



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

Northwest Regional Office • 3190 160th Avenue SE • Bellevue, Washington 98008-5452 • (425) 649-7000

September 13, 2011

Mr. William Quisenberry
Quisenberry Partnership LLC
PO Box 109
Port Orchard, WA 98366

Re: **Opinion on Proposed Cleanup of a Property associated with a Site:**

- Property Address: 1215 Bay Street, Port Orchard, WA
- Facility/Site No.: 57499995
- VCP Project No.: NW2423

Dear Mr. Quisenberry:

The Washington State Department of Ecology (Ecology) received your request for an opinion on your proposed independent cleanup of a Property associated with the Bay Ford 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. Upon completion of the proposed cleanup, will further remedial action likely be necessary at the Property to clean up contamination associated with the Site?

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

2. Upon completion of the proposed cleanup, will further remedial action likely be necessary elsewhere at the Site?

YES. Ecology has determined that further remedial action will likely be 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, which were affected by the Site and will be addressed by your cleanup:

- 252401-2-020-2000 (Bay Ford property)
- Maple Street Waterway right-of-way (tax parcel to be determined)

Enclosure A includes a legal description of the Property. The location of the Property within the Site is illustrated in **Enclosure B**.

2. Description of the Site.

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

- Diesel-range and lube-oil range total petroleum hydrocarbons (TPHg and TPHo, respectively) into the Soil

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

Enclosure B includes a detailed description and diagram of the Site, as currently known to Ecology.

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

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

Basis for the Opinion

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

1. Undated. *Remedial Corrective Action Work Plan*. Stemen Environmental, Inc., transmitted via email from Paul Stemen on September 2, 2011.

2. March 25, 2011. *Additional Environmental Investigations Report, March 25, 2011, Bay Ford Site, Port Orchard, Washington*. Stemen Environmental, Inc.
3. January 15, 2011. *Limited Phase II Environmental Assessment Report, January 15, 2011, Bay Ford Dealership, 1215 Bay Street Port Orchard, Washington, Tax Parcels #252401-2-020-2000*. Stemen Environmental, Inc.
4. January 15, 2011. *Limited Phase II Environmental Assessment Report, January 15, 2011, Maple Street Waterway, Public Right of Way, Port Orchard, Washington*. Stemen Environmental Inc.

Those documents are kept in the Central Files of the Northwest Regional Office of Ecology (NWRO) for review by appointment only. You can make an appointment by calling the NWRO resource contact, Sally Perkins, at 425 649-7190.

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, upon completion of your proposed cleanup, **further remedial action** will likely be 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 Site is described above and in **Enclosure B**.

The following specific characterization issues remain:

- Terrestrial habitat conditions have not been described. This is necessary in order to be able to evaluate the need for soil cleanup levels protective of terrestrial species.
- Subsurface sanitary and storm drainage utilities and their depth relative to ground water have not been described. This is necessary in order to evaluate whether the utilities provide preferential pathways for contaminant migration. Of particular importance is whether any direct discharge conduits exist between the Property and the adjoining creek and bay.

- Ground water conditions have not been characterized. Several ground water grab samples were obtained for analysis and showed a diesel impact. However, the impact can only be considered preliminary due to the inherent inaccuracy in the sampling method. Grab samples are often biased high because of contaminated soil entrained in the water. Properly installed monitoring wells are needed to accurately gauge ground water conditions. These wells need to be of sufficient number and spacing to show the nature and extent of contamination, the general direction(s) of ground water flow, and for this Site, the degree of tidal influence.
- Polycyclic aromatic hydrocarbons (PAHs) are likely present as contaminants associated with the TPHd, but have not been included in any of the soil analyses. Further work is necessary to determine the degree to which this group of contaminants may be present at the Site.

2. Establishment of cleanup standards for the Site.

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

a. Soil

Soil Cleanup Levels

Method A soil cleanup levels were selected for the Site without an analysis of exposure pathways. These cleanup levels are protective of direct human contact and sometimes soil leaching to ground water. However, they do not provide for protection of surface water quality, terrestrial species, or soil vapor intrusion, all of which may be needed at the Site. A more thorough analysis of cleanup levels needs to be made.

Soil Point of Compliance

The point of compliance for this Site will be throughout the Site.

b. Ground Water

Ground Water Cleanup Levels

Method A ground water cleanup levels were also selected without an analysis of exposure pathways. These cleanup levels are generally protective of ground water used for drinking water purposes, which is likely not applicable at this Site. More importantly, they are not necessarily protective of surface water beneficial uses, which is likely an issue for this Site. Cleanup levels protective of surface water would be needed if an

evaluation of site conditions indicates the potential for ground water discharge to surface water. A more thorough analysis of cleanup levels for this pathway needs to be made.

Ground Water Point of Compliance

The ground water point of compliance will be throughout the Site.

c. Air

Air Cleanup Levels

MTCA specifically requires an evaluation of soil cleanup levels protective of air for diesel-range hydrocarbons whenever concentrations are greater than 10,000 mg/kg (WAC 173-340-740 (3)(b)(iii)(C)). The implication is that air cleanup levels must also be considered in the circumstance. Diesel-range concentrations exceeding 10,000 mg/kg are present in soils beneath the Property. Method B cleanup levels are likely to apply.

Air Point of Compliance

The air point of compliance would be in ambient air throughout the Site.

3. Selection of cleanup for the Property.

Ecology has determined the cleanup you proposed for the Property **does not meet** the substantive requirements of MTCA. A cleanup action can not be selected until ground water conditions are investigated and cleanup levels developed, as described above.

Although Ecology can not accept the proposed remediation as a final cleanup action, it could be considered an interim action. Ecology strongly supports taking action as soon as possible to begin the remedial effort while completing the work necessary to develop a final cleanup action plan. With this in mind, one question is how the proposed bioremediation will affect soils above the water table. The proposed injection of "nutritionally enhanced microbes" should help reduce contamination in soil and water below the water table, but would not address soil in the unsaturated zone. Another question is how long will it take for microbial action to address the lube-oil contamination. Typically this type of contamination is resistant to biological breakdown.

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 proposed will be substantially equivalent. Courts make that determination. *See* RCW 70.105D.080 and WAC 173-340-545.

3. Opinion is limited to proposed cleanup.

This letter does not provide an opinion on whether further remedial action will actually be necessary at the Property upon completion of your proposed cleanup. To obtain such an opinion, you must submit a report to Ecology upon completion of your cleanup and request an opinion under the VCP.

4. 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 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.

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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 at 425 649-7107.

Sincerely,

A handwritten signature in black ink, appearing to read 'Mark Adams', with a horizontal line extending to the right.

Mark Adams
NWRO Toxics Cleanup Program

ma/kh

Enclosures (2): A – Legal Description of the Property
 B – Description and Diagram of the Site

cc: Paul Stemen, Stemen Environmental, via email

Enclosure A

Legal Description of the Property

Not yet available

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Enclosure B

Description and Diagram of the Site

Site Description

This section provides Ecology's understanding and interpretation of site conditions, and forms the basis for the opinions expressed in the body of the letter.

Site: The Site is associated with an existing Ford dealership located at 1215 Bay Street in Port Orchard and the adjoining Maple Street Waterway public right-of-way. These two comprise "the Property" for purposes of this letter. Diesel-range and lube-oil range petroleum hydrocarbons were released to soil, ground water, and likely air at the Property and comprise the Site, as shown on the attached figure.

Area Description: The Property is situated within the central business district of Port Orchard, between Bay Street and Sinclair Inlet. Bay Street (State Highway 166) serves as the primary commercial thoroughfare for the area, and is lined with other businesses. Residential areas are present immediately behind and above businesses on the south side of Bay Street. The open waters of Sinclair Inlet are behind the businesses on the north side of Bay Street.

Property History and Current Use: The Property was apparently developed some time prior to 1948, possibly first with the Silver Springs Brewery, and later with the placement of fill out into Sinclair Inlet. In 1948 a commercial building was constructed at the Property and occupied by Howe Oil Company. The building housed a combination of offices, a vehicle showroom, and an automotive service/maintenance garage, and had a vehicle fueling station. The vehicle fueling station had a reported four underground storage tanks (USTs). The fueling station was closed in 1976 and the USTs removed in 1989. Howe Oil apparently used the Property to store oil transport trucks, but did not store or load bulk fuels there. The Property currently supports an automotive dealership.

Sources of Contamination: Potential contamination sources associated with this Property include leaks from former USTs and fuel lines (three of the USTs stored gasoline, and one stored heating oil), leaks from 7 former hydraulic lifts within the service garage, and spills and leaks from oil transport trucks. Disposal of fluids associated with vehicle maintenance is also possible.

Physiographic Setting: The Site and surrounding area are on the south shore of Sinclair Inlet in a flat-lying area at the base of a slope. The slope rises steeply inland to the south.

Surface/Storm Water System: The Property is bordered on two sides by water – on the north by the marine waters of Sinclair Inlet and on the east by Blackjack Creek. The creek channel is tidally influenced - visible at low tide and covered at high tide. Blackjack Creek drains a large upland area to the south, and is one of the larger creeks in Port Orchard. Ecology has no information on how storm water runoff is managed at the Property itself.

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Water Supply: The source of potable water for the area is not known to Ecology. However, it is unlikely water supply wells would be near the Property or at any risk from Site contamination.

Ecological Setting: There appears to be terrestrial habitat near the Site along Blackjack Creek and on a forested slope across Bay Street to the south

Geology: Shallow geologic conditions have been explored at the Property with a large number of push probes extended to either 8 or 12 feet below ground surface (bgs). Reportedly about 7 feet of fill overlies native marine silt. Ecology would expect the fill to thicken from the original shoreline outward.

Ground Water: The uppermost ground water at the Site occurs as an unconfined aquifer within the base of the fill and top of the silts. The depth to water has been reported as being close to sea level at 5 to 7.5 feet bgs, but may vary considerably depending on tide and season. Ground water flow directions at not known, but must have a net flow towards Sinclair Inlet/Blackjack Creek.

Release and Extent of Contamination - Soil: The soil contamination associated with the Property is almost entirely defined at present by diesel- and lube oil-range petroleum hydrocarbons (TPHd, TPHo). The contamination appears to extend from land surface to the water table, and is widely distributed across the Property. TPHo exceeds the Method A cleanup levels in the area that formerly had hydraulic hoists, and TPHd exceeds Method A in the east central and Maple Street right-of-way portions of the Property.

Extent of Contamination – Ground Water: Nothing is known about the extent of ground water contamination, although some grab samples did show both TPHd and TPHo. It is not clear whether these detections reflect the sampling method, or actual dissolved concentrations in ground water.

EDGE OF ASPHALT

PUBLIC RIGHT OF WAY

PROPERTY LINE

ASPHALT SURFACE/LEASED PORTION
OF PUBLIC RIGHT OF WAY

BAYFORD PROPERTY

SINCLAIR INLET

BAY STREET

BAY FORD SITE SAMPLING LOCATION MAP

SCALE: 1" = 30'-0"

NORTH-

GENERAL NOTES:

RED -- LUBE OIL RANGE TPH AT LEVELS EXCEEDING
MITCA METHOD A CLEAN UP LEVELS.

GREEN ~ DIESEL FUEL RANGE TPH AT LEVELS EXCEEDING MTCA METHOD A CLEAN UP LEVELS

BLACK -- NO PRESENCE OF TPH OR BTEX AT LEVELS EXCEEDING MTCA METHOD A CLEAN UP LEVELS.

APPROXIMATE
BOUNDARY
OF MTCA
SITE.

M. ADAMS
EC-LOCK

9-12-11