



STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY  
Bellingham Field Office • 913 Squaticum Way, Unit 101 • Bellingham, WA 98225  
(360) 255-4400 • FAX (360) 715-5225

January 15, 2019

Pamela Morrill  
CDM Smith  
14432 SE Eastgate way, Suite 100  
Bellevue, WA 98007

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

- Property Address: 1419 Avenue D, Snohomish, WA
- Facility/Site: 12775192
- VCP Project: NW2740

Dear Pamela Morrill:

The Washington State Department of Ecology (Ecology) received your request for an opinion on your proposed independent cleanup of a Property associated with the Skotdal Enterprises 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**

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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?

**NO. Ecology has determined that no 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 still be necessary elsewhere at the Site?

**YES. Ecology has determined that further remedial action will likely still 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**

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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 Snohomish County, which is affected by the Site and will be addressed by your cleanup:

- 28051200405400

**Enclosure A** includes a legal description of the Property. **Enclosure B** includes a diagram of the Site that illustrates the location of the Property relative to the Site.

### **2. Description of the Site.**

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

- Tetrachloroethene (aka, PCE, tetrachloroethylene, Perc) into the Soil and Ground Water.

This release has affected more than one parcel of real property, including the parcel 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 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**

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

1. CDM Smith, *Remedial Investigation and Focused Feasibility Study, Snohomish County Shop Upper Terrace*, April 30, 2013.

2. Environmental Partners, Inc. *Additional Subsurface Investigation and Preliminary Groundwater Interim Action Plan, Snohomish Cleaners Site*, May 21, 2015.
3. Environmental Partners, Inc., *Interim Action Work Plan*, October 9, 2015.
4. Environmental Partners, Inc., *Interim Remedial Action Report*, August 15, 2017.
5. Environmental Partners, Inc., *Groundwater Monitoring and Investigation Report*, August 16, 2017.
6. Environmental Partners, Inc., *Groundwater Monitoring and Investigation Report December 2016 to November 2017*, May 18, 2018.
7. CDM Smith. Request for Opinion, Skotdal Enterprises, Letter to Department of Ecology, October 10, 2018.

The reports listed above will be kept in the Central Files of the Northwest Regional Office of Ecology (NWRO) for review by appointment only. You can make an appointment by completing a Request for Public Record form (<https://www.ecology.wa.gov/About-us/Accountability-transparency/Public-records-request>) and mailing it to [PublicRecordsOfficer@ecy.wa.gov](mailto:PublicRecordsOfficer@ecy.wa.gov), or contacting the Public Records Officer at (360) 407-6040. A number of these documents are accessible in electronic form from the Site web page (<https://fortress.wa.gov/ecy/gsp/Sitepage.aspx?csid=4313>).

This opinion is void if any of the information contained in those documents is materially false or misleading.

### **Analysis of the Cleanup**

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#### **1. Cleanup of the Property located within the Site.**

Ecology has concluded that, upon completion of your proposed cleanup, **no 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:

##### **a. Characterization of the Site.**

Ecology has determined your characterization of the Site is 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 source of the contamination is a former dry cleaning facility (Snohomish Square Cleaners) that was located approximately 620 feet northeast of the Property, where PCE was released to the soil, infiltrated to ground water, and conveyed by ground water to the Property. The daughter products of PCE (including trichloroethene (TCE); cis-1,2-dichloroethene; trans-1,2-dichloroethene; and vinyl chloride) have also been detected in samples from the Site. However, based on site-specific data, the sole remaining contaminant of concern is PCE in ground water. All PCE-impacted soil was reportedly removed from the source property to the maximum extent practicable (CDM Smith, 2013).

Upon providing the following additional information, the nature and extent of PCE-contaminated soil and ground water remaining at the Site is expected to have been sufficiently delineated to support selection of a cleanup for the Property:

- Preparation of a hydrogeologic cross section that:
  - Provides a vertical elevation scale in feet above Mean Sea Level;
  - Includes the following data points: MW-15, MW-7, GW-10, GW-8, GW-4, GW-6, and Ditch 1;
  - Shows stratigraphy, well screens, range of ground water levels, and PCE ground water concentrations for all sampling dates; and
  - As described in the RI/FS report (CDM Smith, 2013), demonstrates the discontinuous nature of perched ground water and the separation of the two perched ground water systems on the upper and lower terrace.
  
- Completion of a vapor intrusion evaluation, in accordance with the following Ecology guidance documents:
  - Draft Guidance for Evaluating Soil Vapor Intrusion in Washington State: Investigation and Remedial Action. Revised February 2016. Ecology Publication No. 09-09-047.  
<https://fortress.wa.gov/ecy/publications/SummaryPages/0909047.html>
  - Updated Process for Initially Assessing the Potential for Petroleum Vapor Intrusion: Implementation Memorandum No. 14. March 2016. Ecology Publication No. 16-09-046  
<https://fortress.wa.gov/ecy/publications/SummaryPages/1609046.html>
  - Petroleum Vapor Intrusion (PVI); Updated Screening levels, Cleanup Levels, and Assessing PVI Threats to Future Buildings: Implementation Memorandum No. 18. January 2018. Ecology

Publication No. 17-09-043.

<https://fortress.wa.gov/ecy/publications/SummaryPages/1709043.html>

- Completion of a Terrestrial Ecological Evaluation (TEE) form that documents TEE exclusion or completion of a Simplified TEE.

Not all of the soil and ground water sampling data for the Site have been entered into Ecology's Environmental Information Management (EIM) database. Submittal of all sampling data into EIM is a requirement in order to receive an Ecology No Further Action opinion for the Property. Erica Fot ([efot461@ecy.wa.gov](mailto:efot461@ecy.wa.gov), (360) 407-6692) is Ecology's contact and resource for entering data into EIM.

**b. Establishment of cleanup standards for the Site.**

**Ground Water**

**Cleanup Levels.** MTCA Method A Cleanup Levels for Ground Water are the applicable ground water cleanup levels for this Site. The MTCA Method A Cleanup Level for PCE in ground water is 5.0 micrograms per liter ( $\mu\text{g/L}$ ).

**Point of Compliance.** The standard point of compliance for ground water is throughout the Site, from the uppermost level of the saturated zone extending vertically to the lowest depth that could potentially be affected.

**c. Selection of cleanup for the Property.**

Ecology has determined the cleanup you proposed for the Property meets the substantive requirements of MTCA. Your proposed cleanup meets minimum cleanup requirements and will not exacerbate conditions or preclude reasonable cleanup alternatives elsewhere at the Site. The proposed cleanup was described in the October 9, 2015 *Interim Action Work Plan* and August 15, 2017 *Interim Remedial Action Report*, which included the evaluation of several remedial action alternatives. In addition to the off-Property source removal action which consisted of removing approximately 415 tons of PCE contaminated soil in 2006, the selected off-Property remedial action for the Site (in situ bioaugmentation) consists of:

- Establishing baseline ground water and subsurface conditions and pilot testing;

- Injecting an enhanced reductive dechlorination (ERD) product into ground water; and
- Quarterly ground water sampling and reporting, to assess compliance with MTCA Method A cleanup levels for ground water.

In order for the Property to be eligible for a Property NFA opinion, the cleanup must include the following:

- Reporting eight consecutive quarters of on-Property ground water sampling data where PCE and related daughter product concentrations are less than their respective MTCA cleanup levels in all the Property confirmational monitoring wells. Eight quarters are necessary to account for post-remediation rebound of concentrations in ground water (a common occurrence with PCE contaminant plumes).
- Upon successful completion of confirmational ground water monitoring, decommissioning, per WAC 173-160, of any existing monitoring wells that could be damaged or destroyed during future Property development.

## 2. Cleanup of the Site as a whole.

Ecology has concluded that **further remedial action** will still be necessary elsewhere at the Site upon completion of your proposed cleanup. In other words, while your proposed cleanup may constitute the final action for the Property, it will constitute only an “**interim action**” for the Site as a whole.

## Limitations of the Opinion

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### 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).

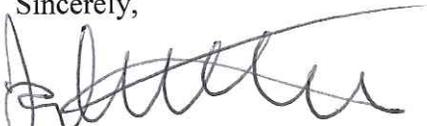
**Contact Information**

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Thank you for choosing to clean up your Property under the Voluntary Cleanup Program (VCP). As you conduct your cleanup, please do not hesitate to request additional services. 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](http://www.ecy.wa.gov/programs/tcp/vcp/vcpmain.htm). If you have any questions about this opinion, please contact me by phone at (360) 255-4381 or by e-mail at [jgue461@ecy.wa.gov](mailto:jgue461@ecy.wa.gov).

Sincerely,



John Guenther, LHG  
NWRO Toxics Cleanup Program

Pamela Morrill  
January 15, 2019  
Page 8

Enclosures:     A – Legal Description of the Property  
                  B – Description and Diagrams of the Site (including the Property)

cc:     Randy Blair, Snohomish County Public Works  
          Eric Koltas, Environmental Partners, Inc.  
          Sonia Fernandez, VCP Coordinator, NWRO

## **Enclosure A**

### **Legal Description of the Property**



Printable Version

[Home](#)   [Other Property Data](#)   [Help](#)

[Property Search](#) > [Search Results](#) > [Property Summary](#)

**Property Account Summary**

Parcel Number	28051200405400	Property Address	1201 BONNEVILLE AVE , SNOHOMISH, WA 98290-2003
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**Parties - For changes use 'Other Property Data' menu**

Role	Percent	Name	Mailing Address
Taxpayer	100	SNOHOMISH CO PROP MGMT	3000 ROCKEFELLER AVE M/S 404, EVERETT, WA 98201
Owner	100	SNOHOMISH CO PROP MGMT	3000 ROCKEFELLER AVE M/S 404, EVERETT, WA 98201
Mortgage Company	100	PUBLIC WORKS SITES	3000 ROCKEFELLER AVE, M/S 404, EVERETT, WA 98201

**General Information**

Property Description	SEC 12 TWP 28 RGE 05BEG AT NE COR SE1/4 TH S TAP 98FT S OF NE COR SE1/4 NE1/4 SE1/4 TH W TO E LN CO RD TH NWLY ALG SD RD TO INT N LN NE1/4 SE1/4 TH E ALG SD N LN TO NE COR SE1/4 TPB
Property Category	Land and Improvements
Status	Active, Locally Assessed
Tax Code Area	00735

*~9.5 total?*

**Property Characteristics**

Use Code	492 Transportation Services & Arrangements
Unit of Measure	Acre(s)
Size (gross)	7.4

**Related Properties**

No Values Found

**Active Exemptions**

Government Property

No Available Tax Charges Information for this Property at the Moment.

**Distribution of Current Taxes**

District	Rate	Amount
TOTALS		

**Pending Property Values**

Pending Tax Year	Market Land Value	Market Improvement Value	Market Total Value	Current Use Land Value	Current Use Improvement	Current Use Total Value
2014	1,302,400	52,100	1,354,500	0	0	0

**Property Values**

Value Type	Tax Year 2013	Tax Year 2012	Tax Year 2011	Tax Year 2010	Tax Year 2009
Taxable Value Regular	0	0	0	0	0
Exemption Amount Regular	1,537,500	1,565,300	1,630,700	1,635,700	2,869,700
Market Total	1,537,500	1,565,300	1,630,700	1,635,700	2,869,700
Assessed Value	1,537,500	1,565,300	1,630,700	1,635,700	2,869,700
Market Land	1,485,400	1,528,900	1,594,300	1,594,300	1,594,300
Market Improvement	52,100	36,400	36,400	41,400	1,275,400
Personal Property					

**Levy Rate History**

Tax Year	Total Levy Rate
2012	13.791224
2011	11.595854
2010	10.467537

**Real Property Structures**

Description	Type	Year Built	More Information

**Property Sales (since 7/31/1999)**

Transfer Date	Receipt Date	Sales Price	Excise Number	Deed Type	Grantor (Seller)	Grantee (Buyer)	Other Parcels

**Property Maps**

Neighborhood Code	Township	Range	Section	Quarter	Parcel Map
5106000	28	05	12	SE	<a href="#">View parcel maps for this Township/Range/Section</a>

**Receipts**

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## **Enclosure B**

### **Description and Diagrams of the Site (including the Property)**

# Site Description

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

## **Site Definition**

The Site is defined by the nature and extent of tetrachloroethene (PCE) detected in ground water. The source of the Site is a former laundry facility located at 1415 Avenue D, Snohomish, Washington. The Site affects a portion of the Property located at 1201 Bonnevill Avenue, Snohomish, Washington.

## **Area/Property Description**

The Property is an approximately 9.5-acre parcel of land identified by Snohomish County Parcel 28051200405400. The Property is currently undeveloped, but was the location of the former Snohomish County Shops located between Avenue D and 97<sup>th</sup> Avenue SE. The property lies across two geologically-formed terraces separated by an abrupt, approximate 30-foot elevation difference. The upper terrace is on the east and the lower terrace is on the west sides of the Property. The upper terrace is the portion of the Property affected by the Site, is relatively flat and is at an elevation of approximately 145 feet above mean sea level.

## **Property History and Current Use**

The Property was used by Snohomish County for storage of miscellaneous equipment and for stockpiling sand and gravel for road maintenance until 2008. Former development included a vehicle wash facility and associated water collection sump. A portion of the Property included the Sheriff's special operations building, traffic operation building, carpentry shop, fleet management offices, the M&O office and sign shop. The Property is currently vacant and most of the structures, footings and slabs have been removed, with patches of asphalt, bare ground and weeds remaining in areas.

The former cleaners (Site contamination source) is no longer in business. The Source property is currently occupied by commercial businesses with retail stores and asphalt pavement parking.

## **Contaminant Source and History**

The contaminant source is presumed to be from the former Snohomish Square Laundry and Cleaners that was located approximately 620 feet north of the Property, where a release of PCE was reported to Ecology in July 2004. PCE use by the Laundry began sometime during the 1970s. The Laundry ceased operation in xx.

## **Physiographic Setting**

The Site is located within the Puget Sound Lowland Physiographic Province, a north-south trending structural and topographic depression is bordered on its west side by the Olympic Mountains, and to the east by the Cascade Mountain foothills. The Puget Lowland is underlain by Tertiary volcanic and sedimentary bedrock, and has been filled to the present day land surface with Pleistocene glacial and non-glacial sediments.

Repeated advances and retreats of the continental glaciers that flowed through the area out of Canada more than 10,000 years ago created the low undulating plains that are characteristic of the Puget Sound Lowland. Current land surfaces reflect the most recent changes that are directly related to glacial events occurring between 13,000 and 20,000 years ago.

The Site (and Property) is centrally located within the Snohomish River Valley. The Valley in this area is approximately 3 miles wide and relatively flat, trending northwest-southeast and surrounded by relatively low-laying hills. The Snohomish River channel is approximately 1.3 miles to the southwest and flows northwest toward Everett, where it discharges to Possession Sound. The Property is at an elevation of approximately 145 feet above mean sea level.

### **Ecological Setting**

The Site is located within an urban area in a commercially-developed portion of the City. The ecological setting is typical of commercial development – mostly impervious surfaces, retail and commercial structures with paved parking lots, residential mixed-use structures, relatively small landscape features and scattered patches of natural vegetation. There is a relatively large undeveloped and vegetated utility right-of-way corridor to the west of the Property. This utility corridor is maintained and no significant terrestrial habitat is known or has been observed or mapped within 500 feet of the Site.

### **Geology**

The low-laying hills surrounding the Snohomish River Valley typically consist of scattered areas of Vashon glacial till underlain by Vashon advance outwash and pre-Vashon transitional beds. The primary geologic unit for the Property area is the Vashon glacial till. Vashon glacial till typically consists of very dense deposits of silty sand to sandy silt with varying amounts of gravels. The relatively dense glacial till is often referred to as hardpan, whose soil characteristics limit infiltration and the movement of groundwater through it. This limited groundwater is often encountered within the upper portion of the till as perched groundwater.

At the Site, native soils consist of brown silty sand with gravel that appear to be primarily that of recessional outwash, with some irregularities that may indicate the presence of till and advance outwash deposits at various depths. The maximum depth explored during recent remedial investigation activities was approximately 26 feet bgs at boring GW-10.

### **Ground water**

Ground water occurs throughout the region under various conditions including perched, unconfined and confined. At the Property, laterally discontinuous perched ground water occurs within the recessional outwash at depths ranging between two and five feet bgs. An unconfined aquifer has also been encountered in the glacial till at elevations ranging from 40 to 80 feet above mean seal level (AGI, 1992; CDM 2008), which is approximately 40 feet below the first zone of perched ground water on the upper terrace. The ground water flow direction is generally

south-southwest.

### **Storm Water/Surface Water**

Stormwater and surface water features on and near the Property include two storm drain systems, drainage swales, roadside culverts and ditches and Cemetery Creek. Blackman Lake is located approximately 2,000 feet northeast and the Snohomish River is located approximately 1.3 miles to the southwest of the Property. One storm drain system includes water discharged from the northern portion of the upper terrace and a seasonal drainage swale located along the northern Property boundary that drains the adjacent property to the north. This combined stormwater discharges to a seasonal drainage swale that extends along the toe of the slope that separates the upper and lower terraces of the Property and eventually discharges to Cemetery Creek. The second stormwater system collects water from the southern portion of the Property and discharges via a culvert on the opposite side of Bonneville Avenue.

### **Water Use/Water Supply**

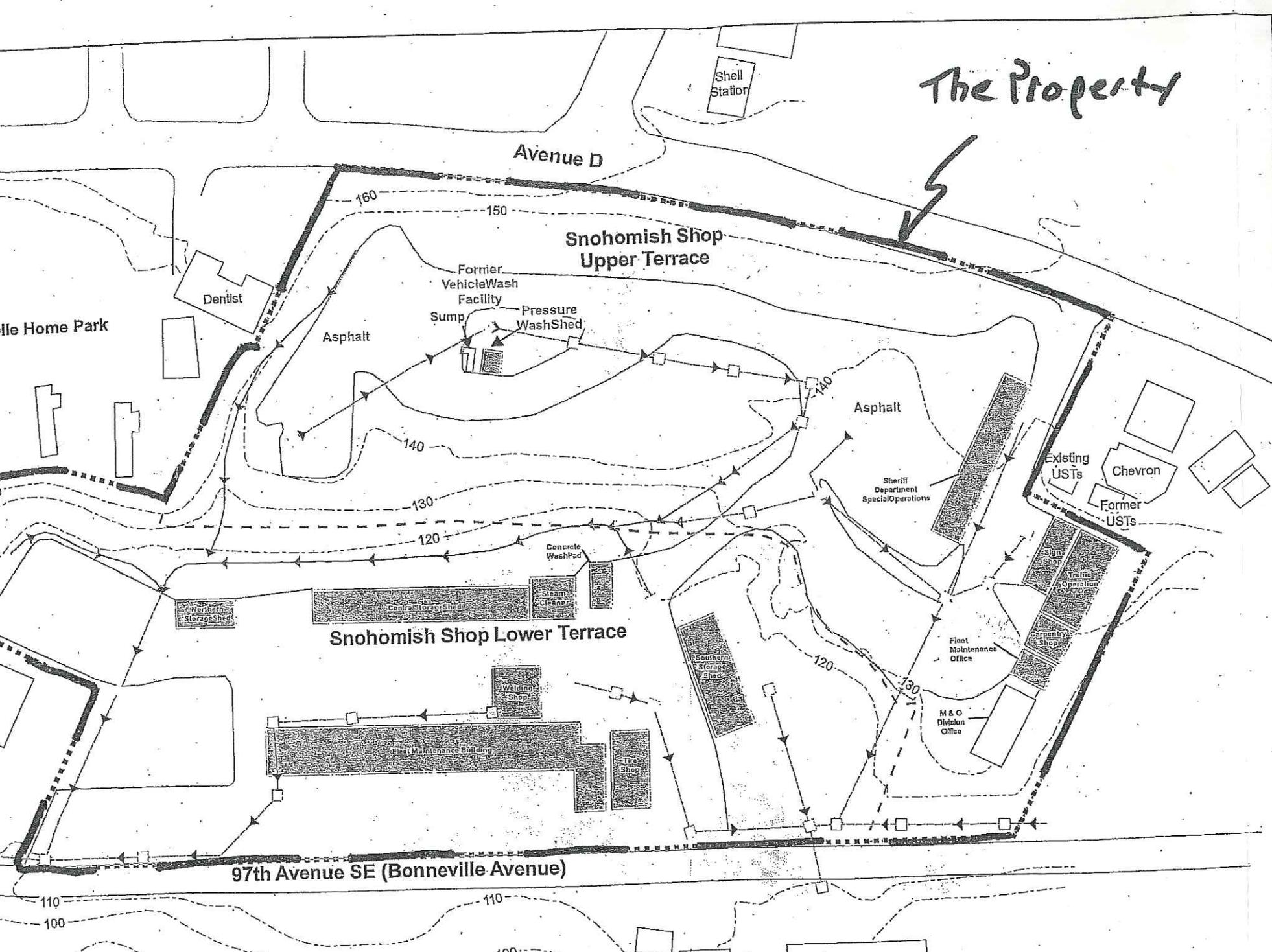
The Property obtains drinking water from the City of Snohomish. The City has two sources of drinking water: the Pilchuck River and water purchased from the City of Everett. Everett water is supplied from the Spada Reservoir which holds approximately 50 billion gallons.

### **Release and Extent of Contamination – Groundwater**

The source of the PCE plume is the vicinity of the former Snohomish Square Laundry. The PCE plume extends south-southwest, beneath Avenue D, and onto the Property. In situ enhanced reductive dechlorination (ERD) of ground water has been conducted in the contaminant source area since February 2017. 3-D Microemulsion® was pumped into injection wells located near the source. A decline in PCE concentrations in ground water samples collected since ERD treatment began has been documented, indicating evidence of effective treatment at the source. Continued treatment is expected to result in a reduction of PCE concentrations in ground water at the Property to less than MTCA Method a cleanup levels, as treated ground water at the Site flows downgradient to the Property.

As the sequential reductive dechlorination of PCE occurs, some of the lesser chlorinated daughter products have been detected at concentrations greater than their respective MTCA cleanup levels, and therefore might become contaminants of concern for the Site. The presence of these compounds will continue to be monitored and evaluated throughout the remediation process.

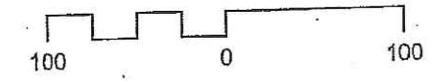
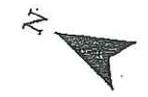
Figures showing the extent of contamination, data tables and groundwater monitoring well locations are included in the May 18, 2018, *Groundwater Monitoring and Investigation Report* prepared by Environmental partners, Inc. This report addresses the monitoring period December 2016 to November 2017 and contains the most recent data used in the development of this opinion.

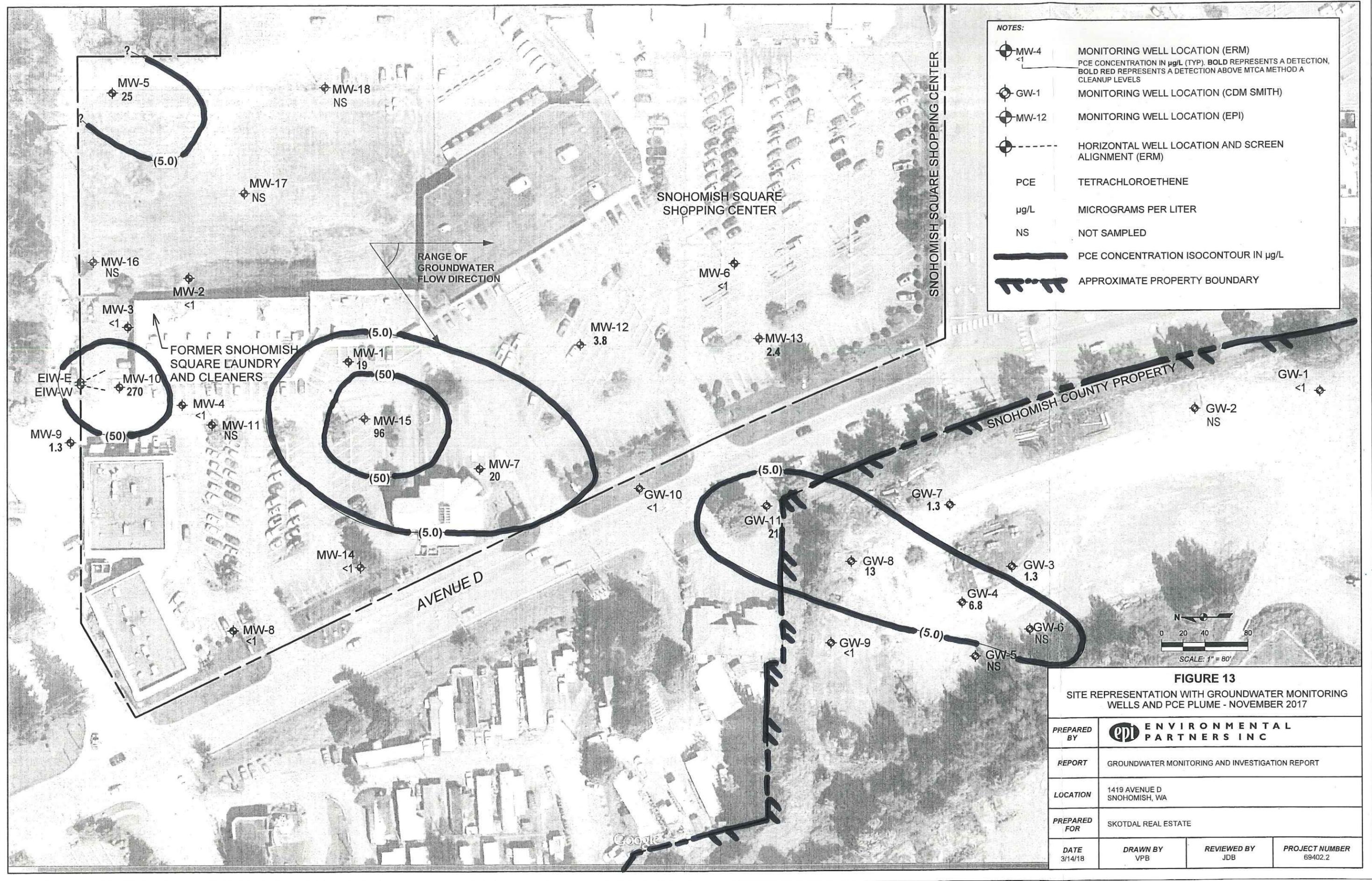


- ### Legend
- Snohomish Shop Property Boundary
  - Snohomish Shop Upper Terrace Boundary (Property)
  - Existing Structure
  - Former Structure
  - Lines of Equal Ground Surface Elevation
  - Edge of Asphalt
  - Storm Drain (Showing flow Direction)
  - Swale
  - Catch Basin

Reference: AGI, 1992  
 Final Report. Focused Remedial  
 Investigation / Feasibility Study  
 of Volatile Organic Compounds,  
 Snohomish Shop, Snohomish,  
 Washington. Modified for current  
 conditions.

Note: Elevations are in feet above  
 mean sea level. (MSL)





- NOTES:**
- MW-4 MONITORING WELL LOCATION (ERM)  
PCE CONCENTRATION IN  $\mu\text{g/L}$  (TYP). BOLD REPRESENTS A DETECTION, BOLD RED REPRESENTS A DETECTION ABOVE MTCA METHOD A CLEANUP LEVELS
  - GW-1 MONITORING WELL LOCATION (CDM SMITH)
  - MW-12 MONITORING WELL LOCATION (EPI)
  - HORIZONTAL WELL LOCATION AND SCREEN ALIGNMENT (ERM)
  - PCE TETRACHLOROETHENE
  - $\mu\text{g/L}$  MICROGRAMS PER LITER
  - NS NOT SAMPLED
  - PCE CONCENTRATION ISOCONTOUR IN  $\mu\text{g/L}$
  - APPROXIMATE PROPERTY BOUNDARY

**FIGURE 13**  
SITE REPRESENTATION WITH GROUNDWATER MONITORING WELLS AND PCE PLUME - NOVEMBER 2017

PREPARED BY	ENVIRONMENTAL PARTNERS INC		
REPORT	GROUNDWATER MONITORING AND INVESTIGATION REPORT		
LOCATION	1419 AVENUE D SNOHOMISH, WA		
PREPARED FOR	SKOTDAL REAL ESTATE		
DATE	DRAWN BY	REVIEWED BY	PROJECT NUMBER
3/14/18	VPB	JDB	69402.2