



CLEANUP ACTION PLAN

Texaco Strickland Site

Prepared for: Washington State Department of Ecology

Prepared by: Aspect Consulting (a Geosyntec Company)
on behalf of Strickland Real Estate Holdings, LLC and
Chevron Environmental Management Company

Project No. 180357 • August 4, 2025 PUBLIC REVIEW DRAFT

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Acronyms

AO	Agreed Order
ARAR	Applicable or relevant and appropriate requirement
Aspect	Aspect Consulting
BETX	benzene, ethylbenzene, toluene and xylenes
Bgs	Below ground surface
CEMC	Chevron Environmental Management Company
CFR	Code of Federal Regulations
CMS	Conceptual site model
COC	Contaminants of concern
cPAHs	Carcinogenic polycyclic aromatic hydrocarbons
CRA	Conestoga-Rovers & Associates
CUL	Cleanup level
DCA	Disproportionate cost analysis
DOH	Washington State Department of Health
EA	Environmental Associates, Inc.
Ecology	Washington Department of Ecology
EDB	1,2-dibromoethane
EDC	1,2-dichloroethane
EHD	Environmental Health Disparities
EPA	U.S. Environmental Protection Agency
FS	Feasibility Study
HEAL	Healthy Environmental Act for All
ISB	In Situ Bioremediation
ISCO	In Situ Chemical Oxidation
LNAPL	Light non-aqueous phase liquid
µg/m ³	micrograms per cubic meter
MNA	Monitored Natural Attenuation

MTBE	Methyl tert-butyl ether
MTCA	Model Toxics Control Act
NFA	No Further Action
NPV	Net present value
PCBs	polychlorinated biphenyls
PLIA	Washington State Pollution Liability Insurance Agency
PLPs	Potentially liable parties
PVI	Petroleum vapor intrusion
RAO	Remedial action objectives
RCW	Revised Code of Washington
RI/FS	Remedial Investigation/Feasibility Study
SREH	Strickland Real Estate Holdings, LLC
SVE	soil vapor extraction
TAP	Technical Assistance Program
TEE	Terrestrial Ecological Evaluation
TPH	Total petroleum hydrocarbons
TPHd	Diesel total petroleum hydrocarbons
TPHg	Gasoline total petroleum hydrocarbons
TPHo	Oil-range total petroleum hydrocarbons
UGS	US Geological Survey
UIC	Underground Injection Control
U.S.C.	United States Code
UST	Underground storage tank
VOC	volatile organic compound
WAC	Washington Administrative Code

Executive Summary

Aspect Consulting, a Geosyntec company (Aspect) has prepared this Cleanup Action Plan (CAP) for the Texaco Strickland Site (the Site), located at 6808 196th Street SW in Lynnwood, Washington (the Property).

Two potentially liable parties (PLPs), Strickland Real Estate Holdings, LLC (SREH) and Chevron Environmental Management Company (CEMC), entered into Agreed Order No. 14315 (the AO) with the Washington State Department of Ecology (Ecology) on August 28, 2018. On December 14, 2020, Ecology named Jiffy Lube International, Inc. (Jiffy Lube) as a third PLP for the Site. Jiffy Lube has not participated in any of the work discussed in this report.

In 2022, an interim cleanup action was performed at the Site resulting in the excavation and off-site disposal of soil contamination exceeding unrestricted cleanup levels (CULs) within the Property boundary to the extent practicable. A limited amount of soil contamination exceeding unrestricted CULs was left in place in the public right-of-way along the northern Property boundary and at depth (greater than 15 feet deep) along the western Property boundary. However, these residual soil impacts do not pose a risk to groundwater or air quality based on subsequent compliance monitoring results and current Property use. Soil contamination associated with the Jiffy Lube Site was fully removed during the Interim Action excavation (see Section 3.2.1).

In 2025 a Feasibility Study (FS) was completed to evaluate final remedial alternatives for the Site, including a screening of potentially applicable remedial technologies, development of remedial alternatives, and a disproportionate cost analysis (DCA) in accordance with WAC 173-340-360. The FS selected engineering and institutional controls in the form of capping and an environmental covenant as the final permanent to the maximum extent practicable (PMEP) cleanup alternative. For reference, the FS was prepared concurrently with this CAP under separate cover for public review.

This CAP summarizes the subsequent confirmation monitoring activities performed since the Interim Action, reviews the updated conceptual site model (CSM) for the Site post-Interim Action, briefly recaps the evaluation of remedial alternatives presented in the FS, and presents the final remedy that was selected for the Site. The final remedy of capping and an environmental covenant is described in Section 7. This remedy is expected to satisfy the AO for cleanup of the Site and result in a no further action (NFA) opinion from the Washington State Department of Ecology (Ecology).

1 Introduction

Aspect Consulting, a Geosyntec company (Aspect), has prepared this Cleanup Action Plan (CAP) for the Texaco Strickland Site (the Site) located at 6808 196th Street SW in Lynnwood, Washington (the Property). The Site location is shown on Figure 1.

Under the Washington State Model Toxics Control Act (MTCA), a Site is defined as any area where a hazardous substance has been deposited, stored, disposed of, placed, or otherwise come to be located as the result of a release (Washington Administrative Code [WAC] 173-340-200). This Site was previously defined by the extent of petroleum hydrocarbons and related volatile organic chemicals (VOCs) in soil, groundwater, and vapor as described in the Remedial Investigation (RI) Report for the Site (Aspect, 2023a).

This Site is identified in Ecology's cleanup site database as the Texaco Strickland Site, Cleanup Site ID 12541, Facility ID 27496218, and underground storage tank (UST) site ID 6802. Contamination associated with the Site was previously considered to be commingled with contamination associated with another site located on the Property known as the Jiffy Lube Store 2068 (the Jiffy Lube Site; Cleanup Site ID 5805).

Two potentially liable parties (PLPs), Strickland Real Estate Holdings, LLC (SREH) and Chevron Environmental Management Company (CEMC), entered into Agreed Order No. 14315 (the AO) with the Washington State Department of Ecology (Ecology) on August 28, 2018. On December 14, 2020, Ecology named Jiffy Lube International, Inc. (Jiffy Lube) as a third PLP for the Site. Jiffy Lube has not participated in any of the work discussed in this report.

In 2022, an interim cleanup action was performed at the Site resulting in the excavation and off-site disposal of soil contamination exceeding MTCA Method A CULs to the extent practicable (Interim Action; Aspect, 2023b). A limited amount of soil contamination exceeding Method A CULs was left in place in the public right-of-way along the northern Property boundary and at depth (greater than 15 feet deep) along the western Property boundary. However, these residual soil impacts do not pose a risk to groundwater or air based on subsequent compliance monitoring results and current Property use.

In 2025 a Feasibility Study (FS) was completed to evaluate final remedial alternatives for the Site, including a screening of potentially applicable remedial technologies, development of remedial alternatives, and a disproportionate cost analysis (DCA) in accordance with WAC 173-340-360. The FS selected engineering and institutional controls in the form of capping and an environmental covenant as the final permanent to the maximum extent practicable (PMEP) cleanup alternative. For reference, the FS was prepared concurrently with this CAP under separate cover for public review.

1.1 Purpose and Objective

This CAP summarizes the subsequent confirmation monitoring activities performed since the Interim Action, reviews the updated conceptual site model (CSM) for the Site post-Interim Action, briefly recaps the evaluation of remedial alternatives presented in the FS, and presents the final remedy that was selected for the Site. The objective of this work is to obtain a no further action (NFA) opinion from the Washington State Department of Ecology (Ecology).

2 Background

The following section includes general information, history and use of the Property, and a description of the current geologic setting following the Interim Action.

2.1 Property History and Description

The Property is zoned as commercial and identified by Snohomish County Parcel Number 27042000200600. Based on the construction date of the service station building, the Property was first developed in approximately 1959. A review of historical documents has established the following operational history for the Site (Conestoga-Rovers & Associates [CRA], 2011; Aspect, 2019; Aspect, 2020):

- 1959 to 1977 – Texaco-branded Service Station:** The Property was initially developed with a Texaco-branded service station in 1959. Based on construction drawings, the service station consisted of two 4,000-gallon leaded gasoline USTs; one 6,000-gallon leaded gasoline UST; a single pump island with three pumps; associated product conveyance piping; an in-ground vehicle hoist; a 550-gallon used oil UST; and a 1,000-gallon heating oil UST.

The three gasoline USTs were decommissioned and removed when the Property was converted to a Jiffy Lube/Equilon Lube oil facility in 1977 (Aspect, 2020). The 550-gallon waste oil and 1,000-gallon heating oil USTs remained in place until the 2022 Interim Action excavation when all remaining USTs on the Property were removed (Aspect, 2023b).

- 1977 to 2006 – Jiffy Lube/Equilon Lube Facilities:** In 1977, the Property was converted to an oil change and lube facility, which operated continuously until approximately 2006. During this time, two additional USTs were installed on the Property. According to Ecology’s UST database, a 500-gallon used oil UST and a 3,000-gallon motor oil UST were installed in June of 1982. In 1995, these two USTs were decommissioned: the 500-gallon used oil UST was closed in place, and the 3,000-gallon motor oil UST was removed. All remaining USTs and soil contamination associated with the Jiffy Lube/Equilon Lube facilities were removed during the Interim Action excavation (Aspect, 2023c).
- 2006 to 2018 – Aloha Café:** In 2006, the building on the Property was renovated into a restaurant, Aloha Café, which operated until 2018.
- 2018 to Present –** The Property was vacated in 2018 to facilitate RI and cleanup activities. In September 2022, the building on the Property was demolished ahead of the Interim Action. Following the Interim Action excavation, the Property was backfilled with clean fill material. The Property is currently a vacant gravel lot.

2.2 Adjacent Property Description

A brief description of relevant historical and current uses of the surrounding properties is included below.

2.2.1 North – Upgradient 68th Center Property

A commercial strip mall is located to the north of the Property across 196th Street SW. This property (tax parcel 27041700307000) was historically occupied by a Shell-branded service station with confirmed releases of petroleum and impacts to soil and groundwater. Shell is pursuing an opinion through the Washington State Pollution Liability Insurance Agency's (PLIA's) Technical Assistance Program (TAP).

2.2.2 East – Edmonds Community College Property

The parcel to the east of the Property (tax parcel 27042000103100), across 68th Avenue West, is currently used as parking for Edmonds Community College. This parcel was previously occupied by an Exxon-branded service station, which had confirmed releases of petroleum hydrocarbons to soil and groundwater. A remedial excavation was conducted on the Property in 2005, and a NFA determination was issued by Ecology in 2007.

2.2.3 West – Strip Mall

The parcel to the west of the Property (tax parcel 27042000200800) is commercially occupied by a strip mall, where a dry cleaner (Slater's One Hour Cleaners) historically operated. According to city directory records, Slater's One Hour Cleaners operated from at least 1971 through at least 2013.

2.2.4 South – Chri-Mar Apartments

The parcels to the south of the Property (tax parcels 27042000201000 and 27042000200900) are occupied by a multi-family residential apartment building and operated as Chri-Mar Apartments. Chlorinated solvents in soil, groundwater, and soil gas were documented on this property as part of the environmental characterization work performed by Environmental Associates, Inc. (EA) on behalf of that property owner (EA, 2016a, 2016b, and 2018). Petroleum hydrocarbons were not detected in soil or groundwater at this property during the EA work in 2016 and 2018; however, benzene was detected in soil gas, indoor air, and outdoor air as part of the work performed by EA (EA, 2016a and 2018). In January 2023, a crawlspace ventilation system was installed at the Chri-Mar Apartment building to mitigate potential risks to indoor air quality during completion of the Interim Action and selection of a final remedy for the Site. The ventilation system was shut down in April 2024 following completion of the Interim Action and is no longer considered necessary based on subsequent performance and confirmation sampling results (see Section 4).

2.3 Geologic and Hydrogeologic Setting

Prior to the Interim Action, Site geology generally consisted of imported fill to depths up to 10 feet below ground surface (bgs) and Vashon till extending to the maximum depth explored at the Site of 40.5 feet bgs. The imported fill extended to depths of approximately 4 to 10 feet bgs and was encountered in all soil borings at the Site during

investigation activities (Aspect, 2023a). Following the Interim Action excavation, imported fill on the Property now extends to depths of up to 28 feet bgs.

Beneath the fill, Vashon till was encountered in all soil borings at the Site during RI activities, which is consistent with the US Geological Survey (USGS) mapped geologic unit of the area (USGS, 1983). The till encountered during subsurface explorations had a variable composition and included silt (MH); sandy silt with gravel (ML); silty sand and silty sand with gravel (SM); sand with silt and sand with silt and gravel (SW/SP-SM); and sand with gravel (SP). The density of the till was consistent across the Site, ranging from medium dense at the fill-till interface and increasing in density to very dense within a few feet below the interface. The top few feet of till appears to have been weathered in place prior to being buried under fill material during redevelopment of the area in the early 20th century (Aspect, 2023a).

The majority of the subsurface explorations conducted during RI activities were completed using a hollow-stem auger drilling rig, and geotechnical information was collected for nearly all borings. Based on the observed blow counts, the weathered, medium dense top of till varied in thickness between 2.5 and 15 feet. The underlying unweathered till is differentiated based on the blow counts and inferred density during drilling. Boring logs from RI activities were provided in the RI Report (Aspect, 2023a).

Following the Interim Action excavation, groundwater is present at the Site in a surficial, unconfined, and potentially perched aquifer. Groundwater is encountered at depths ranging from 4 to 15 feet bgs. Consistent with the RI Report (Aspect, 2023a), groundwater flow at the Site is generally to the southwest, with minor seasonal variation.

3 Summary of Remedial Investigation and Interim Action

Prior to the Interim Action, an RI was completed for the Site in accordance with MTCA and the AO. The RI and Interim Action are briefly summarized in the following sections.

3.1 Remedial Investigation

Based on evaluation of prior environmental investigations and the RI investigation, the contaminated media at the Site included soil, groundwater, and soil gas. Contaminants of concern (COCs) were also detected in indoor air at the Chri-Mar Apartments at that time but considered to be present because of background sources. Site COCs and media of concern were defined in the RI Report as follows:

- Gasoline-, diesel-, and oil-range total petroleum hydrocarbons (TPHg, TPHd, and TPHo, respectively); benzene, toluene, ethylbenzene, and xylenes (BTEX); and naphthalene in soil and groundwater.
- Total petroleum hydrocarbons (TPH), benzene, and naphthalene in soil gas and potentially indoor air.

The nature and extent of contamination at the Site prior to the Interim Action is detailed in the RI Report (Aspect, 2023a). The Site was considered fully characterized with respect to the nature and extent of contamination at the conclusion of the RI, therefore an independent Interim Action was undertaken to remove the source of contamination.

3.2 Interim Action

Between August 2022 and January 2023, a remedial excavation was conducted as part of an independent Interim Action to remove contamination on the Property exceeding applicable CULs to the extent practicable. The results of the Interim Action are documented in the Interim Action Report (Aspect 2023b).

A total of 14,437 tons of petroleum-contaminated soil was permanently removed from the Site and trucked to Cadman's Everett facility as Class III petroleum-contaminated soil for permitted treatment and disposal. The soil removal action was performed to a maximum depth of 28 feet (minimum Elevation 423 feet) and extended to the northern and western Property lines. The previously defined extent of light non-aqueous phase liquid (LNAPL, or free product) was completely removed from the Site. The extent of residual TPH-related impacts in soil exceeding MTCA Method A CULs is shown on Figure 2.

3.2.1 Jiffy Lube Site Cleanup

This section summarizes the characterization and cleanup of the Jiffy Lube Store 2068 Site (Jiffy Lube Site; Cleanup Site ID #5805, Facility ID #27496218), formerly located on the Property. The nature and extent of soil and groundwater contamination associated with the Jiffy Lube Site was characterized during the Texaco Strickland Site RI (Aspect, 2023a). Soil contamination associated with the Jiffy Lube Site was fully removed during the Interim Action excavation in 2022. Soil quality at the final extents of the Interim

Action excavation were below MTCA Method A CULs for TPHo, as verified by the 115 confirmation soil samples collected at the final Interim Action excavation limits (Aspect, 2023b). As a result, an NFA was requested from Ecology for the Jiffy Lube Site in 2023 (Aspect, 2023c) pending confirmation groundwater monitoring results which confirmed compliance with cleanup levels as described in section 3.2.2.

3.2.2 Confirmation Groundwater Monitoring

Following the Interim Action excavation, confirmation groundwater monitoring was conducted at the Site to evaluate protectiveness of residual soil impacts with respect to groundwater. Six new monitoring wells (MW-18R, MW-25R, and MW-29 through MW-32) were installed in July 2023 to establish a post-Interim Action monitoring well network with a total of 11 monitoring wells (Aspect 2023d). Monitoring well locations are shown on Figure 3. For reference, boring logs and well completion diagrams for new monitoring wells are provided in the FS.

Quarterly confirmation groundwater monitoring was conducted from August 2023 through May 2024 at the Site. Groundwater monitoring results were below MTCA Method A CULs for four consecutive quarters. For reference, confirmation sampling results are documented and summarized in the FS.

Groundwater direction at the Site is predominantly to the southwest as illustrated on Figure 3. Depth to water at the Site ranged from approximately 6 to 14 feet bgs (or 433.19 feet to 445.15 feet above sea level) during quarterly confirmation monitoring. Calculated groundwater elevations are documented and summarized in the FS.

4 Chri-Mar Building Ventilation System

Concurrently with the Interim Action, and out of an abundance of caution for public health concerns, a ventilation system was installed at the Chri-Mar apartment building to mitigate potential risks for indoor air quality. The ventilation system was installed in accordance with the Ventilation Work Plan (Aspect, 2023e). Monthly operational monitoring was conducted between February 2023 and April 2024 to confirm the system was maintaining a vacuum below the vapor barrier membrane.

4.1 Performance Monitoring

Performance monitoring of the ventilation system was conducted in September and December 2023 in accordance with the Ventilation Work Plan. The results of indoor, crawlspace, and ambient air sampling were documented in the 4th Quarter 2023 and 1st Quarter 2024 Progress Reports for the Site (Aspect, 2024a and 2024b). The performance monitoring results were consistent with the conclusions in the Ecology-approved RI Report that indoor air exceedances 1) do not correlate with crawlspace exceedances, and 2) are not a result of vapor intrusion from the Site (Aspect, 2023a).

As a result of these performance monitoring results, the ventilation system was shut down in April 2024 to assess air quality under passive conditions post-Interim Action. In accordance with the Ventilation Work Plan, post-shutdown performance monitoring was conducted in June 2024, approximately 6 weeks after turning off the ventilation system.

The results of post-shutdown indoor, crawlspace, and ambient air sampling were documented in the 2nd Quarter 2024 Progress Report for the Site (Aspect, 2024c). The net concentration for TPH in crawlspace air samples exceeded the generic MTCA Method B cleanup level for unrestricted use; therefore, in accordance with Ecology guidance for vapor assessments (Ecology, 2022), the sample with the highest TPH concentration was used to calculate a site-specific Method B air cleanup level for unrestricted use. The resulting site-specific TPH cleanup level was 636 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$). Following correction for background air quality, the net concentrations of BTEX, naphthalene, and TPH in all crawlspace samples were below their respective Method B CULs and the site-specific TPH cleanup level for unrestricted use under passive venting conditions. Indoor air exceedances were limited to benzene and naphthalene and continued to be attributed to background sources within the building as described in the RI Report, not a result of vapor intrusion from the Site.

4.2 Confirmation Monitoring

Based on the results of post-shutdown sampling, there were no impacts to crawlspace or indoor air because of vapor intrusion from the Site. Therefore, the ventilation system remained off. Passive vent confirmation sampling was conducted in September and December of 2024 in accordance with the Ventilation Work Plan to confirm soil gas concentrations within the vent system were below applicable CULs for unrestricted use.

The results of passive vent confirmation sampling are documented and summarized in FS, and further interpreted as follows:

- TPH was not detected above the site-specific unrestricted indoor air cleanup level, the vent sample, nor the ambient outdoor background air samples.
- BTEX and naphthalene were not detected above their respective unrestricted indoor air CULs in the vent sample.
- Benzene and naphthalene were detected ambient outdoor background air samples, which is consistent with historical results and previous assertions that benzene and naphthalene detections in indoor air samples are attributable to background sources.
- There were no detections of any contaminants above their respective unrestricted soil gas screening levels.

4.3 Post-Interim Action Petroleum Vapor Intrusion Assessment

In addition to the confirmation monitoring results described in the previous section, a post-Interim Action petroleum vapor intrusion (PVI) assessment provides an additional line of evidence that there is no longer a risk of PVI for the Chri-Mar apartment building. The building is located outside the prescribed 30-foot lateral inclusion zone from documented residual soil contamination exceeding unrestricted MTCA Method A CULs following the Interim Action excavation (Aspect, 2023b). There are also no longer any groundwater impacts exceeding Method A CULs at the Site. Therefore, there is no longer a risk of PVI for the Chri-Mar apartment building based on Ecology's PVI screening guidance (Ecology, 2022).

5 Conceptual Site Model

This section presents the updated CSM following the Interim Action cleanup activities, including the remaining COCs, nature and extent of residual contamination, and exposure pathway assessment for human health and ecological risks.

5.1 Contaminants of Concern and Affected Media

The remaining COCs retained for the Site are based on the occurrence of chemicals positively identified above MTCA Method A CULs following the Interim Action cleanup and monitoring activities summarized in Sections 3 and 4. The current confirmed COCs for this Site based on this criterion are TPHg, BTEX, and naphthalene in soil.

Groundwater is no longer retained as an affected media based on the results of confirmation groundwater monitoring documented in Section 3.2.2.

Soil gas is retained as a potentially affected media due to residual soil contamination exceeding unrestricted cleanup levels at the Site. However, air (including indoor air) is not retained based on the results of confirmation ventilation system monitoring discussed in Section 4.2.

For reference, TPHd and TPHo have not been detected at the Site above cleanup levels following the Interim Action cleanup activities (Aspect 2023b). Additionally, lead, 1,2-dibromoethane (EDB), 1,2-dichloroethane (EDC), methyl tert-butyl ether (MTBE), polychlorinated biphenyls (PCBs), and carcinogenic polycyclic aromatic hydrocarbons (cPAHs) were previously eliminated as potential COCs during the RI (Aspect, 2023a).

5.2 Nature and Extent of Contamination

This section describes the updated nature and extent of contamination at the Site based on the confirmation soil, groundwater, and vapor data collected since the Interim Action cleanup activities were completed.

5.2.1 Soil Impacts

As described in Section 3.2, residual soil impacts exceeding unrestricted Method A CULs following Interim Action cleanup activities are present in two areas of the Site:

1. TPHg, BTEX, and naphthalene remains in-place within the public right-of-way to the north of the Property boundary at a depth of approximately 4 to 9 feet bgs.
2. Low concentrations of benzene only remain in-place along the western Property boundary at a depth of approximately 16 to 25 feet bgs (below the seasonal low water table).

The extent of soil impacts is shown on Figure 2. Detailed analytical results were provided in the Interim Action Report (Aspect 2023b).

5.2.2 Groundwater Impacts

Based on the results of confirmation monitoring conducted at the Site following completion of the Interim Action, there are no impacts to groundwater exceeding MTCA

Method A CULs. Therefore, groundwater is no longer considered an affected media at the Site.

5.2.3 Vapor Impacts

Based on the results of confirmation monitoring conducted for the Chri-Mar apartment building following completion on the Interim Action, there are no impacts to soil gas or indoor air exceeding applicable Method B CULs for unrestricted use.

Based on the lateral distribution of residual soil impacts exceeding Method A CULs at the Site, there is one other commercial building to the west of the Property located within the prescribed 30-foot lateral inclusion zone for consideration of PVI. However, given the depth of the soil impacts along the western Property boundary (over 15 feet bgs and below the water table) the building screens out for further PVI assessment based on vertical separation distance and a lack of soil impacts in the vadose zone (Ecology, 2022).

There currently aren't any further concerns for vapor impacts to air at the Site based on the current Property condition and use. The Property is a vacant gravel parking lot. The potential for vapor impacts will need to be considered if the Property is redeveloped.

5.3 Exposure Pathway Assessment

The two primary exposures associated with the presence of the COCs at the Site are human health and terrestrial ecological risk. The nature and extent of COCs in the affected media at a Site determines the potential exposure scenarios for both.

The potential exposure pathways that may affect human health are through contact with soil, groundwater, and vapor. The following sections provide a description of the potential exposure pathways considered in this assessment.

5.3.1 Soil Exposure Pathways

The two potential exposure pathways for soil are direct contact and leaching to groundwater as follows:

- Direct-contact exposure pathway:** The direct-contact exposure pathway considers both dermal contact and ingestion of soil at the Site, to a maximum depth of 15 feet bgs. Residual soil impacts exist above unrestricted CULs at a depth of 4 to 9 feet within the public right-of-way to the north of the Property. However, the right-of-way remains capped with pavement for the sidewalk and roadway. While there is no risk of direct contact with residual soil impacts for the general public, there is a low risk of exposure for construction workers that may perform utility work in the right-of-way.
- Soil leaching-to-groundwater transport pathway:** The soil leaching-to-groundwater transport pathway requires consideration of the highest beneficial use of groundwater at the Site in accordance with WAC 173-340-357(3)(d). The highest potential beneficial use of groundwater at the Site is drinking water. The highest potential use of groundwater at this Site is drinking water. Confirmation groundwater monitoring results following the Interim Action cleanup activities provide an empirical demonstration that the soil leaching-to-groundwater

transport pathway is incomplete. Additionally, shallow residual soil impacts above the water table in the public right-of-way are capped with an impervious surface, which prevents soil leaching. Therefore, the risk of transport via the soil leaching-to-groundwater pathway is considered low and this transport pathway is considered incomplete.

5.3.2 Groundwater Exposure Pathways

The two potential exposure pathways for groundwater are groundwater-ingestion and groundwater-to-surface water as follows:

- **Groundwater-ingestion exposure pathway:** This groundwater exposure pathway considers ingestion of groundwater at the Site. The groundwater ingestion exposure pathway is considered incomplete and there is no risk of exposure for the following reasons:
 - There are no groundwater impacts exceeding Method A cleanup levels for unrestricted use based on confirmation groundwater monitoring results following Interim Action cleanup activities.
 - Potable water for the Property and surrounding properties is served by a municipal water supply.
 - DOH maintains a database of public drinking water wells/systems. DOH records list no such drinking water wells within a mile radius of the Property (DOH, 2025).
- **Groundwater-to-surface water transport pathway:** Surface water not present on or in the vicinity of the Site. Additionally, there are no groundwater impacts exceeding Method A cleanup levels for unrestricted use based on confirmation groundwater monitoring results following Interim Action cleanup activities. Therefore, there is no risk of transport via the groundwater-to-surface water pathway and the pathway is considered incomplete.

5.3.3 Vapor Exposure Pathway

The vapor exposure pathway considers exposures to volatilized soil gas from chemicals dissolved in groundwater, sorbed to soil particles, or separate LNAPL (free product) in the subsurface. Residual soil impacts at the Site remain above unrestricted CULs at a depth of 4 to 9 feet within the public right-of-way to the north of the Property and at a depth of 16 to 25 feet along the western Property boundary. However, there are no buildings located within prescribed lateral and/or vertical screening distances for PVI (see Sections 4.3 and 5.2.3). Therefore, the vapor exposure pathway is considered incomplete and there is no risk of exposure based on current Property conditions. The potential for vapor exposure will need to be reevaluated if the Property is redeveloped with structures that encroach on areas of residual soil impacts exceeding unrestricted CULs.

5.4 Terrestrial Ecological Evaluation

The purpose of the Terrestrial Ecological Evaluation (TEE) is to assess the potential risk to terrestrial plants and/or animals that live entirely or primarily on affected land. This Site qualifies for a TEE exclusion under WAC 173-340-7491 (1)(c); "...there is less than 1.5 acres of contiguous undeveloped land on or within 500 feet of any area of the Site." A copy of the TEE form documenting this exclusion was previously provided in the Ecology-approved RI Report for the Site (Aspect, 2023a).

6 Cleanup Requirements

This section presents the cleanup standards by which evaluation of the final remedy will be measured. The areas to be addressed by remedial action(s) are also recapped below.

6.1 Applicable or Relevant and Appropriate Requirements

The most applicable or relevant and appropriate requirement (ARAR) for the Site is Ecology's MTCA CULs and regulations that address the implementation of a cleanup under MTCA (Chapter 173.105D Revised Code of Washington [RCW]; Chapter 173-340 WAC). Other potential ARARs include:

- Federal Clean Water Act (33 U.S. Code [U.S.C.] 1251)
- Federal Water Quality Standards (40 CFR Part 131)
- Occupational Safety and Health Act (29 Code of Federal Regulations [CFR] Subpart 1910.120)
- Water Pollution Control (Chapter 90.48 RCW)
- Water Resources Act of 1971 (Chapter 90.54 RCW)
- Water Quality Standards for Surface Waters of the State of Washington (Chapter 178-201A WAC)
- Hazardous Waste Management (Chapter 70.105 RCW)
- Dangerous Waste Regulations (Chapter 173-303 WAC)
- Solid Waste Management Reduction and Recycling (Chapter 70.95 RCW)
- Washington Industrial Safety and Health Act (Chapter 49.17 RCW)
- Archaeological Sites and Resources (Chapter 27.53 RCW)
- Washington Clean Air Act (Chapter 70.94 RCW)
- State Environmental Policy Act (Chapter 43.21C RCW, Chapter 173-802 WAC, and Chapter 197-11 WAC)
- Minimum Standards for Construction and Maintenance of Wells (Chapter 173-160 WAC)
- Underground Injection Control (UIC) Program (Chapter 173-218 WAC)
- Puget Sound Clean Air Agency Regulations (<http://www.pscleanair.org>)
- Permits from local municipalities, as required, for activities at the Site; examples include City of Lynnwood demolition, tree clearing, grading, and street use or right-of-way permits.

6.2 Cleanup Standards

Cleanup actions conducted in accordance with MTCA must comply with cleanup standards for the identified COCs and affected media as well as ARARs based on federal

and state laws (WAC 173-340-710). Cleanup standards for the Site include establishing CULs and the points of compliance at which those CULs will be attained in soil, groundwater, and air. The following presents a discussion of recommended cleanup levels and points of compliance for the Site based on the nature and extent of contamination and exposure risks following the Interim Action cleanup activities.

6.2.1 Cleanup Levels

The CULs for affected media at the Site are:

- **Soil.** MTCA Method A CULs for unrestricted use, except where empirical demonstration is used to demonstrate protection of groundwater.
- **Groundwater.** MTCA Method A CULs for protection of drinking water as a beneficial use.
- **Air.** MTCA Method B CULs for unrestricted use, including the site-specific cleanup level for TPH (636 µg/m³; see Section 4.1). Cleanup levels may be adjusted for a commercial scenario in accordance with WAC 173-340-750, if appropriate.

6.2.2 Points of Compliance

The standard points of compliance have been selected for the Site as:

- **Soil for protection from direct contact.** Ground surface to a depth of 15 feet bgs.
- **Soil for protection of groundwater.** Throughout the Site.
- **Groundwater for protection of drinking water.** Extending vertically from the upper-most depth of the saturated zone to the lowest depth potentially affected.
- **Air for protection from inhalation.** Ambient and indoor air throughout the Site.

When it is not practicable to achieve CULs in soil at the standard points of compliance, the cleanup action may involve containment of hazardous substances. In accordance with WAC 173-340-740(6)(f), remedies involving containment may still be determined to comply with cleanup standards, provided:

1. The selected remedy is permanent to the maximum extent practicable.
2. The cleanup action is protective of human health and the environment.
3. Appropriate institutional controls, including compliance monitoring and periodic reviews, are implemented.

6.3 Areas Requiring Remediation

Following Interim Action cleanup activities, the only area of the Site not currently in compliance with these cleanup standards is the residual soil impacts in the public right-of-way to the north of the Property at a depth of approximately 4 to 9 feet bgs (Figure 2). Soil impacts remaining in the vadose zone (above the water table) in this area exceed unrestricted Method A CULs and pose a potential PVI risk for future redevelopment of the Property. Additionally, if the existing pavement cap is removed in the right-of-way, the residual impacts could pose a risk to construction workers through direct contact.

7 Description of Final Remedy

This section presents the elements of the final remedy selected to address the area requiring remediation at the Site (Section 6.3).

7.1 Cleanup Action Alternatives and Analysis

A detailed evaluation of remedial alternatives is provided in the FS, including a screening of potentially applicable remedial technologies, development of remedial alternatives, and DCA in accordance with WAC 173-340-360. The FS selected engineering and institutional controls in the form of capping and an environmental covenant as the final PMEP cleanup alternative.

7.2 Remedial Action Objectives

Remedial action objectives (RAOs) for the Site are intended to comply with ARARs and protect human health and the environment. Based on the potential exposure pathways and areas requiring remediation at the Site, the following RAOs have been established for the remedial alternatives being considered for Site

- Protection from soil impacts in the vadose zone leaching to groundwater;
- Protection from direct contact with soil impacts; and
- Protection from inhalation of vapors from soil impacts in the vadose zone.

7.3 Engineering Controls

The area of residual soil contamination in the right-of-way is already paved with an impervious surface, however maintaining the existing impervious cap as an engineering control is required to ensure protection of the direct contact exposure pathway and prevent potential for leaching to groundwater until such a time that future redevelopment or reassessment supports removal of the capping requirement.

7.4 Institutional Controls

An environmental covenant will restrict future land use in the affected area of the right-of-way and on the Property to ensure protection of the direct contact and the potential vapor intrusion exposure pathways, unless further assessment of the vapor pathway is completed during future changes in land use to ensure that conditions remain protective of future redevelopment scenarios. The covenant will also incorporate the capping and compliance monitoring requirements for the Site.

7.5 Compliance Monitoring Requirements

Compliance monitoring requirements will include annual inspections to confirm land use has not changed and ensure the cap remains in place. An example cap inspection form is provided in Appendix A for reference. Ecology will perform periodic reviews on a 5-year review interval.

As there are no ongoing compliance monitoring requirements for groundwater, the monitoring wells at the Site will be decommissioned in accordance with WAC 173-160-

460. The 12 monitoring well locations that will be decommissioned in place are shown on Figure 3.

7.6 Schedule for Implementation

Areas of residual soil impacts at the Site are already capped with impervious pavement. Preparation of the environmental covenant can be completed for review within 60 days of regulatory approval of this CAP. Upon public recording of the environmental covenant, it is anticipated that Ecology will issue a Site NFA opinion for the Texaco Strickland Site.

7.7 Restoration Timeframe

In consideration of the overall effectiveness of the Interim Action, and with the approval of this final remedy, the restoration timeframe for the Site would be considered effective immediately upon recording of the environmental covenant.

7.8 Public Participation

This public review draft of the CAP will be distributed by Ecology for public review and comment. Ecology will include a deadline for review and comment at the time of the public notice.

8 References

- Aspect Consulting, LLC (Aspect), 2020, Remedial Investigation Work Plan Addendum, Texaco Strickland Cleanup Site, 6808 196th Street Southwest, Lynnwood, Washington. Dated May 28, 2020.
- Aspect Consulting, LLC (Aspect), 2023a, Agency Review Draft Remedial Investigation Report, Texaco Strickland Cleanup Site, 6808 196th Street Southwest, Lynnwood, Washington. Dated July 14, 2023.
- Aspect Consulting, LLC (Aspect), 2023b, Interim Action Report, Texaco Strickland Site. Dated April 26, 2023.
- Aspect Consulting, LLC (Aspect), 2023c, Cleanup Action Memorandum, Jiffy Lube Store 2068 Site. Dated September 21, 2023.
- Aspect Consulting, LLC (Aspect), 2023d, Sampling Analysis Plan for Groundwater Monitoring, Texaco Strickland Cleanup Site, 6808 196th Street Southwest, Lynnwood, Washington. Dated August 11, 2023.
- Aspect Consulting, LLC (Aspect) 2023e, Ventilation Work Plan, Texaco Strickland Site, draft dated January 6, 2023.
- Aspect Consulting, LLC (Aspect), 2024a, Progress Report No. 21 – 4th Quarter 2023, Texaco Strickland Cleanup Site, 6808 196th Street Southwest, Lynnwood, Washington. Dated January 22, 2024.
- Aspect Consulting, LLC (Aspect), 2024b, Progress Report No. 22 – 1st Quarter 2024, Texaco Strickland Cleanup Site, 6808 196th Street Southwest, Lynnwood, Washington, Dated April 10, 2024.
- Aspect Consulting, LLC (Aspect), 2024c, Progress Report No. 23 – 2nd Quarter 2024, Texaco Strickland Cleanup Site, 6808 196th Street Southwest, Lynnwood, Washington, Dated July 25, 2024.
- Conestoga-Rovers & Associates (CRA), 2011, Remedial Investigation Report, Former Jiffy Lube Facility, 6808 196th Street Southwest, Lynnwood, Washington. August 17, 2011.
- Environmental Associates, Inc. (EA), 2016a, Limited Subsurface Sampling & Testing, Chri-Mar Apartments, 19618-19628 68th Avenue West, Lynnwood, Washington. February 19, 2016.
- Environmental Associates, Inc. (EA), 2016b, Limited Air Sampling and Testing, Chri-Mar Apartments, 19618-19628 68th Avenue West, Lynnwood, Washington. March 22, 2016.
- Environmental Associates, Inc. (EA), 2018, Well Installation and Soil Boring Report, Chri-Mar Apartments, 19618-19628 68th Ave West, Lynnwood, Washington. October 24, 2018.

United States Geologic Survey (USGS), 1983, Geologic Map of the Edmonds East and Part of the Edmonds West Quadrangles, Washington.

Washington State Department of Ecology (Ecology) 2022, Guidance for Evaluating Soil Vapor Intrusion in Washington State: Investigation and Remedial Action, Publication No. 09-09-047. Dated DRAFT, October 2009; Revised February 2016, April 2018, and November 2021; and FINAL March 2022.

Washington State Department of Ecology (Ecology), 2025, Guidance for Determining if a Cleanup Action uses Permanent Solutions to the Maximum Extent Practicable using Disproportionate Cost Analysis, Public Comment Draft, Publication 25-09-059, February 2025.

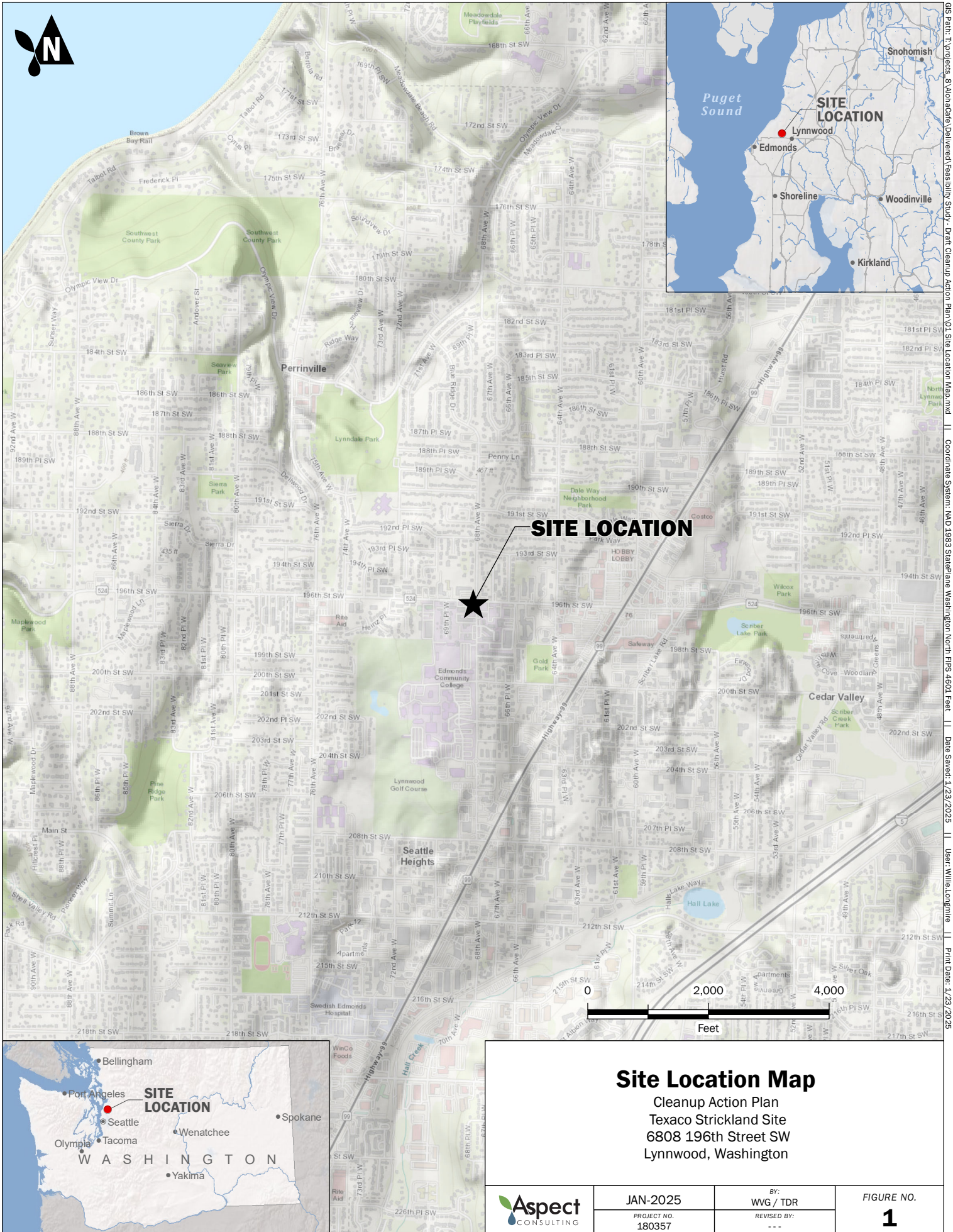
Washington State Department of Health (DOH), 2025, Source Water Assessment Program (SWAP) Mapping Tool, <https://fortress.wa.gov/doh/eh/maps/SWAP/index.html>, Accessed March 5, 2025.

9 Limitations

Work for this project was performed for Strickland Real Estate Holdings, LLC (Client), and this report was prepared in accordance with generally accepted professional practices for the nature and conditions of work completed in the same or similar localities, at the time the work was performed. This report does not represent a legal opinion. No other warranty, expressed or implied, is made.

All reports prepared by Aspect Consulting for the Client apply only to the services described in the Agreement(s) with the Client. Any use or reuse by any party other than the Client is at the sole risk of that party, and without liability to Aspect Consulting. Aspect Consulting's original files/reports shall govern in the event of any dispute regarding the content of electronic documents furnished to others.

FIGURES



GIS Path: I:\Projects_8\Alumachale\Deliverables\Facilities_Study - Draft Cleanup Action Plan\GIS Site Location Map.mxd || Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet || Date Saved: 1/23/2025 || User: Willie Longmire || Print Date: 1/23/2025

Site Location Map

Cleanup Action Plan
Texaco Strickland Site
6808 196th Street SW
Lynnwood, Washington



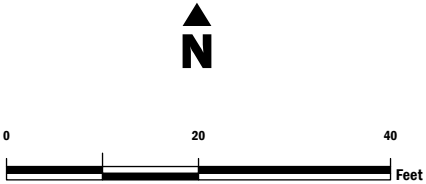
JAN-2025
PROJECT NO.
180357

BY:
WVG / TDR
REVISED BY:

FIGURE NO.
1



- Existing Monitoring Well
- Extents of Soil Exceeding Cleanup Levels
- Previous Interim Action Excavation Area
- Property Boundary
- Snohomish County Tax Parcel



**Extent of Post-Interim Action
Soil Impacts**

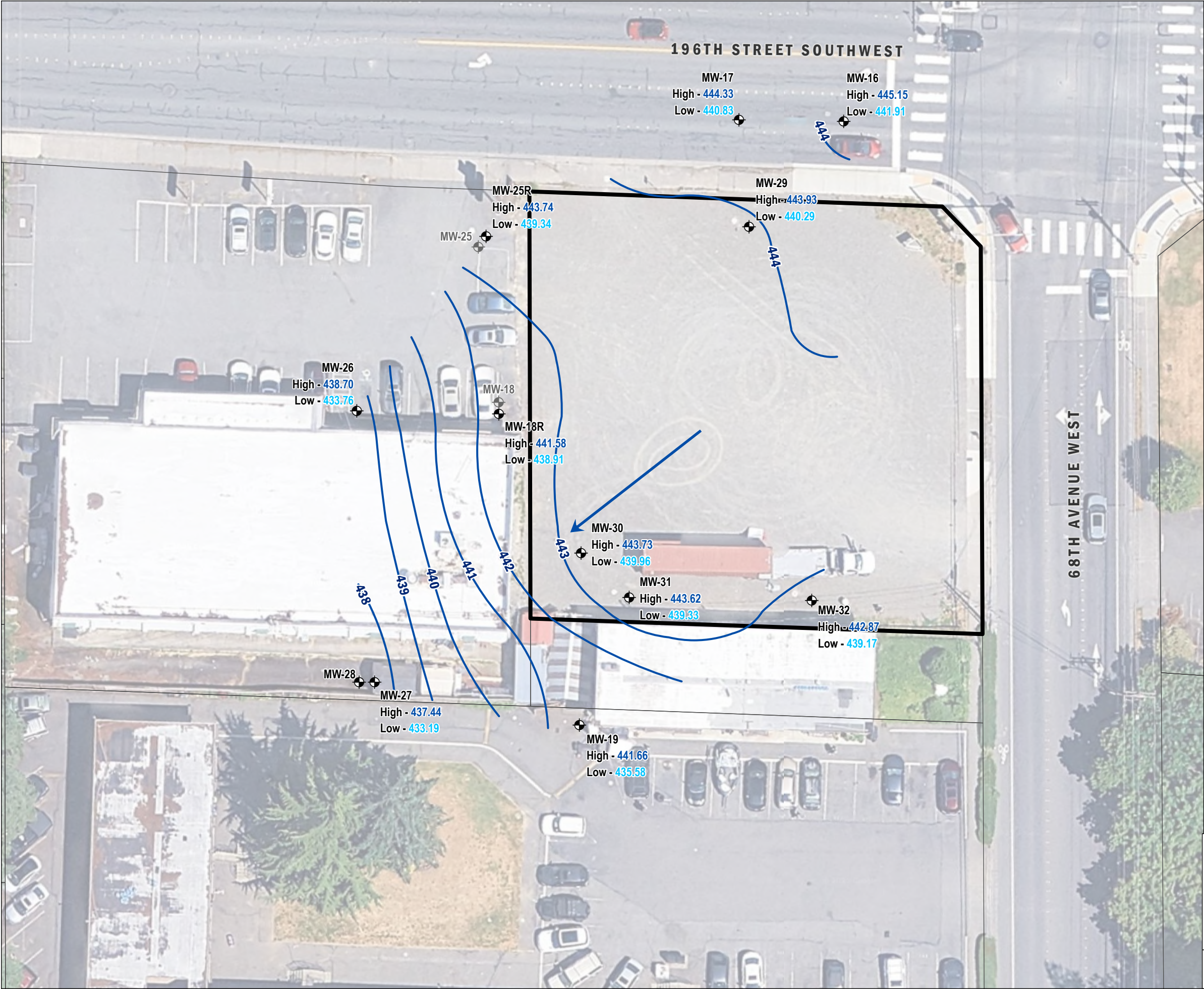
Cleanup Action Plan
Texaco Strickland Site
6808 196th Street SW
Lynnwood, Washington



APR-2025
PROJECT NO.
180357

BY:
DRB / HMD
REVISED BY:
---/---

FIGURE NO.
2



Monitoring Well (Existing)

Monitoring Well (Decommissioned)

Groundwater Contour

Flow Direction

Subject Property

Snohomish County Tax Parcel

Note:

- Groundwater contours based on February 2024 monitoring event

N

0

30

60

Feet

Sample Name

MW-32

High - 442.87

Low - 439.17

Seasonal High Groundwater Elevation

Seasonal Low Groundwater Elevation

Confirmation Groundwater Monitoring Locations and Flow Direction

Cleanup Action Plan
Texaco Strickland Site
6808 196th Street SW
Lynnwood, Washington

Aspect
CONSULTING

APR-2025

PROJECT NO.
AS180357A

BY:
DRB / NLK

REVISED BY:
HMD

FIGURE NO.

3

Data source credits: DRB / NLK | | Basemap Service Layer Credits: © OpenStreetMap (and) contributors, CC-BY-SA

OS Path: T:\projects_8\Aspen\6808_180357A\03 Confirmation Groundwater Monitoring Locations | User: hmd\hmd | Print Date: 4/7/2025

APPENDIX A

Cap Inspection Form

Cap Inspection Form

Date: _____

Project Name: _____

Inspector's Name: _____

Project No.: _____

Inspector's Signature: _____

Weather Conditions: _____ Inspector's Title/Affiliation: _____

INSPECTION RECORD

INSPECTION ITEM	YES	NO	COMMENTS/NOTES
1. Property Cover			
a. Any modifications since last inspection?			
b. Evidence of landscaping or gravel modifications?			
c. Evidence of soil disturbance?			
2. Paved Areas Cover			
a. Any pavement modifications since last inspection?			
b. Evidence of pavement disturbance, damage, or open cracks?			
c. Evidence of surface spills or standing water?			
d. Photos taken for Items #1-2?			

Deficient Action Items & Other Comments: