STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
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August 18, 2015

Mr. Steve Lazoff
Endolyne Gardens, LLC
2143 N. Northlake Way, #C-1
Seattle, WA 98103

Re: Opinion Pursuant to WAC 173-340-515(5) on Proposed Remedial Action for the Following Hazardous Waste Site:

- **Name:** 45th Avenue SW Apartments
- **Address:** 9212 45th Avenue SW, Seattle, WA
- **Facility/Site No.:** 71883959
- **VCP No.:** NW2809
- **Cleanup Site ID No.:** 10264

Dear Mr. Lazoff:

Thank you for submitting documents regarding your proposed remedial action for the **45th Avenue SW Apartments** facility (Site) for review by the Washington State Department of Ecology (Ecology) under the Voluntary Cleanup Program (VCP). Ecology appreciates your initiative in pursuing this administrative option for cleaning up hazardous waste sites under the Model Toxics Control Act (MTCA), Chapter 70.105D RCW.

This letter constitutes an advisory opinion regarding a review of submitted documents/reports pursuant to requirements of MTCA and its implementing regulations, Chapter 70.105D RCW and Chapter 173-340 WAC, for characterizing and addressing the following releases at the Site:

- Total gasoline-range petroleum hydrocarbons (TPHg), total oil-range petroleum hydrocarbons (TPHo), tetrachloroethylene (PCE), lead, and benzene, toluene, ethylbenzene, and xylenes (BTEX) in Soil;

- TPHg, BTEX, lead and naphthalene in Ground Water.

Ecology is providing this advisory opinion under the specific authority of RCW 70.105D.030(1)(i) and WAC 173-340-515(5).

This opinion does not resolve a person's liability to the state under MTCA or protect a person from contribution claims by third parties for matters addressed by the opinion. The state does

not have the authority to settle with any person potentially liable under MTCA except in accordance with RCW 70.105D.040(4). The opinion is advisory only and not binding on Ecology.

Ecology's Toxics Cleanup Program has reviewed the following information regarding your proposed remedial actions:

1. GeoTech Consultants (GeoTech), *Removal of Underground Storage Tanks, 14-Unit Apartment Building, 9212 45th Avenue SW, Permit No. 645073, Seattle, WA,* September 5, 1989.

2. GeoTech, *Closure Report: Underground Storage Tanks, 14-Unit Apartment Building, 9212-45th Avenue SW, Seattle, WA,* December 5, 1989.

3. Terracon, *Phase I Environmental Site Assessment Report, Endolyne Garden, 9212 and 9214 45th Avenue SW, King County Parcel No. 234670-0000, Seattle, King County, WA* , December 9, 2013.

4. Ecology, *Opinion Letter, 45th Avenue SW Apartments, 9212 45th Avenue SW, Seattle, WA, Facility/Site No. 71883959, VCP No. NW2809, Cleanup Site ID No. 10264,* March 11, 2014.

5. Farallon Consulting, L.L.C., *Scope of Work Limited Soil Investigation, Endolyne Garden Apartments, 9212 45th Avenue SW, Seattle, WA,* July 21, 2014.

6. Ecology, *Opinion Letter, 45th Ave SW Apartments, 9212 45th Avenue SW, Seattle, WA, Facility/Site No. 71883959, VCP No. NW2809, Cleanup Site ID No. 10264,* October 10, 2014.

7. Farallon Consulting, L.L.C., *Limited Subsurface Investigation – Summary of Results, Endolyne Garden Apartments, 9212 45th Avenue SW, Seattle, WA,* May 1, 2015.

8. Farallon Consulting, L.L.C., *Summary Work Plan,* May 19, 2015.

The reports listed above will be kept in the Central Files of the Northwest Regional Office of Ecology (NWRO) for review by appointment only. Appointments can be made by calling the NWRO resource contact at (425) 649-7235 or sending an email to nwro_public_request@ecy.wa.gov.

The Site is defined by the extent of contamination caused by the following releases:

- TPHg, TPHo, PCE, lead, and BTEX in Soil;

- TPHg, BTEX, lead and naphthalene in Ground Water.

The Site is associated with King County tax parcel 2346700000 which is comprised of 0.22 acres of land at 9212 45th Avenue SW in Seattle, WA (Property). The Property is located east of 24th Avenue SW and north of SW Wildwood Place. The Property is currently in use as a 14-unit apartment complex and a restaurant. The Property was historically used as a gas station and for automotive repair from prior to 1940 to approximately 1989. Six underground storage tanks (USTs) were removed from various portions of the Property in 1989. Two of the USTs were reportedly used to store oil, and four were used to store leaded gasoline. The dispensation of the rest of the former Property structures is unknown. TPHo and BTEX were detected at concentrations above MTCA in soil samples collected during the tank removal activities, and TPHg and BTEX have been detected at concentrations above MTCA in ground water. Additional data collection has been proposed (Figure 1).

Based on a review of supporting documentation listed above, pursuant to **requirements contained in MTCA and its implementing regulations, Chapter 70.105D RCW and Chapter 173-340 WAC, for characterizing and addressing the following releases at the Site, Ecology has determined:**

- The additional proposed sampling will provide valuable information for further characterization of the Site, and to assist in characterizing the Site. However, depending on the results of this phase of investigation, additional work may need to be performed to determine the vertical and lateral extent of contamination in soil and ground water at the Site. In addition, Ecology cannot comment on the data quality objectives, field methodology, or other aspects of the proposed work because a work plan was not provided.

- Ground water monitoring wells need to be installed at the locations of the greatest detections of COCs in ground water, as well as downgradient to determine extent. Therefore, proposed monitoring well MW-3 should be re-located so as to be adjacent to B-2 and MW-1 relocated to be adjacent to B-3. The location of MW-2 should be distant enough from MW-1 and MW-3 to assist with evaluating ground water flow direction. Once the flow direction is determined, additional wells will likely be needed to determine the extent of impacted ground water away from and downgradient of the source areas near B-2 and B-3.

  As noted in Ecology's October 10, 2014, letter, all ground water samples collected at the Site should be analyzed for TPHg, TPHo, and TPHd, with appropriate follow-up analysis according to Table 830-1 of the MTCA regulation and following the requirements of Table 7.2, page 95, in the ***Guidance for the Remediation of Petroleum Contaminated Sites*** issued by Ecology as Publication No. 10-09-057, September 2011. Because PCE was detected in a soil sample, all ground water samples collected at the Site should be sampled for volatile organic compounds (VOCs) until PCE can be shown to not be a COC for ground water at the Site.

MTCA Method A cleanup levels may not be appropriate for this Site. Because Fauntleroy Creek runs through the Site, cleanup levels must consider the ground water to surface water pathway. A thorough evaluation of Applicable or Relevant and Appropriate Requirements (ARARs), potential exposure pathways and receptors and potential cleanup levels (including surface water) needs to be performed for the Site. In addition, a Terrestrial Ecological Evaluation (TEE) per WAC 173-340-7490 is needed to determine if cleanup levels that are protective of terrestrial species are applicable to the Site. A TEE form can be found at http://www.ecy.wa.gov/programs/tcp/vcp/vcp2008/vcpForms.html. All exposure pathways must be considered, and cleanup levels developed to be protective of these pathways. Method B cleanup levels for direct contact are not appropriate for this Site because of the presence of ground and surface water beneath and adjacent to the Site.

- Upon completion of the proposed activities, a Remedial Investigation (RI) report that summarizes all data from current and previous investigations and discusses the nature and extent of contamination in all media must be provided. The RI must provide:

    - Summaries of the former Site uses that could have resulted in releases, including history and locations of tanks and service areas in text and on figures.

    - Plan-view graphics and cross-sections showing the extent of Site contamination relative to current and former Site features, parcel boundaries, Site geology, subsurface utilities, and points of compliance.

    - A complete description and interpretation of geologic and hydrogeologic conditions for and in the vicinity of the Site.

    - All boring logs discussed with the RI evaluation and appended to the RI.

    - Summary tables presenting all compounds that have been detected in each media throughout the history of the Site, and the proposed cleanup level for each compound.

  An annotated outline of an RI Report is presented in **Enclosure A** to provide an understanding of Ecology's expectations for conducting and documenting the RI.

This opinion does not represent a determination by Ecology that a proposed remedial action will be sufficient to characterize and address the specified contamination at the Site or that no further remedial action will be required at the Site upon completion of the proposed remedial action. To obtain either of these opinions, you must submit appropriate documentation to Ecology and request such an opinion under the VCP. **This letter also does**

not provide an opinion regarding the sufficiency of any other remedial action proposed for or conducted at the Site.

Please note that this opinion is based solely on the information contained in the documents listed above. Therefore, if any of the information contained in those documents is materially false or misleading, then this opinion will automatically be rendered null and void.

The state, Ecology, and its officers and employees make no guarantees or assurances by providing this opinion, and no cause of action against the state, Ecology, its officers or employees may arise from any act or omission in providing this opinion.

Again, Ecology appreciates your initiative in conducting independent remedial action and requesting technical consultation under the VCP. As the cleanup of the Site progresses, you may request additional consultative services under the VCP, including assistance in identifying applicable regulatory requirements and opinions regarding whether remedial actions proposed for or conducted at the Site meet those requirements.

If you have any questions regarding this opinion, please contact me at (425) 649-7257 or by email at masa461@ecy.wa.gov.

Sincerely,

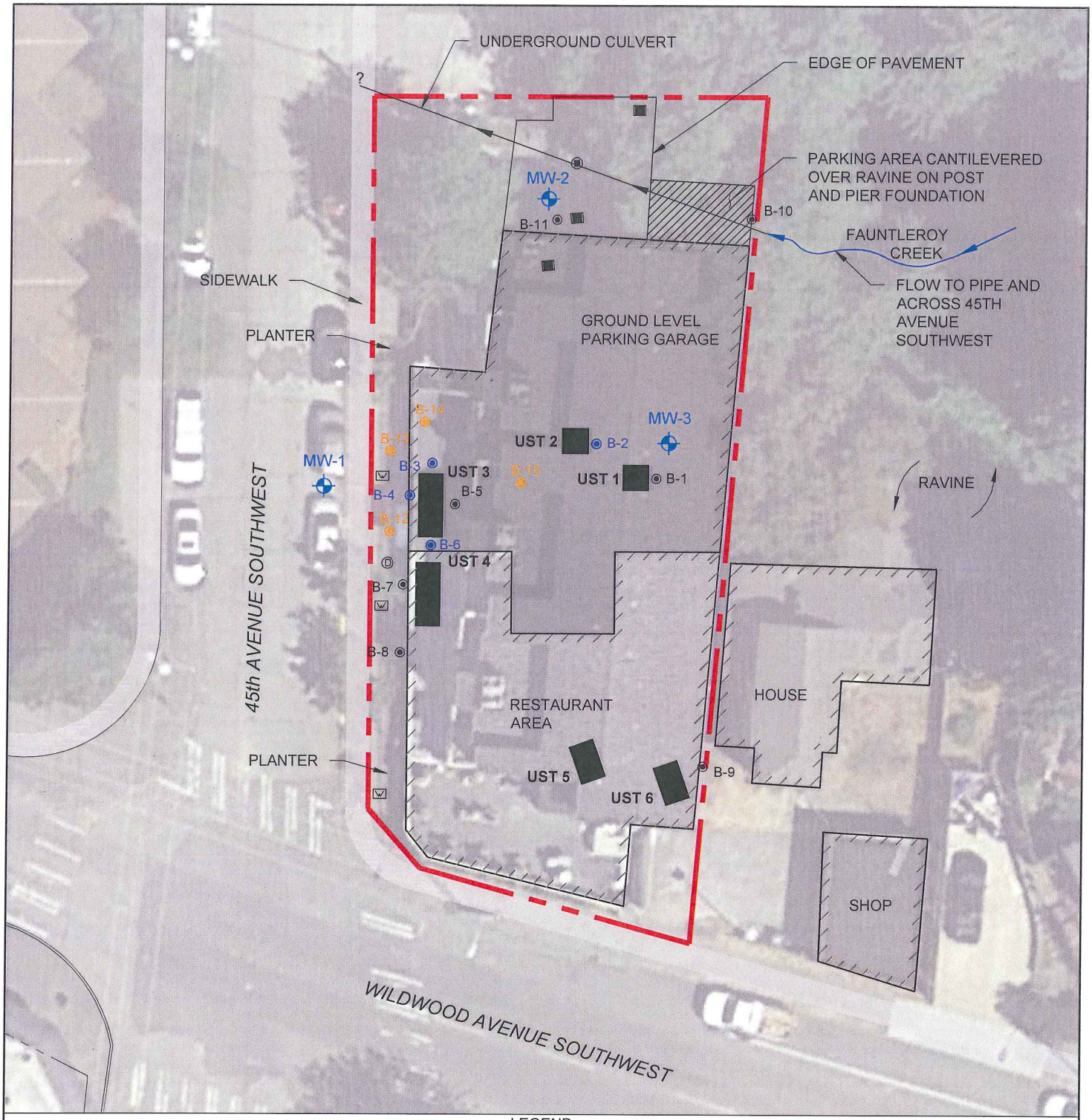
Maureen Sanchez
Site Manager
Toxics Cleanup Program

Enclosures: A: Site Diagram
B: Remedial Investigation Outline

cc: Thaddeus Cline, Farallon Consulting, L.L.C., Inc.
Sonia Fernandez, VCP Coordinator, Ecology

Enclosure A

Site Diagram



LEGEND

- B-13 — PROPOSED RECONNAISSANCE SOIL BORING
- B-3 — BORING LOCATION WITH RECONNAISSANCE GROUNDWATER SAMPLE
- B-1 — BORING LOCATION
- CATCH BASIN
- MANHOLE
- WATER METER
- DRAIN
- PROPERTY BOUNDARY
- BUILDING FOOTPRINT
- MW-1 — PROPOSED MONITORING WELL
- FORMER UNDERGROUND STORAGE TANK
- PARKING GARAGE

ALL LOCATIONS ARE APPROXIMATE

0 30
Scale in feet

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Washington
Issaquah | Bellingham | Seattle

Oregon
Portland | Bend

California
Oakland | Sacramento | Irvine

FIGURE 1

PROPERTY PLAN
ENDOLYNE GARDEN APARTMENTS
9212 45TH AVENUE SOUTHWEST
SEATTLE, WASHINGTON

FARALLON PN: 1295-001

Drawn By: DJR | Checked By: DEW | Date: 5/11/2015 | Disk Reference: 1295-001_00

Enclosure B

Remedial Investigation Outline

DEPARTMENT OF ECOLOGY
NORTHWEST REGIONAL OFFICE
REMEDIAL INVESTIGATION OUTLINE
MTCA VCP SITES

The following annotated outline is a suggested schematic for elements to be included in a Remedial Investigation report. It is not intended to replace MTCA's specific requirements as presented in 173-340-350(7) WAC.

The main purpose of the outline is to facilitate the preparation of a document that is clear, comprehensive, and to the point. A secondary, but important, purpose is to make document preparation and review more efficient.

INTRODUCTION *(Concise, bulleted if possible)*

- **Site name, VCP number, Name, address, and phone number of project consultant, Current owner/operator**
- **Purpose of document** *(very brief restatement of what an RI is for, reference the WAC)*

SITE IDENTIFICATION AND LOCATION *(Focus on defining the site in the context of its location)*

- **Site discovery and regulatory status** *(describe how the site was identified and where it is in the MTCA process)*
- **Site and property location/definition** *(define actual MTCA site location relative to property or study area)*
- **Neighborhood setting**

Figure – Vicinity Map *(preferably with topography)* Figure – Property/Site Map *(preferably with topography)* Appendix – Legal description of property, present owner and operator, chronological listing of past owners and operators

ENVIRONMENTAL INVESTIGATION/INTERIM ACTION SUMMARY *(Concise summary presentation of the investigations that have been done at the site, along with prior remedial actions. Focused mostly on figures and tables. Details of and methods used in former investigations and remediation in appendices)*

- **Constituents of Concern** *(brief discussion about which specific compounds were chosen for analysis and why)*
- **Soil**
- **Surface water**
- **Ground water**
- **Sediment**
- **Air/soil vapor**

- **Natural resources/wildlife**
- **Cultural history/archeology**
- **Interim actions** *(brief intro to prior remediation activities)*

Figure – Soil investigation data points *(show potential source areas)*
Figure – Surface water/groundwater investigation data points *(show potential source areas)*
Figure – Air investigation data points *(show potential source areas)*
Figure – Prior remediation activities

Table – Exploration Summary
Table – Analytical Schedule per media *(include analytical methods and reporting limits, as possible)*

Appendix – Previous Investigations *(detailed discussion goes here)*
Appendix - Exploration and sampling methodology *(may combine with Previous Investigations)*
Appendix – Boring / Well logs
Appendix - Prior Interim Actions

PROPERTY DEVELOPMENT AND HISTORY *(This section focuses on the built environment, both current and historical, and presents the sources of contamination and release mechanisms.)*

- **Past site uses and facilities**
- **Current site use and facilities**
- **Proposed or potential future site uses**
- **Zoning** *(if appropriate)*
- **Transportation/roads**
- **Utilities, water supply**
- **Potential sources of site contamination**
- **Potential sources of contamination from neighboring properties** *(discuss nearby sources if known)*

Figure – Historical site features *(may be combined with Figure 2)*
Figure – Potential contaminant sources
Figure – Utilities *(may be combined with Figure 2)*

Table – Potential Contaminants

NATURAL CONDITIONS

- **Physiographic setting/topography**
- **Geology** *(focus on interpretation)*

- Regional Setting *(brief)*
- Property Geologic Conditions *(synthesis, not a copy of boring logs, provide cross sections)*
- Physical Properties *(unlikely to need this section, but in some cases may be useful to present data on soil adsorptive capacity, organic content, strength, etc.)*

Figure – Plan view of geologic unit distribution *(if helpful)* Figure - Cross section A-A' *(show borings, wells, screened intervals, water levels)* Figure – Cross section B-B' *(if necessary)*

- **Surface Water** *(brief description of the surface water system)*

  - Property drainage
  - Area surface water/floodplain issues
  - Regulatory classifications, if any *(e.g. surface water classification)*

Figure – Surface water Conditions *(only if information not already in a prior figure)*

- **Ground Water** *(focus on interpretation, show on cross sections)*

  - Occurrence *(aquifers, water levels, confinement, geometry, continuity, physical properties)*
  - Movement *(directions, gradient if important, seasonal fluctuations, tidal influence)*
  - Discharge
  - Recharge *(if significant for site)*
  - Regulatory classifications, if any *(e.g. sole source aquifer)*

Figure – Cross section with ground water information *(if not already included above)* Figure – Water table/potentiometric surface maps *(for various seasons or tidal conditions, show surface water)* Appendix – Ground water elevation data *(a table)*

- **Natural Resources and Ecological Receptors** *(preparatory to a Terrestrial Ecological Evaluation)*

  - Greenbelts and other natural habitat
  - Wildlife
  - Other Information required to conduct evaluations under WAC 173-340 -7491, -7492, or if necessary -7493

Figure – showing natural areas, as appropriate

CONTAMINANT OCCURRENCE AND MOVEMENT *(Very little text, mostly figures and tables, main point is to provide easy-to-understand figures showing the depth and breadth of contamination.)*

- **Waste Material** *(sludges, fluids, stockpiles)*
- **Soil**
- **Surface Water**
- **Ground Water**
- **Sediment**
- **Air/Soil Vapor**

Figures – Cross sections showing soil contamination with depth
Figures – Plan views showing soil contamination across site *(relative to releases if known)*
Figures – Cross section showing ground water contamination with depth *(if appropriate)*
Figures – Plan views showing ground water contamination in each aquifer *(relative to soil contamination and P-head map)*
Figures – XY plots of specific contaminants with time *(as appropriate)*
Figures – Others as appropriate to show the distribution of surface water, ground water, or air data

Tables – All of the analytical data against final cleanup levels *(exceedances highlighted, no need to develop screening levels)*
Tables – Summary of exceedances *(if helpful)*

Appendix – QA report
Appendix – Analytical lab reports

CONCEPTUAL MODEL *(Putting the whole story together, graphic illustrations are best.)*

- **Contaminant release/fate and transport/potential or actual receptors**
- **Data gaps** *(is anything missing)*

CLEANUP STANDARDS *(Developing appropriate cleanup standards based on receptors and pathways.)*

- **Soil**
    - Reasonable maximum exposure
    - Cleanup levels protective of direct contact, ground water, inhalation, terrestrial species, surface water, sediment
    - Points of compliance
    - Regulatory classifications *(classification of soil as dangerous or solid waste)*

- **Ground Water**

    - Highest beneficial use/reasonable maximum exposure
    - Cleanup levels protective of potable use, inhalation, surface water, sediment
    - Points of compliance

- **Other Media as appropriate**

    - Cleanup levels protective of ….
    - Points of compliance

Table – Cleanup Levels *(all potentially applicable values with final selected cleanup level noted)*

AREAS REQUIRING CLEANUP *(The final story detailing where the contamination exceeds an applicable cleanup standard, brief text, mostly tables, figures.)*

- **Constituents of Concern** *(a brief summary of compounds that exceed cleanup levels or "indicator hazardous substances" under MTCA. For most service station sites, the COCs should be the same)*
- **Soil – vertical and lateral**
- **Ground water – vertical and lateral**
- **Sediment**
- **Surface Water**
- **Soil Vapor/air**

Figures – Plan view and vertical sections of areas requiring cleanup

REFERENCES

Revised 8/21/14