cleanup levels are used to evaluate this Site:

Soil- Unrestricted Land Use (WAC 173-340-900, Table 740-1):

- Diesel Range Organics 2,000 mg/kg
- Heavy Oil Range Organics 2,000 mg/kg

Soil - Protection of Plants, Animals and Soil Biota (WAC 173-340-900, Table 749-2):

- Diesel Range Organics 460 mg/kg

Groundwater (WAC 173-340-900, Table 720-1):

- Diesel Range Organics 500 µg/L

Groundwater – Protective of Air Quality (WAC 173-340-750(3)(b)(ii)(C)):

- Benzene 2.4 µg/L
- Naphthalene 8.93 µg/L
- VPH [EC8-10 aliphatics + EC10-12 aliphatics] fraction 2.9 µg/L

a. Points of Compliance

The following points of compliance are used:

- **Soil-Direct Contact (WAC 173-340-740(6)(d)):** Based on human exposure via

direct contact, the point of compliance is throughout the Site from ground surface to fifteen feet below the ground surface.

- **Soil- Protection of Groundwater (WAC 173-340-747):** Based on the protection of groundwater, the point of compliance is throughout the Site.
- **Soil-Protection of Plants, Animals and Soil Biota (WAC 173-340-7490(4)(b)):** Based on ecological protection, the point of compliance is throughout the Site from ground surface to fifteen feet below the ground surface.
- **Groundwater (WAC 173-340-720(8)(b)):** Based on the protection of groundwater quality, points of compliance are established as throughout the site from the uppermost level of the saturated zone extending vertically to the lowest most depth which could potentially be affected by the site.
- **Groundwater-Surface Water Protection (WAC 173-340-730(6)):** Based on the protection of surface water, the point of compliance is all locations where hazardous substances are released to surface water.
- **Air Quality (WAC 173-340-750(6)):** Based on the protection of air quality, the point of compliance is ambient and indoor air throughout the Site.
- **Sediment (WAC 173-340-760):** Based on the protection of sediment quality, compliance with the requirements of 173-204 WAC.

3. Selection of cleanup action.

Ecology has determined the cleanup action you selected for the Site meets the substantive requirements of MTCA. The cleanup action selected for the Site includes excavation of contaminated soils with confirmational monitoring, and verification monitoring of groundwater for constituents of concern. The cleanup action selected is protective of human health and the environment, complies with cleanup standards, complies with applicable state and federal laws, provides for compliance monitoring, uses permanent solutions, and includes a reasonable restoration time frame.

This cleanup action is eligible for implementation of Model Remedy 1 (WAC 173-340-390, Ecology Publication 15-09-043). The affected media type is soil only. Required testing for petroleum releases (WAC 173-340-900, Table 830-1) was conducted at the Site. The site investigation shows that diesel-range total petroleum hydrocarbons are the only contaminants present in soil. Soil cleanup levels are protective of the direct contact, soil to groundwater pathway, protection of plants, animals and soil biota, and air quality.

Contaminated soil was not detected below the water table. Petroleum contamination was not detected in groundwater.

4. Cleanup.

Ecology has determined the cleanup you performed meets the cleanup standards established for the Site.

The cleanup consisted of excavation of approximately 89 tons of petroleum contaminated soil in the vicinity of soil boring B6 followed by confirmation soil and groundwater samples demonstrating that cleanup standards had been met. A site-specific terrestrial ecological evaluation contaminant analysis shows that no contaminant is, or will be, present in the upper 15 feet (WAC 173-340-7490(4)(b)) at concentrations that exceed the values listed in WAC 173-340-900, Table 749-2.

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

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performed is substantially equivalent. Courts make that determination. *See* RCW 70.105D.080 and WAC 173-340-545.

3. State is immune from liability.

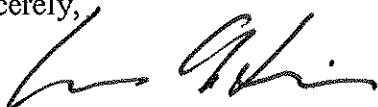
The state, Ecology, and its officers and employees are immune from all liability, and no cause of action of any nature may arise from any act or omission in providing this opinion. *See* RCW 70.105D.030(1)(i).

Termination of Agreement

Thank you for cleaning up the Site under the Voluntary Cleanup Program (VCP). This opinion terminates the VCP Agreement governing this project (#SW1533).

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 or the termination of the Agreement, please contact me by phone at (360) 407-6528 or e-mail at adam.harris@ecy.wa.gov.

Sincerely,



Adam Harris
SWRO Toxics Cleanup Program

AH: hd

By certified mail [91 7199 9991 7037 0221 7966]

Enclosures ([1]): A – Description and Diagrams of the Site

cc: Michael Brady, Robinson-Noble
Rob Olsen, TPHCD
Matthew Alexander, Ecology
Nicholas Acklam, Ecology

Enclosure A

Description and Diagrams of the Site

Site Diagrams



