



STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

Northwest Regional Office • 3190 160th Ave SE • Bellevue, WA 98008-5452 • 425-649-7000  
711 for Washington Relay Service • Persons with a speech disability can call 877-833-6341

January 8, 2020

Sarah Gregory  
Regency Centers/Columbia Cascade Plaza, LLC.  
One Independent Drive, Suite 114  
Jacksonville, FL 32202

**Re: Opinion Pursuant to WAC 173-340-515(5) on Soil Vapor Cleanup Work Plan for the following Hazardous Waste Site:**

- **Site Name:** Classic Cleaners Everett
- **Site Address:** 7601 Evergreen Way B4, Everett, WA 98203
- **Facility/Site No.:** 1382746
- **Cleanup Site ID No.:** 4690
- **VCP Project No.:** NW2745

Dear Sarah Gregory:

The Washington State Department of Ecology (Ecology) received your request for an opinion on *FS/CAP, Cascade Plaza, Everett, Washington* dated October 31, 2019 (FS/CAP) at the Classic Cleaners Everett 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.

#### **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 releases:

- Tetrachloroethene (PCE) in Soil.
- PCE, trichloroethene (TCE), naphthalene, and chloroform in Ground Water.

**Enclosure A** includes the description and diagrams of the Site, as currently known to Ecology.

A parcel of real property can be affected by multiple sites. At this time, we have no information that the parcel(s) associated with this Site (**Enclosure A, Figure 1**) are affected by other sites.



## **Basis for the Opinion**

---

This opinion is based on the information contained in the documents listed in **Enclosure B**. These 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 completing a Request for Public Record form (<https://www.ecology.wa.gov/About-us/Accountability-transparency/Public-records-requests>) and emailing 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://apps.ecology.wa.gov/gsp/Sitepage.aspx?csid=4690>).

## **Analysis and Opinion**

---

Ecology appreciates the updated Site information included in the FS/CAP and provides the following comments:

### **Status of Site Characterization**

- Soil vapor data presented in the FS/CAP (**Enclosure A, Figure 2**) poses the following key issues:
  - PCE soil vapor concentrations above the Method B sub-slab screening level of 320  $\mu\text{g}/\text{m}^3$  ranged from 990  $\mu\text{g}/\text{m}^3$  to 10,000  $\mu\text{g}/\text{m}^3$ , approximately 3 to 31 times the screening level.
  - Indoor air sampling conducted to date in the former dry cleaning tenant space (now occupied by Domino's Pizza) has shown concentrations below Method B air cleanup levels. In accordance with Table E-1 of the *Draft Guidance for Evaluating Soil Vapor Intrusion in Washington State, Investigation and Remedial Action, Publication No. 09-09-047, Revised April 2018*, repeat indoor air sampling should be conducted in sub-slab soil when gas concentrations are greater than 10 times the screening level. Periodic repeat sampling is important to confirm that the building structure remains effective at preventing vapor intrusion impacts to building occupants, until soil vapor concentrations have been reduced by future remedial actions.
  - TCE indoor air and soil vapor concentrations are below short-term TCE action levels and screening levels, respectively (see *Vapor Intrusion (VI) Investigations and Short-Term Trichloroethylene (TCE) Toxicity, Ecology Implementation Memorandum No. 22, October 1, 2019*).



- A comparison of soil vapor samples from depths of 3 inches and 3 feet below the building floor slab show the highest concentrations at the 3-foot depth. These data indicate the likely presence of a residual source of PCE in soil at depths that have not yet been assessed. Supplemental evaluation of PCE in soil within the building floor should be considered for the potential effects of stratigraphy on contaminant distribution, including the transition between weathered glacial till and underlying dense till.
- A complete Site characterization requires delineation of the lateral and vertical extent of soil vapor exceeding Ecology cleanup levels prior to proposing an appropriate cleanup alternative.
- The adequacy of the three existing monitoring wells on the east side of the building (MW-2, MW-3, and MW-4) to document the presence or absence of PCE impacts to ground water has not been demonstrated. Prior Ecology opinion letters recommended installation of an additional monitoring well within the building footprint, as close as possible to the highest detection of PCE in soil (**Enclosure A, Figure 2**). No additional monitoring well has been installed to date.
- Ecology recommends the following steps to assess the adequacy of the existing monitoring well network:
  - Select a groundwater elevation contour map that best represents the predominant ground water flow direction. Superimpose these ground water elevation contours on a Site map that includes the "Remedial Action Area" (RAA) shown on Figure 9 of the *FS/CAP*. Plot limiting flow lines from the RAA, to determine if MW-2, MW-3, and MW-4 are downgradient of the RAA.
  - Use the range of ground water gradients measured from historical ground water elevation contour maps, and representative hydraulic characteristics for the water-bearing zone, calculate a range of estimated ground water velocities. Determine if sufficient time has elapsed for ground water contamination beneath the source area to migrate to any of the wells that have been shown to be downgradient of the source.
  - Evaluate the potential impacts of vertical position of monitoring well screens and screen length on ground water sampling results, with respect to the potential distribution of PCE in groundwater. Include documentation of ground water sample depths based on placement of sampling pump intake and low flow sampling procedures.

- Install additional monitoring well(s) at the source area (**Enclosure A, Figure 2**) to evaluate the contamination status in this location.
- Prepare updated hydrogeologic cross sections along and perpendicular to the predominant ground water flow direction, including:
  - Vertical scale in sea level elevation (NAVD88 vertical datum)
  - Thicknesses of the building floor slab, subgrade, and underlying stratigraphic layers, including weathered till versus dense till
  - Monitoring wells MW-1 and MW-4 (downgradient cross section), including well screen intervals
  - Seasonal high and low ground water levels
  - Soil vapor sample depths and PCE concentrations
  - Soil sample depths and PCE concentrations
  - Ground water sample depths and PCE concentrations, including the samples from borings and temporary monitoring wells

## **FS/CAP**

Ecology provides the following comments:

- Ground water cannot be eliminated as a complete exposure pathway until the supplemental Site characterization data described above have been collected.
- The conceptual site model, exposure model, and proposed remedial action area need to be updated with the supplemental Site characterization data.
- The following items, required per the Feasibility Study Report Checklist (<https://ecology.wa.gov/Spills-Cleanup/Contamination-cleanup/Cleanup-process/Cleanup-options/Voluntary-cleanup-program/Reporting-requirements>), were not included in the *FS/CAP*:
  - Table of preliminary cleanup levels by chemical of concern and affected medium.
  - Proposed point of compliance for each affected medium.

- Identification of applicable local, state, and federal laws (ARARs).
- Identification of Remedial Action Objectives and how they comply with MTCA.
- Detailed description and evaluation of alternatives regarding meeting minimum requirements for cleanup actions, per WAC 173-340-360(2). Note that the alternatives presented in the *FS/CAP* may require modification, based on supplemental Site characterization data, especially the vertical extent of PCE contamination in soil and soil vapor.
- Description of the Disproportionate Cost Analysis (DCA) that is summarized in Table 6, including comparing and contrasting each alternative per the DCA ranking criteria listed in Sections 4.2.1 through 4.2.7 of the *FS/CAP*.

## EIM

Electronic submittal of all sampling data into Ecology's Electronic Environmental Information Management (EIM) database is a requirement. A no further action letter issued by Ecology will be released only after the data has been submitted to EIM. Suzan Pool (email [suzan.pool@ecy.wa.gov](mailto:suzan.pool@ecy.wa.gov), or via telephone at 360-255-5573) is Ecology's contact and resource on entering data into EIM.

To date, none of the Site data has been entered. Ecology recognizes the difficulty of manually entering data from historical hard copy reports into EIM. Therefore, we request that the consultant determine the earliest date that electronic laboratory data are available and upload data from that date forward into EIM.

Additional information regarding EIM can be found at: <https://ecology.wa.gov/Research-Data/Data-resources/Environmental-Information-Management-database>.

## 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 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).

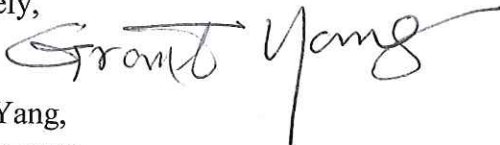
**Contact Information**

---

Thank you for choosing to clean up the Site 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](http://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 (425) 649-7126 or e-mail at [grant.yang@ecy.wa.gov](mailto:grant.yang@ecy.wa.gov).

Sincerely,



Grant Yang,  
Site Manager  
Toxics Cleanup Program, NWRO

Enclosures (2): A - Description and Diagrams of the Site; B - References

ecc: John Foxwell, APEX  
Sonia Fernandez, Ecology, TCP/NWRO

## **Enclosures A Description and Diagrams of the Site**

### **Site Description**

*This enclosure provides Ecology's understanding and interpretation of Site conditions and forms part of the basis for the opinion expressed in the letter.*

**Site:** The Site is located at 7601 Evergreen Way B4, Everett, WA (**Enclosure A, Figure 2**), with chemicals of concern (COCs) consisting of tetrachloroethene (PCE) in Soil and PCE, trichloroethene (TCE), naphthalene, and chloroform in Ground Water. The Site is located on Snohomish County tax parcel number 072805-3-067-0000.

**Area and Property Description:** The Property is located within Cascade Plaza in Everett (**Enclosure A, Figure 1**), which occupies a total of approximately 19.3 acres. Cascade Plaza is currently covered by five retail/offices buildings, a gas service station and parking lots. The surrounding land is mixed use commercial and residential properties.

**Property History and Current Use:** Prior to the 1950's, the Site was used as residential and a drive-in-movie theater, and was redeveloped as a shopping mall in the 1980's. Classic Cleaners operated at the tenant space of Unit B004 in the plaza from the early 1980's to 1999 (**Enclosure A, Figure 2**). Unit B004 is currently occupied by a Domino's pizza franchise.

**Source of Contamination:** Contamination of chlorinated solvents and other chemicals was confirmed at the Site. These impacts occurred to soil and ground water over time through releases from operation of the former dry cleaner facility on the Property.

**Physiographic Setting:** The Site is located in the central Puget Sound Lowland, which is a north-south trough lying from the Canadian Border south to near Chehalis, Washington, and between the Olympic Mountains to the west and the Cascade Mountains to the east.

**Surface/Storm Water System:** The closest surface water to the Site is the Beverly Lake, which is approximately 1,000 feet to the north-west. Surface water and storm water runoff on and in the vicinity of the Site disperse via sheet flow to the City storm water drainage system.

**Ecological Setting:** The surface of the Property is mostly occupied by the commercial buildings and residential houses, and paved with cement or asphalt with little or no habitat.

**Geology:** The Site and vicinity are underlain by Quaternary age Vashon glacial till. Vashon till, a late Pleistocene unit, is a poorly-sorted glacial deposit which is moderately homogenous. Glacial till deposits typically consist of an unsorted, unstratified, highly compacted mixture of clay, silt, sand, gravel, and boulders deposited by glacial ice, inter-bedded with stratified sand, silt and gravel. The materials range to depths of more than 20 feet below the ground surface (bgs).

**Ground Water:** Ground water was encountered on the Site from approximately 7 to 11 feet bgs. The ground water flows to the north-east direction.



**Water Supply:** Public water supply is currently provided to the Site by the City. Based on Ecology's well log database, there are no private water supply wells located within approximately 1,000 feet of the Property.

**Releases and Extent of Contamination in Soil and Ground Water:**

1. Following an initial environmental site assessment conducted in 1997 at the former dry cleaner facility, multiple phases of the remedial investigations (RI) were performed to further characterize contamination in soil, ground water, and soil vapor from 2002 and 2016.
2. Based on the latest RI report (February 16, 2017), PCE was identified as the only Chemical of Concern (COC) in 16 soil samples. Contamination in the samples was at concentrations ranging from 0.001 to 0.023 milligrams per kilogram (mg/kg), below the MTCA Method A cleanup level of 0.05 mg/kg.

The samples were collected at locations within the building footprint of the cleaner shop, at various depths from 1 foot to 9 feet below ground surface (bgs). The degradation products of PCE had not been detected.

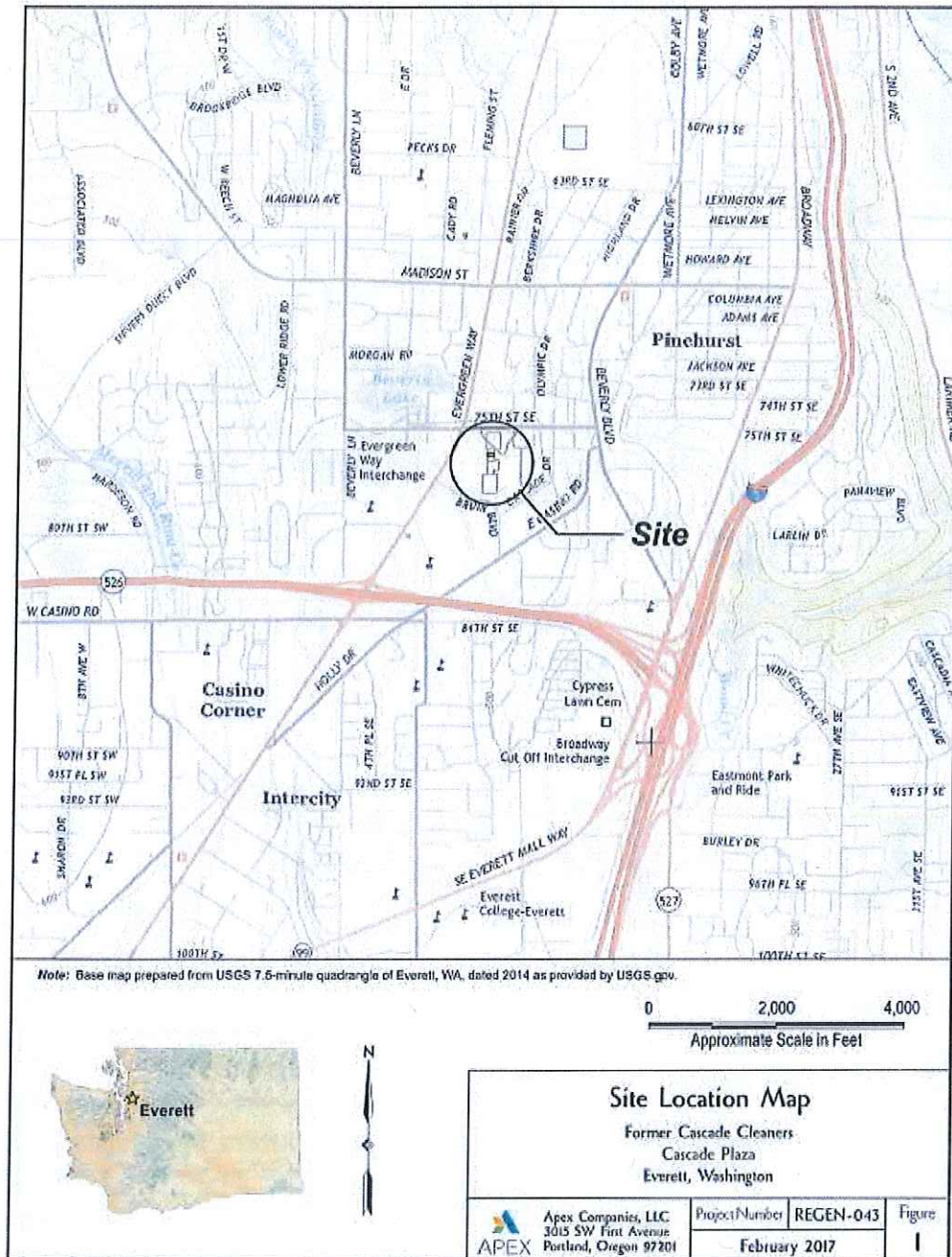
3. At least 11 ground water sampling activities were conducted between 1999 and 2016. Ground water samples were collected from four monitoring wells (WM1, -2, -3 and -4) to analyze for the halogenated volatile organic compounds. The laboratory results indicated that PCE, trichloroethene and naphthalene were detected at levels either below the laboratory detected or the MTCA Method A cleanup levels in all the sampling events.
4. Soil vapor samples were collected to study the vapor status in October 2013 within the footprint of the dry cleaner shop. Four (VS-1, -2, -3 and -4) of 15 samples were detected at concentrations exceeding the MTCA Method B soil vapor screening level ( $9.6 \mu\text{g}/\text{m}^3$ ). The exceedences ranged from 990 to  $3,600 \mu\text{g}/\text{m}^3$  at a depth of three feet below bgs.
5. Two additional Tier II soil vapor intrusion investigations were performed in 2014 and 2016. The reports indicated that vapor concentrations in three samples collected at the depth of three feet bgs beneath or near the dry cleaner shop exceeded the MTCA Method B soil vapor intrusion screening level ( $321 \mu\text{g}/\text{m}^3$ ). The analytical results ranged from 5,600 to  $10,000 \mu\text{g}/\text{m}^3$ .

However, three indoor and ambient-air analyses performed in 2013, 2014 and 2016 did not show exceedance above the vapor intrusion screening level at the targeted study area.



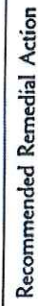
# Site Diagrams

## Figure 1 Location of the Site









## **Enclosure B**

### **References**

1. APEX, October 31, 2019, FS/CAP Cascade Plaza, Everett, Washington.
2. Department of Ecology, October 6, 2017, Opinion Pursuant to Request for Further Action at Classic Cleaners Everett, VCP No. NW2745.
3. APEX, February 16, 2017, Results of 2016 Sampling Activities.
4. Department of Ecology, April 20, 2016, Opinion Pursuant to Request for Remedial Action at Classic Cleaners Everett, VCP No. NW2745.
5. APEX, February 3, 2016, Data Gap Site Investigation – Classic Cleaners – Cascade Plaza.
6. APEX, July 21, 2015, Site Investigation Report – Classic Cleaners – Cascade Plaza.
7. APEX, August 12, 2014, Site Investigation Work Plan – Classic Cleaners – Cascade Plaza.
8. APEX, June 9, 2014, Progress Report – Classic Cleaners – Cascade Plaza.
9. Department of Ecology, September 18, 2013, Opinion Pursuant to Request for Remedial Action at Classic Cleaners Everett, VCP No. NW2745.