



STATE OF WASHINGTON  
**DEPARTMENT OF ECOLOGY**

PO Box 47600, Olympia, WA 98504-7600 • 360-407-6000

November 2, 2022

Waiman Lee  
Shared Spaces Foundation  
100 Andover Park Way, Suite 150 #222  
Tukwila, WA 98188

**Re: No Further Action opinion for the following contaminated Site**

Site name: Upper Hudson Street Site  
Site address: 4815 15th Avenue SW Seattle, WA 98106  
Facility/Site ID: 6149702  
Cleanup Site ID: 2597

Dear Waiman Lee:

The Washington State Department of Ecology (Ecology) received your Cleanup Action Report dated September 23, 2022, for the Upper Hudson Street site (Site). This letter provides our opinion regarding the sufficiency of your independent cleanup. We are providing this opinion under the authority of the Model Toxics Control Act (MTCA), Chapter [70A.305](#) RCW.<sup>1</sup>

## Opinion

**Ecology has determined that no further remedial action is necessary to clean up contamination at the Site.**

Ecology bases this opinion on an analysis of whether the remedial action meets the substantive requirements of MTCA and its implementing regulations, which are specified in Chapter 70A.305 RCW and Chapter [173-340](#) WAC<sup>2</sup> (collectively called "MTCA").

## Site Description

This opinion applies only to the Site described below. The Site is defined by the nature and extent of contamination associated with the following release(s):

- Arsenic and lead in soil

---

<sup>1</sup> <https://app.leg.wa.gov/RCW/default.aspx?cite=70A.305>

<sup>2</sup> <https://apps.leg.wa.gov/WAC/default.aspx?cite=173-340>

Enclosure A includes Site description, history, and diagrams.

The Site is located within King Country Parcel No. 284070-005 (the Property), a 3.56 acre irregularly shaped parcel, and on Southwest Edmunds Street right-of-way, north and adjacent to the Property. The Site is located on a forested hilltop approximately 800 feet west of the Lower Duwamish waterway. The Property was occupied by a single-family residence and associated out buildings, located on a clearing within the hilltop forested area. The residence was reportedly constructed in 1956.

Please note that releases from multiple sites can affect a parcel of real property. At this time, Ecology has no information that other sites affect the parcel(s) associated with this Site.

### **Basis for the Opinion**

Ecology bases this opinion on the information contained in the following documents:

- Sound Earth Strategies. *Cleanup Action Report, Upper Hudson Street Property, 4815 15th Avenue Southwest, Seattle, Washington*. September 23, 2022.
- Ecology. Site Hazard Assessment, Worksheet 1, Summary Score Sheet. June 3, 2015.
- Ecology. Letter re: Partial Sufficiency and Further Action Determination under WAS 173-340-515(5) for the following Hazardous Waste Site, Upper Hudson Street Site. June 26, 2006.
- Sesco. *Site Assessment Completion Report, Upper Hudson Street Site*. October 5, 2006.
- Ecology. *Cleanup/Decision Summary, Upper Hudson Street Site*. June 27, 2006.
- Sesco. *Site Assessment Completion Report, Upper Hudson Street Site*. May 18, 2006.
- Sesco. *Excavation Completion Report, Upper Hudson Street Site*. March 6, 2006.

You can request these documents by filing a [records request](#).<sup>3</sup> For help making a request, contact the Public Records Officer at [recordsofficer@ecy.wa.gov](mailto:recordsofficer@ecy.wa.gov) or call (360) 407-6040.

Before making a request, check whether the documents are available at <https://apps.ecology.wa.gov/cleanupsearch/site/2597>.

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

---

<sup>3</sup> <https://ecology.wa.gov/About-us/Accountability-transparency/Public-records-requests>

## **Analysis of the Cleanup**

Ecology has concluded that no further remedial action is necessary to clean up contamination at the Site. Ecology bases its conclusion on the following analysis:

### **Characterizing the Site**

Ecology has determined your completed Site characterization is sufficient for setting cleanup standards and selecting a cleanup action. Enclosure A describes the Site.

Contamination at the Site was characterized through soil sampling and analysis conducted between 1994 and 2006. This included soil sampling from soil borings, test pits, and during excavation remedial actions. The contamination was found to be associated with cement kiln dust (CKD) and battery casings found at the Site. The CKD had been reported as being temporarily stockpiled on the Site between 1968 and 1969. The disposal of battery casings was presumed to have taken place in a similar timeframe. Ecology notes that CKD was used as a fill material in many parts of the Lower Duwamish area. The CKD forms a visually distinctive material and hence the extent of CKD can be established through visual as well as analytical methods.

The extent of soil contamination was defined in 2006 through the collection of 50 soil samples. These include samples from borings, test pits, and excavation floors and sidewalls. As discussed below, all CKD was removed from the Site.

Groundwater was found to occur at a depth greater than 43 feet below ground surface (ft bgs) at location B-2-92 (see Figure 2 in Enclosure A) in the hilltop area near the soil contamination, at a surface elevation of about 130 feet above mean sea level (amsl). Shallow groundwater was observed in geotechnical borings drilled in two locations in downslope areas, at 24 ft bgs at B-7-80 (surface elevation of approximately 117 ft amsl) and at 8 ft bgs at B-8-80 (located near Puget Creek southwest of the Site).

Perched groundwater was observed in one Test Pit (TP-8) at a depth of approximately 4 ft bgs; however, no evidence of soil contamination was found at this location. Ecology concluded in the Cleanup/Decision Summary dated June 27, 2006, "soils only contamination, groundwater not affected". Ecology notes that the soil contamination above Method A cleanup levels were removed in entirety and no evidence of contamination deeper than seven (7) ft bgs were found. Hence, groundwater is not believed to be a media of concern at the Site. Similarly, no basis for surface water or air concerns have been identified at the Site.

## Setting Cleanup Standards

Ecology has determined the cleanup levels and points of compliance you set for the Site meet the substantive requirements of MTCA. The following Method A cleanup levels have been applied at the Site:

**Table 1 – Method A Cleanup Levels for Soil**

Contaminant	Method A Cleanup Level for Soil (mg/kg)
Arsenic	20
Lead	250

### Points of Compliance

The points of compliance are throughout the Site. Cleanup levels based on the direct contact pathway apply to soils to a depth of 15 ft bgs, whereas cleanup levels for the soil-to-groundwater pathway apply without regard to depth. The deepest soil contamination identified was at 7 ft bgs.

### Terrestrial Ecological Evaluation (TEE)

The Site is located within an extensive forested area and potential for wildlife and other ecological receptors is high. Remaining contaminant concentrations in soils following excavation cleanup were compared with MTCA indicator concentrations from MTCA Table 749-3:

**Table 2 – TEE Indicator Concentrations from Table 749-3**

Contaminant	Indicator Concentrations		
	Plants (mg/kg)	Soil Biota (mg/kg)	Wildlife (mg)
Arsenic III	NL	NL	7
Arsenic V	10	60	132
Lead	50	500	118

NL = no indicator concentration listed in Table 749-3.

No arsenic speciation data are available for the Site; however, Ecology considers Arsenic V to likely be the dominate species at the Site. Hence, the indicator concentrations for Arsenic V were used in the following analysis.

The most restrictive TEE-based concentrations for arsenic and lead are 10 mg/kg and 50 mg/kg, respectively. Remaining contaminant concentrations following excavation cleanup were as follows:

**Table 3 – Comparison of Remaining Soil Concentrations with TEE Criteria**

	Arsenic (mg/kg)	Lead (mg/kg)
Most Restrictive TEE Concentration	10	50
Puget Sound Background	7.3	24
Maximum	18.9	130
Mean	6.4	25
Percent below TEE– Plants <sup>1</sup>	83%	85%
Percent below TEE – Soil Biota <sup>1</sup>	100%	100%
Percent below TEE – Wildlife <sup>1</sup>	100%	98%

<sup>1</sup> = Percent of samples with remaining concentrations less than the specified TEE criteria.

Based on the percentage of remaining soil samples with exceedances of TEE-based criteria, risks to ecological receptors from remaining contamination are relatively low. Hence, Ecology concludes that no further actions to address the TEE pathway are warranted at the Site. This conclusion has been made based on WAC 173-340-360 (2), WAC 173-340-7493(3), and WAC 173-340-7493(3)(g).

### **Selecting the cleanup action**

Ecology has determined the cleanup action you selected for the Site meets the substantive requirements of MTCA. Excavation and off-Site disposal was selected as the preferred cleanup action at the Site. Excavation and off-Site disposal is considered to be the most permanent solution under MTCA. Ecology concurs with the selection of this alternative for cleanup at the Site.

### Implementing the cleanup action

Ecology has determined your cleanup meets the standards set for the Site. Excavation cleanup at the Site took place during the following phases:

**Table 4 – Summary of Excavation Phases**

<b>Area of Excavation</b>	<b>Time Period of Excavation</b>	<b>Soil Removed</b>
CKD Area	Jan-Feb 2006	2,767 tons
CKD Area	April 2006	178 tons
Battery Casing Area	April 2006	198 tons
CKD and Battery Casing (TP-13 and TP-16)	September 2006	20 cubic yards

Confirmation sampling of excavation sidewalls and floors was conducted following each phase of excavation. This resulted in subsequent additional excavation work at locations where confirmation sampling results were greater than Method A cleanup levels. The battery casing areas was discovered during the first phase of excavation in early 2006 and contamination in this area was removed in April and September 2006.

In addition to the confirmation sampling, test pits were conducted throughout the area to verify the extent of CKD in soils. No CKD was found in the surrounding areas.

Ecology issued a partial sufficiency letter in June 2006, following the first three phases of cleanup. That letter indicated that further cleanup was needed at location TP-13 and TP-16, and further characterization for potential CKD was needed in areas to the south identified as “Inaccessible – pallets with concrete” and “Inaccessible – area with debris” (Sesco - Figure 1; Enclosure A). The September 2006 work included removal of the remaining contamination, confirmation soil sampling, and verification of the lack of CKD in the inaccessible areas. Hence, the data gaps identified by Ecology in June 2006 were filled.

No contamination is known to remain at the Site above the Method A cleanup level, and as discussed above, risks from remaining contamination above TEE criteria are considered low. Therefore, no further cleanup actions are needed at the Site.

## Listing of the Site

Based on this opinion, Ecology will initiate the process of removing the Site from its lists of contaminated sites, including the:

- Hazardous Sites List
- Confirmed and Suspected Contaminated Sites List

That process includes providing public notice and the opportunity to comment. Based on the comments received, Ecology will either remove the Site from the applicable lists or rescind this opinion.

## Limitations of the Opinion

### 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 [70A.305.040](https://app.leg.wa.gov/RCW/default.aspx?cite=70A.305.040)(4).<sup>4</sup>

### 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 [70A.305.080](https://app.leg.wa.gov/RCW/default.aspx?cite=70A.305.080)<sup>5</sup> and WAC [173-340-545](https://apps.leg.wa.gov/WAC/default.aspx?cite=173-340-545).<sup>6</sup>

---

<sup>4</sup> <https://app.leg.wa.gov/RCW/default.aspx?cite=70A.305.040>

<sup>5</sup> <https://app.leg.wa.gov/RCW/default.aspx?cite=70A.305.080>

<sup>6</sup> <https://apps.leg.wa.gov/WAC/default.aspx?cite=173-340-545>

Waiman Lee  
November 2, 2022  
Page 8

**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 [70A.305.170](#)(6).<sup>7</sup>

**Questions**

If you have any questions about this opinion, please contact me by phone at (509) 424-0543 or email at [frank.winslow@ecy.wa.gov](mailto:frank.winslow@ecy.wa.gov).

Sincerely,



Frank P. Winslow, LHG  
Cleanup Site Manager  
Headquarters Section

fpw:af

Enclosures (1):        A – Site Description, History, and Diagrams

cc:     Lesley Man, Cardiff Investments LLC  
       Ryan Bixby, SoundEarth

---

<sup>7</sup> <https://app.leg.wa.gov/RCW/default.aspx?cite=70A.305.170>



# Enclosure A

---

Site Description, History, and Diagrams

## Site Description

**Site:** The Site is defined by arsenic and lead in soil. The Site is associated with releases from cement kiln dust (CKD) and battery casings that had been historically placed on the Property.

**Area and Property Description:** The Site is associated with King County Parcel No. 2840700005 (the Property), an irregular-shaped, 3.56-acre parcel, and the adjacent Southwest Edmunds Street right-of-way. The Property is located at 4815/4818 15th Ave SW in Seattle, approximately three miles south of downtown Seattle. The Property is on a forested hilltop located approximately 800 feet west of the Duwamish River and is bound by Puget Way SW to the west and Southwest Edmunds Street right-of-way to the north. The SW Edmunds Street right-of-way is undeveloped.

The Property has one house and associated outbuildings including a large greenhouse structure. Beyond Puget Way SW to the west and southwest is Puget Park, a large forested area. Other rural residential properties are located to the north of SW Edmunds Street right-of-way. To the east of the Property is additional City of Seattle right-of-way and commercial business on the west side of West Marginal Way SW.

The Property is at an elevation of approximately 130 feet above mean sea level (amsl) and slopes steeply to the east, south, and southwest. The slope to the east drops 100 feet over a distance of approximately 200 feet. The Duwamish River to the east is at an elevation of approximately 8 ft amsl, based on the Google Earth™ digital elevation model.

**Site History:** The following Site history discussion is from the Cleanup Action Report:

*The Property was initially developed with a single-family residence in 1956. Residential tenants have occupied the building from 1956 to the present day. By 1965, the forested land north of the residence on the Property was clear cut, exposing an open field on the Property. Between 1968 and 1969, the northern portion of the Property was used as a staging area for the regrading of Puget Park with CKD from the Ideal Basic Industries cement plant. CKD was stockpiled on the Property during this time.*

**Sources of Contamination:** CKD with elevated arsenic concentrations was reported to have been temporarily stockpiled on the Property in 1968 to 1969. Not all CKD was evidently removed at that time, since CKD was found on the Site during later investigations and cleanup work. Battery casings that resulted in lead in soil were discovered during excavation cleanup work in 2006. The battery casings were believed to have been likely placed concurrent with the CKD.

A separate area of arsenic soil contamination was identified off-Site to the west in 1994. That area is designated “McFarland Lobe” (see Figure 2; Enclosure A). The data from the 1994 investigation appears to indicate that the contamination is limited to the Puget Park site (CSID 3076), and does not appear to impact the Property.

**Physiographic Setting:** The Site is located in Seattle, Washington, approximately 800 feet west of the Duwamish River. The Site is in an area of undulating glacial terrain within the Puget Lowland Physiographic Province. The Site is at an elevation of approximately 130 ft amsl and slopes steeply to the east, south, and southwest. An intermittent creek that drains into the Duwamish River is located across Puget Way SW to the west and south of the Site.

**Surface/Storm Water:** Stormwater is expected to generally radiate from the Site to the southwest, south, and east, down the steep slopes surrounding the Property. Stormwater is generally expected to infiltrate within the forested areas that surround the Site. The nearest surface water bodies are the Duwamish River and the intermittent stream located approximately 400 feet west and south of the Site. Risks to surface water from the Site contamination are considered low.

**Ecological Setting:** The Site is in a forested area with high potential for wildlife and ecological receptors. The Terrestrial Ecological Evaluation (TEE) analysis is discussed above. Following excavation and offsite disposal of the soil contamination, risks to ecological receptors at the Site are considered low.

**Geology:** The following Site Geology discussion is from the Cleanup Action Report:

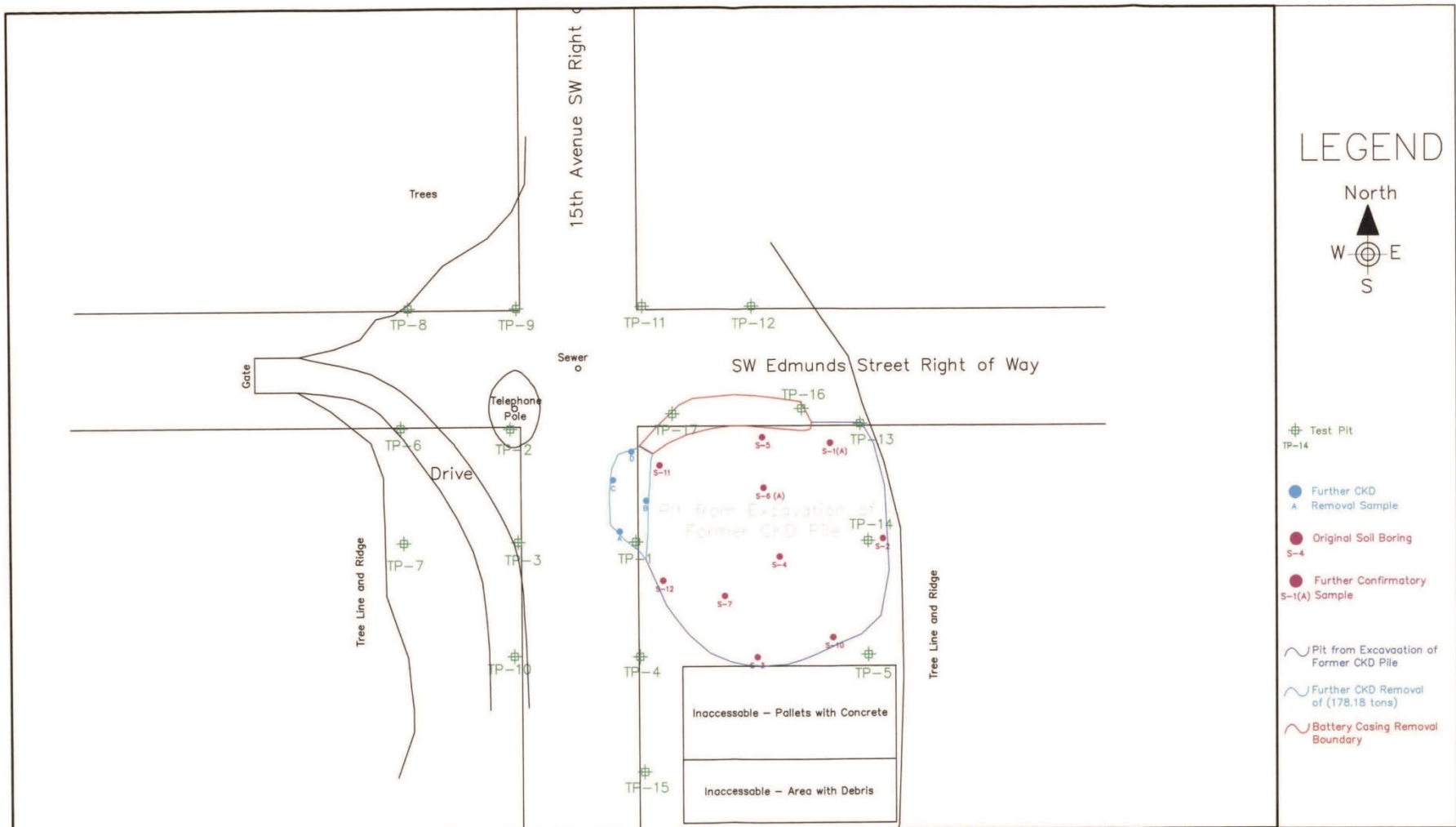
*Based on Troost et al. 2005, the surficial deposits in the immediate vicinity of the Property have been mapped as Pre-Olympia coarse grained deposits and Vashon sub-glacial till. These deposits consist of light to moderately oxidized clean to silty sand to gravel with some silt layers and a mixture of silt, sand, and gravel with intercalated sand lenses.*

*D&M conducted subsurface investigations on and around the Property in 1980 and 1992. Soil borings B-7-80, B-8-80, B-2-92, and B-3-92 were advanced to depths between 33.5 and 43 feet bgs on the western portion of the Property. Fill material consisting of crushed rock or silt and silty sand with gravel was observed in these borings to depths between 2 and 5 feet bgs. The fill material was underlain by clayey silt with trace sand and gravel to the maximum depth of exploration. In borings B-7-80 and B-8-80, the clayey silt was interbedded with silty fine sand at depths between 25 to 33 feet bgs and 5 to 10 feet bgs, respectively (D&M 1980; Geo Group Northwest, Inc. 1993). d.*

**Groundwater:** Groundwater was found to occur at a depth greater than 43 feet below ground surface (ft bgs) in the hilltop area of the soil contamination (surface elevation of about 130 ft amsl). Groundwater was observed at a shallower depth within geotechnical borings drilled at two locations in downslope areas. These included groundwater at a depth of 24 ft bgs at B-7-80 (surface elevation of approximately 117 ft amsl) and at 8 ft bgs at B-8-80 (located near Puget Creek southwest of the Site). Perched groundwater was observed in one Test Pit (TP-8) at a depth of approximately 4 ft bgs; however, no evidence of soil contamination was found at this location.

**Water Supply:** Potable water is provided to the subject property by the City of Seattle. No Group A/B wells or wellhead protection areas are located within the area and the Cleanup Action Report indicated no domestic water supply wells were found in Ecology's database within a half mile of the Site. Risks to water supplies from the contamination historically found at the Site are low.

# Site Diagrams



SESCO Group  
 1426 West 29th Street  
 Indianapolis, IN  
 317-347-9590; fax 317-347-9591

Upper Hudson Street Site  
 4815 SW 15th Avenue  
 Seattle, WA 98106

Site Map

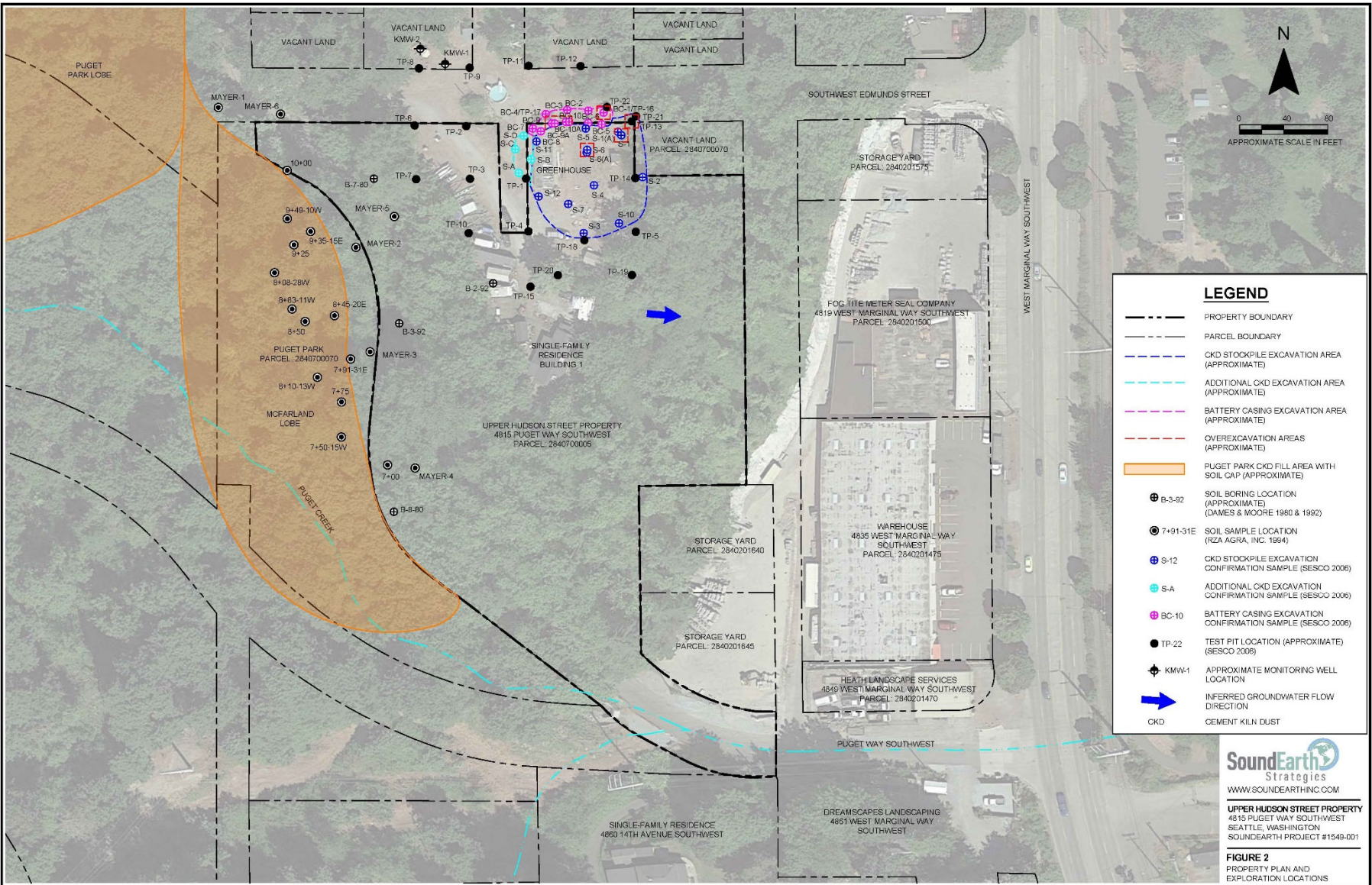
Scale:  
 1" = 40'

Drawn by:  
 KB

Figure:  
 1

10190022

P:\1549 SHARED SPACES FOUNDATION\1549-001 HERON'S NEST PROPERTY\TECHNICAL\CD\2021549-001-2022-PP.DWG



### LEGEND

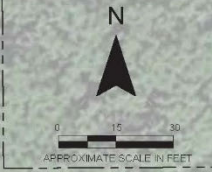
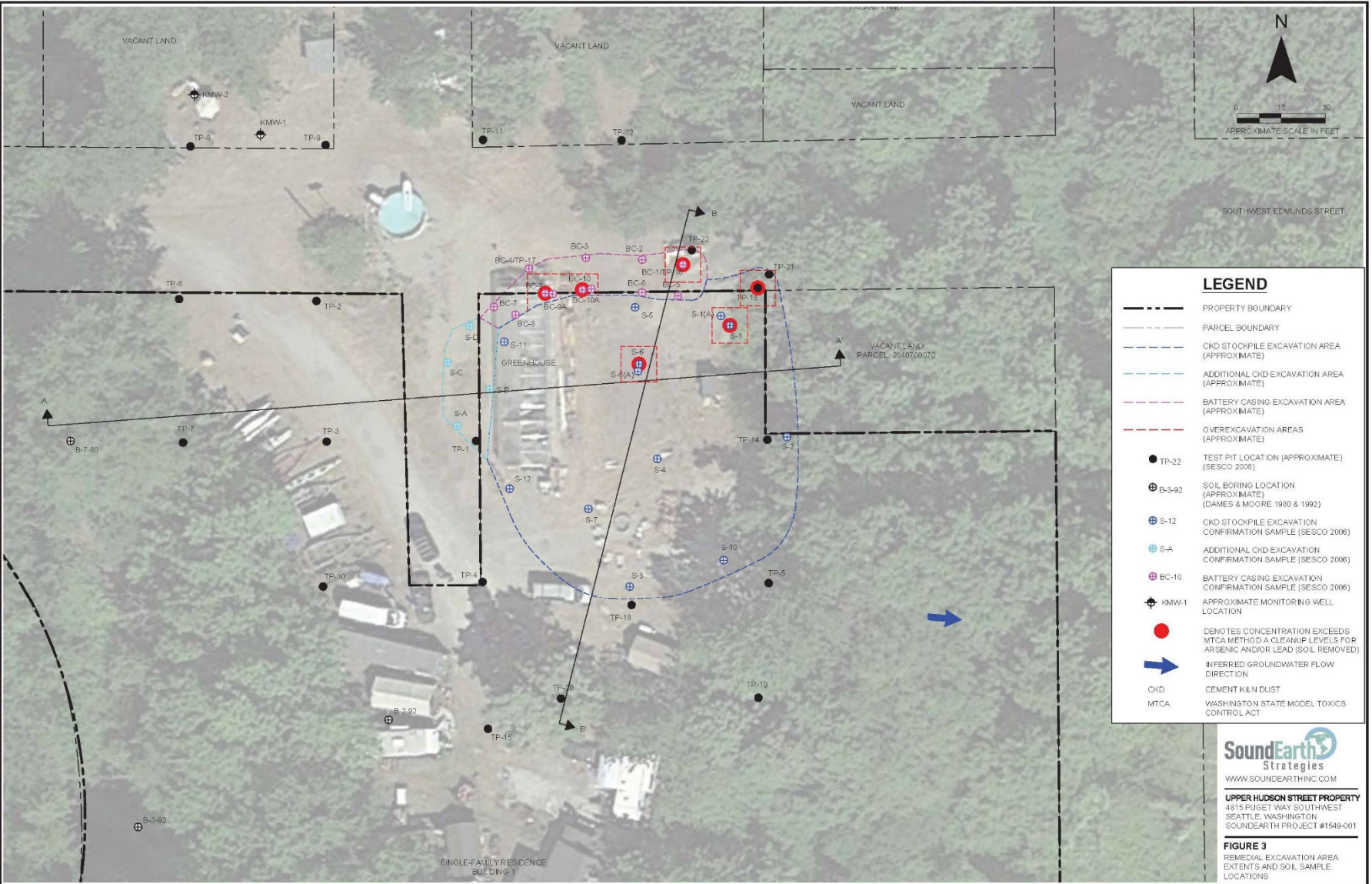
- PROPERTY BOUNDARY
- PARCEL BOUNDARY
- CKD STOCKPILE EXCAVATION AREA (APPROXIMATE)
- ADDITIONAL CKD EXCAVATION AREA (APPROXIMATE)
- BATTERY CASING EXCAVATION AREA (APPROXIMATE)
- OVEREXCAVATION AREAS (APPROXIMATE)
- PUGET PARK CKD FILL AREA WITH SOIL CAP (APPROXIMATE)
- B-3-92 SOIL BORING LOCATION (APPROXIMATE) (DAVES & WOORE 1980 & 1992)
- 7+91-31E SOIL SAMPLE LOCATION (RZA AGRA, INC. 1994)
- S-12 CKD STOCKPILE EXCAVATION CONFIRMATION SAMPLE (SESICO 2006)
- S-A ADDITIONAL CKD EXCAVATION CONFIRMATION SAMPLE (SESICO 2006)
- BC-10 BATTERY CASING EXCAVATION CONFIRMATION SAMPLE (SESICO 2006)
- TP-22 TEST PIT LOCATION (APPROXIMATE) (SESICO 2006)
- KMW-1 APPROXIMATE MONITORING WELL LOCATION
- INFERRED GROUNDWATER FLOW DIRECTION
- CKD CEMENT KILN DUST

**SoundEarth**  
Strategies  
WWW.SOUNDEARTHINC.COM

**UPPER HUDSON STREET PROPERTY**  
4815 PUGET WAY SOUTHWEST  
SEATTLE, WASHINGTON  
SOUNDEARTH PROJECT #1549-001

**FIGURE 2**  
PROPERTY PLAN AND  
EXPLORATION LOCATIONS





SOUTH-WEST EDMUNDS STREET

### LEGEND

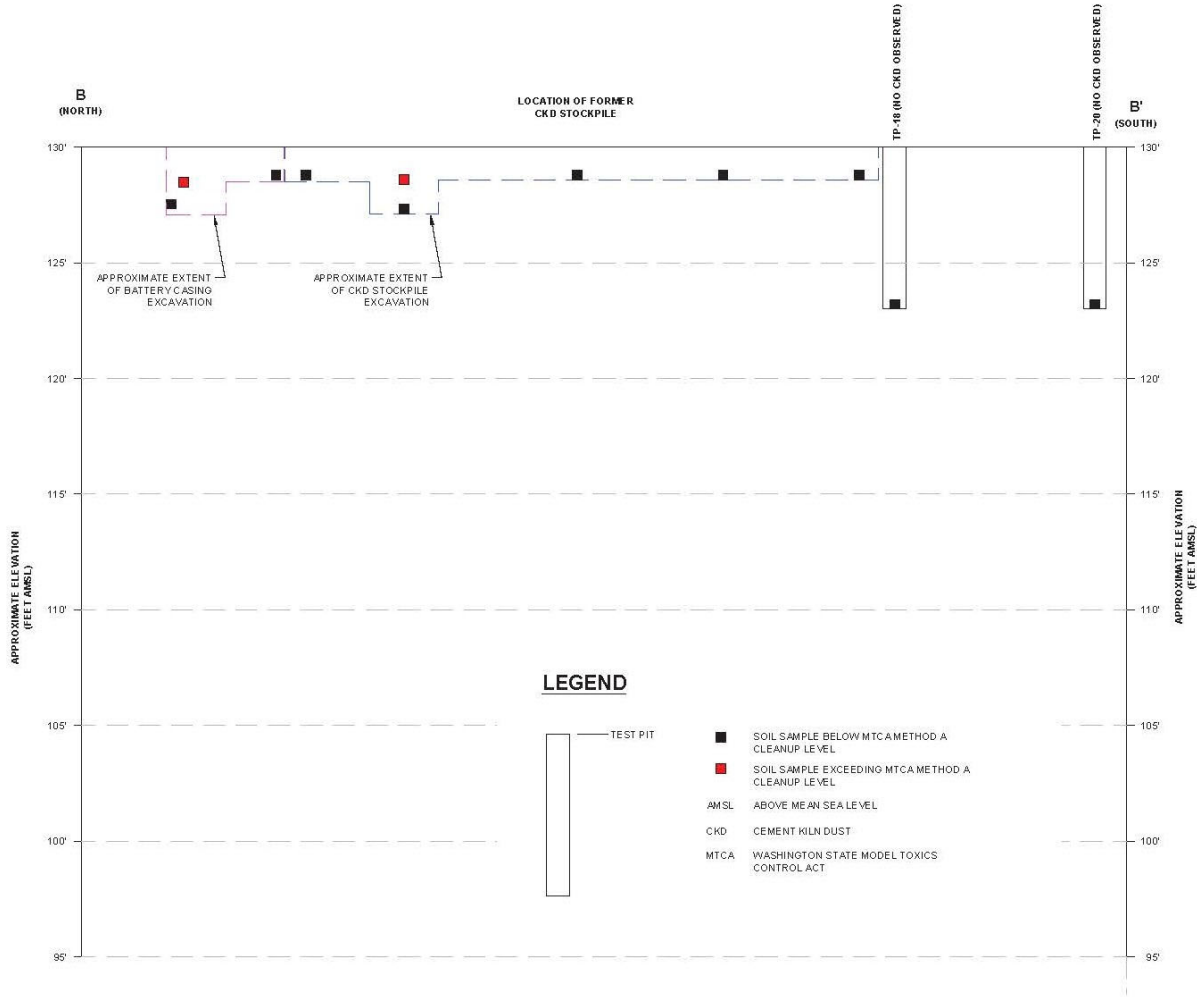
- PROPERTY BOUNDARY
- PARCEL BOUNDARY
- CKD STOCKPILE EXCAVATION AREA (APPROXIMATE)
- ADDITIONAL CKD EXCAVATION AREA (APPROXIMATE)
- BATTERY CASING EXCAVATION AREA (APPROXIMATE)
- OVEREXCAVATION AREAS (APPROXIMATE)
- TP-22 TEST PIT LOCATION (APPROXIMATE) (SESCO 2006)
- B-3-92 SOIL BORING LOCATION (APPROXIMATE) (DAMES & MOORE 1990 & 1992)
- S-12 CKD STOCKPILE EXCAVATION CONFIRMATION SAMPLE (SESCO 2006)
- S-4 ADDITIONAL CKD EXCAVATION CONFIRMATION SAMPLE (SESCO 2006)
- BC-10 BATTERY CASING EXCAVATION CONFIRMATION SAMPLE (SESCO 2006)
- KMW-1 APPROXIMATE MONITORING WELL LOCATION
- DENOTES CONCENTRATION EXCEEDS MTCA METHOD D & CLEANUP LEVELS FOR ARSENIC AND/OR LEAD (SOIL REMOVED)
- INFERRED GROUNDWATER FLOW DIRECTION
- CKD CEMENT KILN DUST
- MTCA WASHINGTON STATE MODEL TOXICS CONTROL ACT



**UPPER HUDSON STREET PROPERTY**  
 4815 PUGET WAY SOUTHWEST  
 SEATTLE, WASHINGTON  
 SOUNDEARTH PROJECT #1549-001

**FIGURE 3**  
 REMEDIAL EXCAVATION AREA  
 EXTENTS AND SOIL SAMPLE  
 LOCATIONS





UPPER HUDSON STREET PROPERTY  
 4815 PUGET WAY SOUTHWEST  
 SEATTLE, WASHINGTON  
 SOUNDEARTH PROJECT #1549-001

**FIGURE 5**  
 CROSS SECTION B-B'



Image Landsat / Copernicus  
Data SIO, NOAA, U.S. Navy, NGA, GEBCO

Google Earth



