



# SUB-SLAB SOIL INVESTIGATION WORK PLAN

Webster Nursery  
9805 Blomberg Street  
Tumwater, Washington

April 4, 2024

Prepared for

Washington State Department of Natural Resources  
PO Box 47030  
Olympia, Washington

**Sub-slab Soil Investigation Work Plan  
Webster Nursery  
9805 Blomberg Street Southwest  
Tumwater, Washington**

This document was prepared by, or under the direct supervision of, the technical professionals noted below.

Document prepared by:  Katie Gauglitz, LG  
Senior Geologist, Author

Document reviewed by:  Piper Roelen, PE  
Principal, Quality Reviewer

Date: April 4, 2024  
Project No.: 0774006.040.048  
File path: Y:\774\006 Webster\R\Work Plans\WP\_Sub-slab Soil\_2023\Landau\_Webster Sub-slab Soil Investigation WP  
4.4.2024  
Project Coordinator: KJG

Sub-slab Soil Investigation Work Plan  
Webster Nursery - Tumwater, Washington

This page intentionally left blank.

## TABLE OF CONTENTS

	Page
1.0 INTRODUCTION .....	1-1
1.1 Site Description .....	1-1
1.2 Site Background.....	1-1
2.0 ADDITIONAL SUBSURFACE INVESTIGATIONS.....	2-1
2.1 Soil Sampling .....	2-1
2.2 Cultural Resources.....	2-1
3.0 FIELD ACTIVITIES .....	3-1
3.1 Pre-Field Activities.....	3-1
3.1.1 Health and Safety Plan.....	3-1
3.1.2 Utility Clearance .....	3-1
3.2 Direct Push Drilling.....	3-1
3.3 Field-Screening.....	3-2
3.4 Soil Sampling .....	3-2
3.5 Equipment Decontamination .....	3-3
3.6 Residual Waste Management .....	3-3
4.0 DATA EVALUATION AND REPORTING .....	4-1
5.0 USE OF THIS WORK PLAN.....	5-1
6.0 REFERENCES.....	6-1

## FIGURES

Figure	Title
1	Vicinity Map
2	Site Plan

## TABLES

Table	Title
1	Historical Analytical Results
2	Analytical Method Details

## APPENDICES

Appendix	Title
A	Inadvertent Discovery Plan
B	Site-Specific Health and Safety Plan

## LIST OF ABBREVIATIONS AND ACRONYMS

2,4-D.....	2,4-dichlorophenoxyacetic acid
µg/kg.....	micrograms per kilogram
bgs.....	below ground surface
COC.....	chain-of-custody
CAP.....	Cleanup Action Plan
CMP.....	Compliance Monitoring Plan
DI.....	deionized
DNR.....	Washington State Department of Natural Resources
Ecology.....	Washington State Department of Ecology
EPA.....	US Environmental Protection Agency
ft.....	foot/feet
HASP.....	Health and Safety Plan
HE.....	heptachlor epoxide
IDP.....	inadvertent discovery plan
IDW.....	investigation-derived waste
kg.....	kilogram
Landau.....	Landau Associates, Inc.
MTCA.....	Model Toxics Control Act
RCRA.....	Resource Conservation and Recovery Act
Site.....	DNR Webster Nursery
UST.....	underground storage tank

## 1.0 INTRODUCTION

This work plan was prepared on behalf of the Washington State Department of Natural Resources (DNR) by Landau Associates, Inc. (Landau) and presents a work plan for conducting a sub-slab soil investigation at the DNR Webster Nursery site, a former pesticide-storage warehouse in Tumwater, Washington (Site; Figure 1). The Site is associated with past releases of organochlorine pesticides to soil and groundwater. Constituents of potential concern include the organochlorine pesticides heptachlor and heptachlor epoxide (HE; a breakdown product of heptachlor), and the chlorinated herbicide 2,4-dichlorophenoxyacetic acid (2,4-D).

To date, remedial activities at the Site have primarily focused on the area located to the south of the warehouse building. Remedial action excavation and disposal of HE-contaminated soil was completed in August 2018. A summary of the remedial action was provided in a Cleanup Action Completion Report (Landau 2020). The Washington State Department of Ecology (Ecology)-approved Compliance Monitoring Plan (CMP) was finalized on April 14, 2023 (Landau 2023a) and groundwater confirmation monitoring and cleanup is complete (Landau 2023b).

### 1.1 Site Description

Webster Nursery is an operating forest nursery located at 9805 Blomberg Street Southwest, in Thurston County, Washington, approximately 0.5 miles west of Interstate 5 (Figure 1). The Site consists of an area of soil and groundwater at the nursery that was formerly affected by a historical release of organochlorine pesticides from an underground storage tank (UST) located south of the former pesticide storage warehouse. The Site is accessible from Blomberg Street Southwest. The extent of the Site is shown on Figure 2.

### 1.2 Site Background

A concrete UST was installed south of the former pesticide storage warehouse in 1978. The UST was historically used to contain wash-water and spills from pesticide mixing operations at the nursery. The original concrete UST was replaced with a metal UST in 1982. During removal of the metal UST in July 1996, pesticide contamination (primarily heptachlor) was confirmed in soil and groundwater, and a remedial excavation was completed in 1996. According to the 2001 Cleanup Action Plan (CAP), approximately 70 cubic yards of soil contaminated with heptachlor, HE, chlordanes, and chlorinated herbicides were removed for disposal (Ecology 2001). The excavation depth was approximately 7 feet (ft) below ground surface (bgs). The results of confirmation soil samples collected after termination of excavation activities indicated soil contamination was left in place.

An assessment of a subfloor drain associated with the pesticide storage operations was conducted in 1998 (Tetra Tech 1999). The purpose of the investigation was to determine whether the floor drains or associated piping resulted in releases beneath the building. The approximate location of the former drains and piping are shown in Figure 2. Soil samples were collected from 10 locations beneath the building slab, at locations directly adjacent to the floor drains and at additional locations along the

pipng alignment, at depths between 1 and 3.75 ft. Groundwater at the Site ranges seasonally from approximately 2.5 to 12.5 bgs.

Soil samples were analyzed for organochlorine pesticides and chlorinated herbicides. Sample depths, analytical methods, and 1998 and current cleanup levels are presented in Table 1. Results indicate that organochlorine pesticides, including heptachlor and HE, were not detected above the laboratory reporting limit of 1.00 micrograms per kilogram ( $\mu\text{g}/\text{kg}$ ) in any samples.<sup>1</sup> This reporting limit represents up to twice the current Model Toxics Control Act (MTCA) Method B soil cleanup levels for protection of groundwater saturated zone (0.95  $\mu\text{g}/\text{kg}$  for heptachlor and 0.5  $\mu\text{g}/\text{kg}$  for HE) and is over one order of magnitude less than the current vadose zone cleanup levels (19  $\mu\text{g}/\text{kg}$  for heptachlor and 9.9  $\mu\text{g}/\text{kg}$  for HE). Groundwater data collected at proximate well SW-9R following remedial excavation activities completed in 2018 identified no detections of heptachlor or HE in groundwater. This data empirically demonstrates that groundwater is not impacted by heptachlor or HE in saturated soils in the southern end of the warehouse.

Chlorinated herbicides 2,4-D and dicamba were each detected in one of the two sample intervals at SS-01 at concentrations above the laboratory reporting limit during the 1998 assessment. As shown in Table 1, the detected concentrations were well below the 1998 cleanup levels. The detected dicamba concentration was also well below the current vadose and saturated soil cleanup levels protective of groundwater and, therefore, dicamba is not considered a contaminant of concern. The detected 2,4-D concentration was well below the current vadose soil cleanup level protective of groundwater and only marginally above the saturated soil cleanup level. The depth of both samples collected at SS-01 were in vadose zone soils located above the seasonally high groundwater table at the Site. However, Ecology believes these two chlorinated herbicide detections could indicate a release in the area surrounding SS-01. Therefore, DNR proposes to complete sub-slab soil sampling in the vicinity of SS-01 to verify whether heptachlor, HE and 2,4-D are present above levels protective of groundwater. These proposed investigation activities are described in Sections 2 and 3.

---

<sup>1</sup> Note that the reporting limit for other pesticides (i.e., Aldrin, alpha- and beta-BHC, and dieldrin) was above the current saturated soil cleanup level; however, none of these constituents have been detected in soil at the Site and are not considered contaminants of concern.

## 2.0 ADDITIONAL SUBSURFACE INVESTIGATIONS

The following sections describe additional investigation activities to be performed at the Site.

### 2.1 Soil Sampling

Additional sub-slab soil sampling will be completed beneath the southern-most portion of the warehouse building, at the location where historical chlorinated herbicide concentrations indicate a release may have occurred. Investigations will generally involve advancing soil borings along the former drain pipe alignment and proximate to the historical sampling locations SS-01 and SS-02, and south of SS-01 (but directly north of the 2018 remedial excavation area), to determine whether heptachlor or HE were released beneath the slab either via the drain, pipes, or at the USTs. Soil sampling will be completed to evaluate the lateral and vertical extents of the impacts to the vadose zone, as described in the following sections.

A maximum of nine soil samples will be collected from three locations, as described above. Three soil samples will be obtained from each boring from intervals around 2 ft bgs, 4 ft bgs, and above the seasonal water table; samples will be collected using direct-push drilling technology. The depth of soil samples collected may be adjusted in the field based on the observed groundwater elevation at the time of drilling. The depth to water at monitoring well SW-9R will be measured to determine the water table elevation during soil sampling.

Soil samples will be analyzed by an accredited laboratory for heptachlor and HE by US Environmental Protection Agency (EPA) Method 8081B and for 2,4-D by EPA Method 8151A. Samples collected from the boring closest to SS-01 will be analyzed immediately; soil samples collected from the other three locations will be placed on hold with the laboratory. If samples collected from the location at SS-01 exceed applicable cleanup levels, then additional locations/intervals will be analyzed to determine the extent of contamination beneath the warehouse building.

### 2.2 Cultural Resources

A cultural resources review and Tribal consultation will be completed prior to any ground disturbing activities in accordance with Governor's Executive Order 21-02. DNR has prepared an inadvertent discovery plan (IDP) in the event that archeological resources are identified during subsurface investigation activities. If archeological resources are discovered, DNR will be immediately notified, work will be stopped, and the Site will be secured in accordance with the IDP. The IDP, including contact information, is provided in Appendix A.



## **3.0 FIELD ACTIVITIES**

This section describes the field activities related to the soil investigation, including direct-push drilling, soil sampling methods, groundwater sampling methods, equipment decontamination, and residual waste management. Field activities will be conducted in accordance with the Site-specific Health and Safety Plan (HASP; Appendix B).

### **3.1 Pre-Field Activities**

The following subsections outline tasks that must be completed prior to the start of invasive field tasks (i.e., drilling and sampling).

#### **3.1.1 Health and Safety Plan**

A Site-specific HASP for implementation of field activities described in this work plan is provided in Appendix B. Landau employees will follow the procedures described in this HASP. Landau's subcontractors will prepare their own health and safety plan or choose to adopt the HASP prepared by Landau.

#### **3.1.2 Utility Clearance**

Prior to initiation of drilling or any other invasive subsurface activity, the locations of each proposed boring will be checked in the field to locate aboveground utilities or physical limitations that would prevent drilling at the proposed location. Landau will coordinate with DNR personnel to check the proposed boring locations for potential obstructions and ensure that the work area can be cleared and secured during the field investigation and follow-on activities. Landau will rely on DNR to supply available facility drawings of non-conductible utilities.

A public utility locate service will be contacted to locate public underground utilities, and a private utility locate service will be contracted to locate underground utilities near the proposed borings. If non-conductible utilities are identified on facility drawings in the vicinity of the subsurface investigation work, a ground penetrating radar study will be used to locate the non-conductible pipes prior to drilling. Borings will be relocated, as needed, to avoid underground or overhead utilities and meet the objectives of the investigation.

### **3.2 Direct Push Drilling**

Soil analytical samples will be collected using a direct-push drill rig operated by a Washington State-licensed driller. The direct-push soil sampling method consists of driving a core barrel with a removable rigid polyethylene liner into the subsurface using an automated hammer to collect a continuous soil core. The plastic liner measures 2.25 inches in diameter and roughly 5 ft in length. After the plastic liner has been driven to its desired depth, the core barrel will be removed from the ground and the liner and soil core placed on a table and opened lengthwise using a blade. If deeper sampling is required, a new plastic liner will be driven using the same process, continuing from the previously sampled depth. The

process will be repeated until the total depth of the boring has been achieved. Between samples, the core sampler, including sampling points and rods, will be decontaminated as described in Section 3.5.

All drilling and soil sampling activities will be conducted under the supervision of a Licensed Geologist or an appropriately trained environmental professional. A descriptive log of each soil boring will be prepared, and samples will be screened for indications of potential contamination as described in Section 4.5. Soil conditions will be logged in the field in general accordance with the Unified Soils Classification System.

### 3.3 Field-Screening

Soil will be field screened for evidence of chemical impact to environmental media. Field-screening techniques may include visually inspecting the soil for staining, discoloration, odor, and other evidence of chemical impact.<sup>2</sup>

### 3.4 Soil Sampling

Soil samples for non-volatile constituents, such as HE, are collected in laboratory-provided jars of an appropriate size for the number of analyses being conducted. Care will be taken to collect an appropriately representative sample. Samples will be mixed in stainless steel bowls to homogenize the soil before collecting into sample jars. Between samples, the bowls and spoons will be decontaminated as described in Section 3.5. All samples will be stored in coolers with ice and transported using proper chain-of-custody (COC) procedures to an appropriately accredited analytical laboratory. Soil analytical methods, laboratory reporting and control limits, sample containers, and holding times for EPA Methods 8081B and 8151A are presented in Table 2.

Blind field duplicates will be collected (a minimum of one per 20 samples collected over the duration of the sampling event). The sample will be collected by splitting one sample in the field into two samples using the following procedure: 1) alternate the filling of the primary and duplicate sample containers; 2) fill out a separate sample collection form for the duplicate sample; and 3) label the duplicate sample using a unique name not related to the primary sample. The blind field duplicate samples will be listed on the COC and analyzed for the same constituents as the primary sample by the laboratory.

Soil cuttings will be contained in a 55-gallon stainless steel drum. One composite soil sample from the drum will be collected and submitted to the laboratory for analyses for heptachlor and HE by EPA Method 8081B, for 2,4-D by EPA Method 8151A, and for Resource Conservation and Recovery Act (RCRA) 8 metals<sup>3</sup> by Methods 6020B and 7471B. The composite sample results will be used for a waste disposal profile.

---

<sup>2</sup> Field screening techniques including sheen testing and volatile organic carbon monitoring using photoionization detection are not applicable to pesticides.

<sup>3</sup> RCRA 8 metals consist of arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver.

### 3.5 Equipment Decontamination

Non-dedicated sampling equipment will be decontaminated between sample locations. Sampling equipment is defined as all devices used to collect or contain a sample prior to placement into a laboratory-provided sample container or used downhole in a well or boring (e.g., water level indicator, depth sounding tape, drill rods, spoons, bowls, etc.). Before initial use, sampling equipment that may contribute to the cross-contamination of a sample must be thoroughly decontaminated, unless specific documentation exists to show that the sampling equipment has already been decontaminated. Pre-cleaned equipment and sample jars in factory-sealed containers do not require decontamination.

Decontamination will be performed according to the following procedure:

- Scrub equipment thoroughly with biodegradable detergent (Alconox) and potable water using a brush to remove any particulate matter or surface film
- Rinse with potable water
- Final rinse with deionized (DI) water
- Keep decontaminated equipment in a clean location to prevent recontamination.

### 3.6 Residual Waste Management

Investigation-derived waste (IDW) will consist of soil cuttings from each of the soil borings and water used for equipment decontamination. Soil and water IDW will be segregated and stored in 55-gallon drums at the subject property until it can be removed and disposed of by a specialized environmental waste-handling company. All IDW drums will be properly labeled with the drum's contents, subject property address, and general project information. A log of the waste generated will be maintained.

## 4.0 DATA EVALUATION AND REPORTING

DNR will submit a draft Sub-Slab Soil Investigation Report to Ecology for review within 60 days of receipt of validated soil sample results. The sampling data will also be uploaded to Ecology's Environmental Information Management database by DNR (or a contractor to DNR).

DNR will evaluate the data from the investigation and will prepare a comprehensive description of the investigation activities, tabulated field and laboratory data, and a comparison of analytical data to the relevant regulatory levels (i.e., cleanup levels listed in the 2016 CAP for protection of groundwater in the vadose zone, or Ecology's MTCA Method B cleanup level for protection of groundwater in the vadose zone). Soil cleanup levels are as follows:

Constituent	Soil Protection of Groundwater Vadose Zone (Ecology 2016 [CAP])	Soil Protection of Groundwater Vadose Zone (Ecology 2024)
Heptachlor	37.8 µg/kg	--
Heptachlor epoxide	80.2 µg/kg	--
2,4-dichlorophenoxyacetic acid	Not Listed	320 µg/kg

**Notes:**

-- = not applicable

µg/kg = micrograms per kilogram

Recommendations for additional work will be included, if warranted, based on the findings of the investigation (e.g., if soil sample analysis results from the investigation are above the applicable cleanup levels). If the investigation does not find evidence of contamination above the applicable cleanup level, DNR will request that Ecology 1) evaluate the overall success of the soil cleanup, 2) issue a letter indicating the monitoring requirements are satisfied, and 3) provide concurrence that cleanup of the Site is complete, and no environmental covenant is warranted for the area of the warehouse.

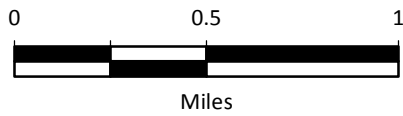
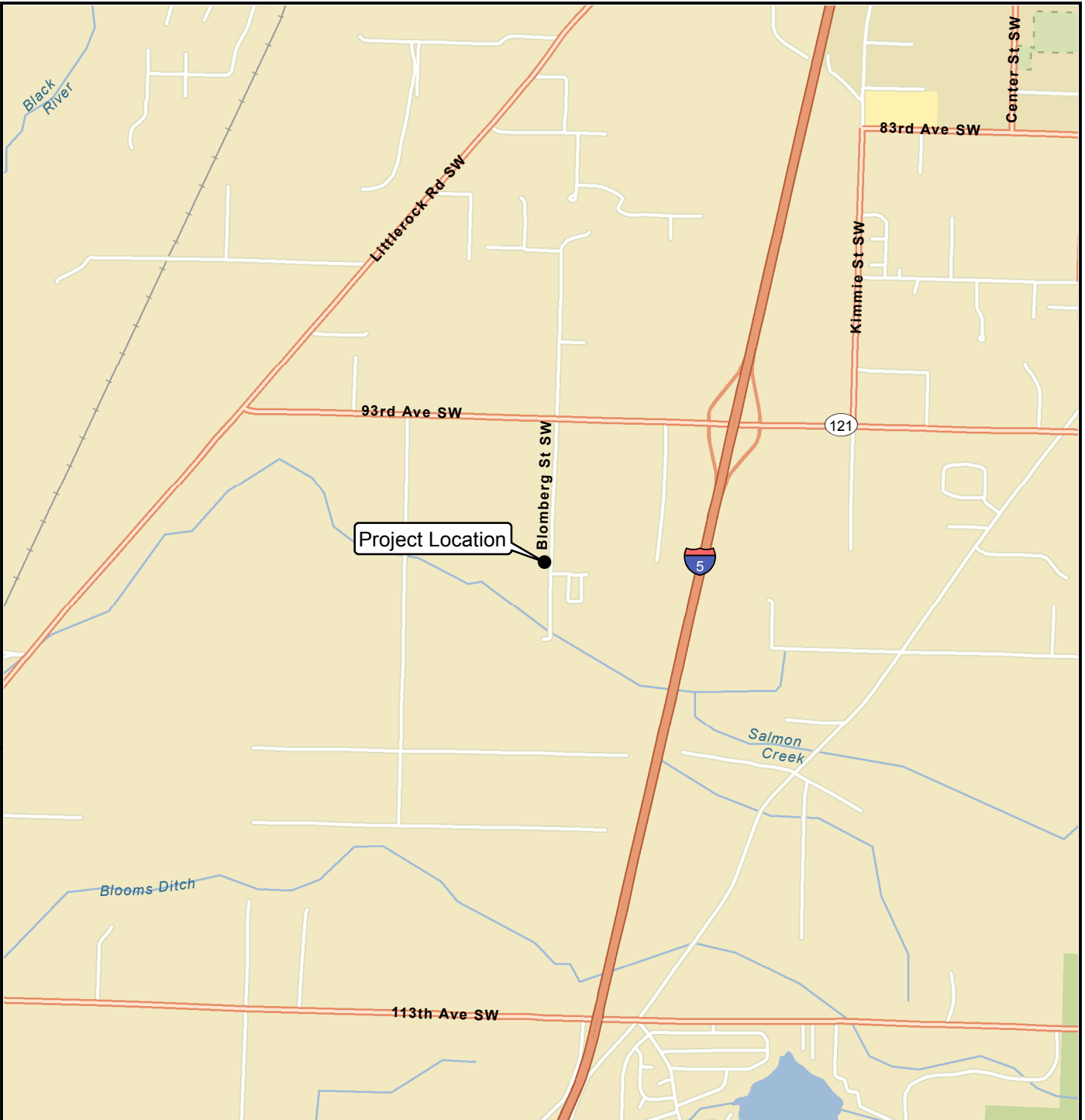
## 5.0 USE OF THIS WORK PLAN

This work plan has been prepared for the exclusive use of Washington State Department of Natural Resources and Washington State Department of Ecology for specific application to the Webster Nursery Site. No other party is entitled to rely on the information, conclusions, and recommendations included in this document without the express written consent of Landau. Further, the reuse of information, conclusions, and recommendations provided herein for extensions of the project or for any other project, without review and authorization by Landau, shall be at the user's sole risk. Landau warrants that within the limitations of scope, schedule, and budget, our services have been provided in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions as this project. Landau makes no other warranty, either express or implied.

## 6.0 REFERENCES

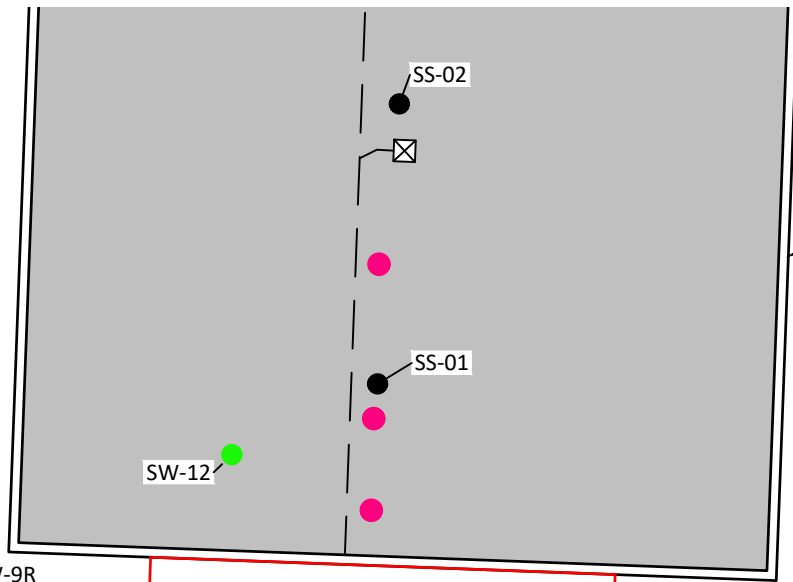
- Ecology. 2001. Agreed Order No. DE 00 TCPSR-295. Washington State Department of Ecology. January 8.
- Ecology. 2016. Agreed Order No. DE 13181 In the Matter of Remedial Action by Washington State Department of Natural Resources. Washington State Department of Ecology.
- Ecology. 2024. Cleanup Levels and Risk Calculations (CLARC). Washington State Department of Ecology. February.
- Landau. 2020. Final: Cleanup Action Completion Report, Washington State Department of Natural Resources Webster Nursery, Tumwater, Washington. Landau Associates, Inc. May 29.
- Landau. 2023a. Draft Technical Memorandum: Compliance Monitoring Plan, Webster Nursery Site, Site Identification 3380, Tumwater, Washington. Landau Associates, Inc. April 14.
- Landau. 2023b. Technical Memorandum: Third Quarter 2023 Groundwater Monitoring Results, Webster Nursery Site, Site Identification 3380, Tumwater, Washington. Landau Associates, Inc. November 2.
- Tetra Tech. 1999. Work Plan: Pesticide Storage Warehouse Remedial Investigation/Feasibility Study, Webster Nursery, Olympia, Washington. Tetra Tech, Inc. January.

G:\Projects\774\006\020\026\FIS\F01\_VicinityMap.mxd 5/16/2016 NAD 1983 StatePlane Washington North FIPS 4601 Feet



Data Source: Esri 2012

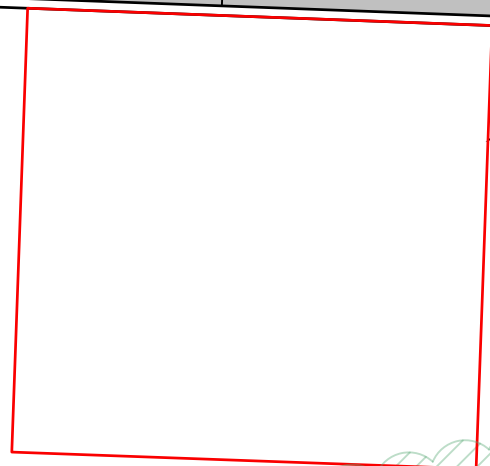
Landau Associates | G:\Projects\774\006\048\SitePlan.dwg | 3/11/2024 10:29 AM | bpadgett



SW-9R



2018 Remedial Excavation Extent









SW-11R



SW-10R



**Legend**

-  Proposed Sub-Slab Soil Sample Location
-  Monitoring Well Location
-  1998 Sub-slab Soil Sample
-  Former Drain
-  Former Piping
-  Tree Canopy Area

**Note**

1. Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.



Source: Tetra Tech, 1999



Webster Nursery Site  
Tumwater, Washington

Site Plan

Figure  
**2**



**Table 1**  
**Subfloor Drainage Soil Sample Results - April 1998**  
**Webster Nursery**  
**Tumwater, Washington**

	Sample Identification and Depth:			PSW-SS-01-2.0 2 ft	PSW-SS-01-3.75 3.75 ft	PSW-SS-02-2.0 2 ft	PSW-SS-03-2.0 2 ft	PSW-SS-04-2.0 2 ft	PSW-SS-05-2.5 2.5 ft	PSW-SS-06-2.5 2.5 ft	PSW-SS-07-2.0 2 ft	PSW-SS-08-1.5 1.5 ft	PSW-09-1.5 1.5 ft	PSW-SS-10-1.0 1 ft	PSW-SS-11-1.5 1.5 ft
	1998 CUL	2023 Soil Protective of Groundwater													
		Vadose (a)	Saturated												
<b>Organochlorine Pesticides (µg/kg)</b>															
Aldrin	0.515	2.5	0.13	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
alpha-BHC	N/A	0.55	0.028	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U
beta-BHC	N/A	2.3	0.12	0.900 U	0.900 U	0.900 U	0.900 U	0.900 U	0.900 U	0.900 U	0.900 U	0.900 U	0.900 U	0.900 U	0.900 U
delta-BHC	N/A			0.600 U	0.600 U	0.600 U	0.600 U	0.600 U	0.600 U	0.600 U	0.600 U	0.600 U	0.600 U	0.600 U	0.600 U
gamma-BHC	6.73			1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
Technical chlordane	6.73	1,300	64	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
alpha-chlordane	6.73	5,400	270	0.800 U	0.800 U	0.800 U	0.800 U	0.800 U	0.800 U	0.800 U	0.800 U	0.800 U	0.800 U	0.800 U	0.800 U
gamma-chlordane	6.73	5,400	270	0.700 U	0.700 U	0.700 U	0.700 U	0.700 U	0.700 U	0.700 U	0.700 U	0.700 U	0.700 U	0.700 U	0.700 U
4,4-DDD	36.5	340	17	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
4,4-DDE	25.7	220	11	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
4,4-DDT	25.7	3,500	170	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
Dieldrin	0.547	2.8	0.14	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Endosulfan I	9,600			1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
Endosulfan II	9,600			2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Endosulfan sulfate	N/A			1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
Endrin	480	440	22	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Endrin aldehyde	N/A	N/A	N/A	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Heptachlor	1.94	19	0.95	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
Heptachlor epoxide	0.962	9.9	0.5	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
Methoxychlor	8,000	64,000	3,200	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U
Toxaphene	7.95	1,500	76	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U
<b>Chlorinated Herbicides (µg/kg)</b>															
2,4-D	800,000	320	22	5.0 U	<b>22.8 J</b>	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dicamba	2,400,000	2,200	150	<b>5.86</b>	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

**Notes:**  
**Bold** text indicates detected analyte.  
(a) All soil samples were collected from the vadose zone, and are therefore compared to the soil protective of groundwater vadose zone cleanup level.  
U = The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.  
J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

**Abbreviations and Acronyms:**  
µg/kg = microgram per kilogram  
CUL = cleanup level  
ft = feet  
MTCA = Model Toxics Control Act  
N/A = not available

**Table 2  
Analytical Method Details  
Webster Nursery  
Tumwater, Washington**

Soil Analytical Parameters	EPA Analytical Method	Laboratory Reporting Limit	Sample Container	Preservation	Maximum Holding Time (Days) (a)	Laboratory Performing Analyses
<b>Pesticides</b>						
Heptachlor and HE	8081B	0.500 µg/kg	One 8-ounce glass soil jar	Store cool at 6°C	14	AR
<b>Chlorinated Herbicides</b>						
2,4-D	8151A	12 µg/kg (b)	One 4-ounce glass soil jar	Store cool at 6°C	14	ELLE

**Notes:**

- (a) Samples analyzed after more than twice the maximum holding time will be rejected during the data validation process.
- (b) Laboratory reporting limit as presented represents the method detection limit (MDL)

**Abbreviations and Acronyms:**

- °C = degrees Celsius
- µg/kg = micrograms per kilogram
- 2,4-D = 2,4-dichlorophenoxyacetic acid
- AR = Analytical Resources, located in Tukwila, Washington
- ELLE = Eurofins Lancaster Laboratories Environmental Testing, LLC, located in Lancaster, Pennsylvania
- EPA = US Environmental Protection Agency
- HE = heptachlor epoxide

# Inadvertent Discovery Plan



# Inadvertent Discovery Plan

The Inadvertent Discovery Plan relates to the unexpected unearthing of skeletal material of human or unknown origin, or unearthing cultural artifacts, features or evidence of cultural materials on DNR managed lands. This guidance contains direction that is to be implemented when an inadvertent discovery of a cultural resource occurs.

Cultural resources that may be inadvertently discovered include archaeological resources and historic-period sites.

Archaeological objects vary and can include evidence or remnants of historic-era and precontact activities by humans. Archaeological objects can include but are not limited to:

- Stone flakes, arrowheads, stone tools, bone or wooden tools, baskets, beads.
- Historic-period building materials such as nails, glass, metal such as cans, barrel rings, farm implements, ceramics, bottles, marbles, and beads.
- Layers of discolored earth resulting from hearth fire
- Structural remains such as foundations
- Shell Middens
- Human skeletal remains and/or bone fragments that may be whole or fragmented.

If in doubt, call it in.

## **ACTION**

**Pre-field Actions:** Prior to ground disturbance, the DNR contract administrator (CA) or project manager will notify contractors, work crews, and machine operators that they are obligated to cease work in the immediate area upon discovery of any bones or objects of human manufacture, particularly suspected Native American artifacts. This notification will occur during the pre-work conference and during field compliance reviews.

**Field Actions:** In the event that project personnel encounter any definite or possible artifacts, archaeological deposits, or human remains during ground disturbance, work will immediately stop and the DNR CA or project manager will be notified. The project personnel or responsible DNR staff will make a reasonable effort to protect and secure the discovery, including providing an appropriate buffer and restricting access to the area of the find. The responsible DNR staff will immediately contact a DNR archaeologist.

Do not distribute photographs of the find except to responding agency staff, including on social media. Do not communicate with the media.



When finds may be of tribal origin, the affected tribes will be notified as soon as possible. Work may be redirected into areas which will not impact the find. Do not resume any work in the protected area until specifically instructed to do so, in writing, by a DNR archaeologist.

Evaluation and final protection measures will vary according to the nature of the discovery. See specific procedures in order of priority below.

#### Specific Procedures for Discovery of Human Remains

Procedures for treatment of human remains are provided in RCWs 68.50.645, 27.44.055, and 68.60.055.

If ground disturbing activities encounter human skeletal remains during the course of construction, then all activity will cease that may cause further disturbance to those remains. The area of the find will be secured and protected from further disturbance until the State provides notice to proceed. The finding of human skeletal remains will be reported to DNR law enforcement and the county medical examiner/coroner in the most expeditious manner possible. The remains will not be touched, moved, or further disturbed. The county medical examiner/coroner will assume jurisdiction over the human skeletal remains and make a determination of whether those remains are forensic or non-forensic. If the county medical examiner/coroner determines the remains are non-forensic, then they will report that finding to DNR and the Department of Archaeology and Historic Preservation (DAHP), which will then take jurisdiction over the remains. DAHP will notify any appropriate cemeteries and all affected tribes of the find. The State Physical Anthropologist will make a determination of whether the remains are Indian or Non-Indian and report that finding to any appropriate cemeteries and the affected tribes. DAHP and the DNR tribal liaison's office will then handle consultation with the affected parties as to the future preservation, excavation, and disposition of the remains.

#### Specific Procedures for Precontact Cultural Materials (archaeological resources)

If project personnel discover suspected or likely precontact cultural materials (not including human remains), all work will cease within the discovery area and an appropriate buffer will protect and restrict access to the discovery until an evaluation is conducted. DNR's archaeologists and Tribal Liaison will serve as DNR's lead for DAHP and tribal consultation processes, respectively.

If the DNR archaeologist determines that intact precontact deposits remain, they will instruct the project supervisor regarding interim protective measures and will supervise the implementation of a treatment plan acceptable to consulting parties including DAHP and the affected tribe(s).

#### Specific Procedures for Isolates or Historic-period Cultural Materials (historic sites)

If project personnel discover an area consisting of an isolated artifact, or consists entirely of historic artifacts (no human remains or prehistoric cultural materials), all work within the discovery area will cease until an evaluation is conducted. The DNR archaeologist may go directly to documenting the find as a form of mitigation depending on site composition.

## **Contact Information**

DNR Contract Administrator/ Project Manager

<b>Name:</b>	Amy Sikora
<b>Organization:</b>	WA DNR
<b>Phone:</b>	360-640-0660
<b>Email:</b>	<a href="mailto:Amy.sikora@dnr.wa.gov">Amy.sikora@dnr.wa.gov</a>

DNR Archeologist:

<b>Name:</b>	Louis Fortin
<b>Organization:</b>	WA DNR
<b>Phone:</b>	360-529-7222
<b>Email:</b>	<a href="mailto:Louis.Fortin@dnr.wa.gov">Louis.Fortin@dnr.wa.gov</a>

Alternate Archeologist:

<b>Name:</b>	Hannah Russell
<b>Organization:</b>	WA DNR
<b>Phone:</b>	360-790-9593
<b>Email:</b>	<a href="mailto:hannah.russell@dnr.wa.gov">hannah.russell@dnr.wa.gov</a>

DAHP Contacts:

<b>Name:</b>	Rob Whitlam, PhD
<b>Organization:</b>	State Archaeologist
<b>Phone:</b>	Cell: 360-890-2615
<b>Email:</b>	<a href="mailto:Rob.Whitlam@dahp.wa.gov">Rob.Whitlam@dahp.wa.gov</a>

Human Remains/Bones:

<b>Name:</b>	Guy Tasa
<b>Organization:</b>	State Anthropologist
<b>Phone:</b>	Cell: 360-790-1633 (24/7)
<b>Email:</b>	<a href="mailto:Guy.Tasa@dahp.wa.gov">Guy.Tasa@dahp.wa.gov</a>

## **Tribal Contacts**

### **Squaxin Island Tribe**

Shaun Dinubilo

**Phone:** 360-432-3998

**Email:** [sdinubilo@squaxin.us](mailto:sdinubilo@squaxin.us)

### **Confederated Tribes of the Chehalis**

William Thoms

**Email:** [wthoms@chehalis-tribe.org](mailto:wthoms@chehalis-tribe.org)

**Phone:** 360-709-1768

Dan Penn

**Email:** [dpenn@chehalis-tribe.org](mailto:dpenn@chehalis-tribe.org)

**Phone:** 360-709-1747

### **Cowlitz Indian Tribe**

James Gordon

**Email:** [jgordon@cowlitz.org](mailto:jgordon@cowlitz.org)

**Phone:** 360-577-5680

### **Nisqually Indian Tribe**

Brad Breach

**Email:** [beach.brad@nisqually-nsn.gov](mailto:beach.brad@nisqually-nsn.gov)

**Phone:** 360-456-5221 x1277

### **Quinault Nation**

Justine James

**Email:** [jjames@quinault.org](mailto:jjames@quinault.org) or [justinej1956@gmail.com](mailto:justinej1956@gmail.com)

**Phone:** 360-276-8215 ext. 520

Lia Frenchman

**Email:** [LFrenchman@quinault.org](mailto:LFrenchman@quinault.org)

# Site-Specific Health and Safety Plan





## Work Location Personnel Protection and Safety Evaluation Form

Project Number: 0774006.020.024  
 Prepared by: Sierra Mott  
 Date: July 21, 2016

Reviewed by: Ken Reid  
 Date: August 4, 2016

### A. Work Location Description

1. **Project Name:** Washington State Department of Natural Resources (DNR) Webster Nursery Cleanup Action
2. **Location:** Tumwater, Washington
3. **Anticipated Activities** Excavation and disposal of approximately 145 cubic yards of soil contaminated with heptachlor epoxide (HE); confirmation soil sampling; decommissioning two groundwater monitoring wells; installation of two replacement monitoring wells using direct-push drilling method; collection of groundwater samples.
4. **Size:** Property is 4 acres; project area is less than 1 acre
5. **Surrounding Population:** Residential/Agricultural
6. **Buildings/Homes/Industry:** Current DNR tree seedling nursery; equipment storage, warehouse
7. **Topography:** Flat
8. **Anticipated Weather:** Sun or rain; 30 to 80 degrees Fahrenheit
9. **Unusual Features:** None.
10. **Site History:** From 1978 until the mid-1990s, organochlorine pesticides were stored in an underground storage tank (UST) located south of the nursery's pesticide storage warehouse. Pesticide containers were rinsed in this building and diluted pesticide wash water leaked over time from the UST. Upon final removal of the UST in 1996, pesticide residues were found in surrounding subsurface soil adjacent to the UST. Contaminated soil was removed and disposed of, but field screening indicated that soil contamination was left in place. Monitoring wells were installed immediately surrounding the former UST location. Subsequently, Ecology issued an Agreed Order to DNR. Additional wells were installed for long-term groundwater monitoring. Recent groundwater and subsurface soil sampling results indicate that HE exceeds applicable MTCA Method B soil and groundwater cleanup levels near the zone of seasonal water table fluctuation in the immediate vicinity of the former UST. Other contaminants at the Site (below cleanup levels) include parent compound heptachlor and alpha- and gamma-chlordane (chlordanes). The proposed cleanup action consists of decommissioning two monitoring wells located inside the excavation area, removal and offsite disposal of contaminated soil located between 3 ft bgs and 10.5 ft bgs, Site restoration, and installation of

two replacement monitoring wells. Periodic groundwater sampling will be performed subsequent to the cleanup action.

## B. Hazard Description

1. **Background Review:**  Complete  Partial

If partial, why?

[Click here to enter text.](#)

2. **Hazardous Level:**  B  C  D (Modified)  Unknown

Justification: Existing data regarding site conditions and limited exposure based on field activities and equipment to be used.

3. **Types of Hazards: (Attach additional sheets as necessary)**

- A.  Chemical  Inhalation  Explosive  
 Biological  Ingestion  O<sub>2</sub> Def.  Skin Contact

Describe: Contact with soil or groundwater impact by HE.

- B.  Physical  Cold Stress  Noise  Heat Stress  Other

Describe: Physical hazards associated with drilling, excavations and confirmation soil sampling, and groundwater sampling.

- C.  Radiation

Describe: [Click here to enter text.](#)

4. **Nature of Hazards:**

- Air Describe: Potential for airborne dust and contamination.

- Soil Describe: Potential for contact with or ingestion of contaminated sediment during drilling and sampling.

- Surface Water Describe: [Click here to enter text.](#)

- Groundwater Describe: Potential for contact with or ingestion of contaminated groundwater during drilling and sampling.

- Other Describe: [Click here to enter text.](#)

5. Chemical Contaminants of Concern  N/A

Contaminant	PEL (ppm)	IDLH (ppm)	Source/Quantity Characteristics	Route of Exposure	Symptoms of Acute Exposure	Instruments Used to Monitor Contaminant
Heptachlor	0.5 mg/m <sup>3</sup>	35 mg/m <sup>3</sup>	May be present in soil.	Inhalation, absorption, ingestion, dermal contact.	Tremors, convulsion, liver damage (carcinogen).	Dust Control
Heptachlor Epoxide (HE)	0.5 mg/m <sup>3</sup>	Not available	Present in groundwater and soil.	Inhalation, absorption, ingestion, dermal contact.	Tremors, convulsion, liver damage (carcinogen)	Dust Control
Chlordane	0.5 mg/m <sup>3</sup>	100 mg/m <sup>3</sup>	Present in groundwater.	Inhalation, absorption, ingestion, dermal contact.	Blurred vision, delirium, cough, abdominal pain, nausea, vomiting, diarrhea (carcinogen).	Dust Control

Notes: Heptachlor changes to HE once mixed with water (including in the body).

PEL is the Permissible Exposure Limit for an 8 hour day.

mg/m<sup>3</sup> = milligrams per cubic meter

## 6. Physical Hazards of Concern N/A

Hazard	Description	Location	Procedures Used to Minimize Hazard
Drill rig, fork lift, and support vehicles	Moving parts of drill rig, forklift, and the support vehicles can be locations of falling and flying objects and pinch/crush points	Near drill rig for drilling and installation of two monitoring wells	Alert observation of surroundings; minimize time spent near drill rig and get driller's attention before approaching drill rig, forklift, or any vehicle; no loose clothing.
Open excavation	Excavations greater than 4-feet-deep pose a hazard of falls and sidewall collapse	Around excavations	Personnel will not be allowed to enter excavations greater than 4-feet-deep without shoring. Confirmation soil samples will be collected using an excavator bucket. While in an excavation less than 4 ft deep, workers' heads must not be allowed to break the plane of the top of the excavation so that in the case of a sidewall collapse, the worker's head and upper body are not buried.
Weather stress	Exposure to hot or cold temperatures, wind, and or rain	All areas of the site	Have drinking water accessible, wear appropriate clothing (light for heat, warm for cold), wear sunscreen protection, avoid caffeine, work in the shade when possible, and take short breaks in the shade as needed.
Slips, trips, and falls	Uneven terrain and drilling equipment	All areas of the site	Visual observations of terrain and hazards. Keep work area clear of debris.
Overhead and underground utilities	Damage to utilities through drilling and excavations	Around work area	Client to provide utility maps and a public utility locating service will be utilized. No raised drill rig towers within 20 ft of overhead power lines.
Travel to and from site	Operating motor vehicle in traffic on highways and rural roads.	Route to and from site from Landau Associates office	Operate motor vehicle while well rested and physically able to drive safely. Conduct pre-trip vehicle inspection, all vehicles to be maintained and in good working order. Obey all traffic laws including no cell phone use while driving. Secure all cargo properly to avoid shifting. Allow sufficient time for travel to site at safe speeds. Engage emergency brake when parking vehicles. Establish a planned route prior to departure. Be observant of unsafe road conditions and erratic/dangerous drivers.

**7. Work Location Instrument Readings**  N/A

Location:	
Percent O <sub>2</sub> :	Percent LEL:
Radioactivity:	PID:
FID:	Other:
Other:	Other:
Other:	Other:

Location:	
Percent O <sub>2</sub> :	Percent LEL:
Radioactivity:	PID:
FID:	Other:
Other:	Other:
Other:	Other:

Location:	
Percent O <sub>2</sub> :	Percent LEL:
Radioactivity:	PID:
FID:	Other:
Other:	Other:
Other:	Other:

Location:	
Percent O <sub>2</sub> :	Percent LEL:
Radioactivity:	PID:
FID:	Other:
Other:	Other:
Other:	Other:

**8. Hazards Expected in Preparation for Work Assignment**  N/A

Describe: [Click here to enter text.](#)

## C. Personal Protective Equipment

### 1. Level of Protection

A     B     C     D (Modified)

Location/Activity: All

A     B     C     D

Location/Activity: If action levels (Attachment A) are exceeded.

### 2. Protective Equipment (specify probable quantity required)

Respirator  N/A

SCBA, Airline

Full-Face Respirator

Half-Face Respirator (Cart. organic vapor) (Only if upgrade to Level C)

Escape mask

None

Other:

Other:

Clothing  N/A

Fully Encapsulating Suit

Chemically Resistant Splash Suit

Apron, Specify:

Tyvek Coverall

Saranex Coverall

Coverall, Specify

Other: Dedicated field clothing, highly visible safety vest

Head & Eye  N/A

Hard Hat

Goggles

Face Shield

Safety Eyeglasses

Other: Hearing protection

Hand Protection  N/A

Undergloves; Type: Nitrile

Gloves; Type:

Overgloves; Type:

None

Other:

Foot Protection  N/A

Neoprene Safety Boots with Steel Toe/Shank

Disposable Overboots

Other: Chemical Resistant Steel-Toe

Work Boots

### 3. Monitoring Equipment N/A

0 CGI

0 O<sub>2</sub> Meter

0 Rad Survey

0 Detector Tubes (optional)

Type:

0 PID

0 FID

0 Other

## D. Decontamination

Personal Decontamination     Required     Not Required

If required, describe: Decontaminate exposed skin before each break in the work shift and before eating or drinking using hot water and soap. Use disposable PPE and discard as solid waste. Avoid hand to mouth contact.

Equipment Decontamination     Required     Not Required

If required, describe: Decontamination of non-dedicated sampling equipment soil and groundwater sampling equipment with dry methods (brushing, scrubbing) and/or Alconox/tap water solution followed by tap water rinse. Field staff will be prepared to set up a wash sink on site. All contaminated water will be stored onsite.

**E. Activities Covered Under This Plan**

<b>Task No.</b>	<b>Description</b>	<b>Preliminary Schedule</b>
1	Monitoring well decommissioning and replacement; well development; initial sampling	September through October 2018
2	Excavation and disposal of contaminated soil; confirmation soil sampling	September through October 2018
3	Groundwater sampling	October 2018



## Emergency Facilities and Numbers

Hospital: Capital Medical Center, 3900 Capital Mall Drive SW, Olympia, Washington 98502  
 Telephone: 360-754-5858  
 Directions: Attachment B

Urgent Care Clinic: Urgent Care South, 6981 Littlerock Road SW #101, Olympia Washington ,  
 Telephone: 360-943-3633  
 Directions: Attachment C

Emergency Transportation Systems (Fire, Police, Ambulance) -- 911

Emergency Routes – Maps (Attachment B and C)

Emergency Contacts:

Name	Offsite	Onsite
Toni Smith	253-926-2493	208-275-9785
Eric Weber	253-926-2493	206-940-2406
Christine Kimmel	425-778-0907	206-786-3801

### **In the event of an emergency, do the following:**

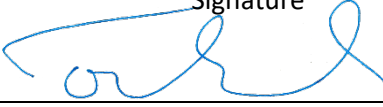



1. Call for help as soon as possible. Call 911. Give the following information:
  - a. WHERE the emergency is – use cross streets or landmarks
  - b. PHONE NUMBER you are calling from
  - c. WHAT HAPPENED – type of injury
  - d. WHAT is being done for the victim(s)
  - e. YOU HANG UP LAST – let the person you called hang up first.
2. If the victim can be moved, paramedics will transport to the hospital. If the injury or exposure is not life-threatening, decontaminate the individual first. If decontamination is not feasible, wrap the individual in a blanket or sheet of plastic (avoiding the head and face) prior to transport.

### **In the event of a non-emergency injury, do the following:**

1. Ask the injured person if you can help them.
2. Administer first aid to the skill level for which you have been trained and feel comfortable performing. If you are unsure if the emergency is life threatening or not, immediately call 911 and follow the steps above.
3. If the injury is minor, but some medical attention beyond the skills of site workers is required after administering first aid, the victim can be transported to the hospital following decontamination, if necessary. The directions to the nearest *Urgent Care Clinic* is provided in Attachment C.

### Health and Safety Plan Approval/Sign Off Form

I have read, understood, and agreed with the information set forth in this Health and Safety Plan (and attachments) and discussed in the Personnel Health and Safety briefing.

Click here to enter text.		Click here to enter text.
Name	Signature	Date
Click here to enter text.		Click here to enter text.
Name	Signature	Date
Click here to enter text.		Click here to enter text.
Name	Signature	Date
Click here to enter text.		Click here to enter text.
Name	Signature	Date
Toni Smith		January 19, 2017
Task Manager	Signature	Date
Sierra Mott		January 19, 2017
Site Safety Coordinator	Signature	Date
Christine Kimmel		January 19, 2017
LAI Health and Safety Manager	Signature	Date
Eric Weber		January 19, 2017
Project Manager	Signature	Date

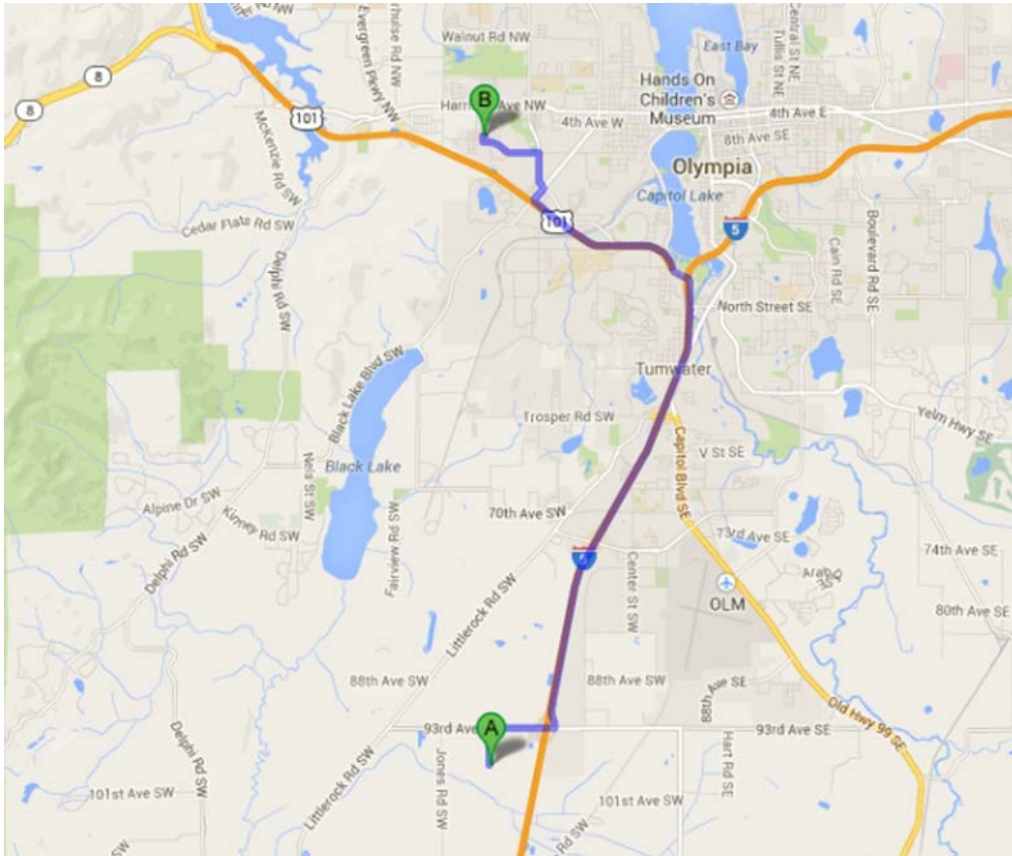
Personnel Health and Safety Briefing Conducted by:

Sierra Mott		Click here to enter text.
Name	Signature	Date

**Attachment A**  
**Action Levels for Respiratory Protection**

Monitoring Parameter	Reading	Level of Protection
Dust	Visible Dust	Apply moisture to soil, if dust persists then upgrade to Modified Level D PPE and monitor dust level at work perimeter

## Attachment B Directions to Hospital

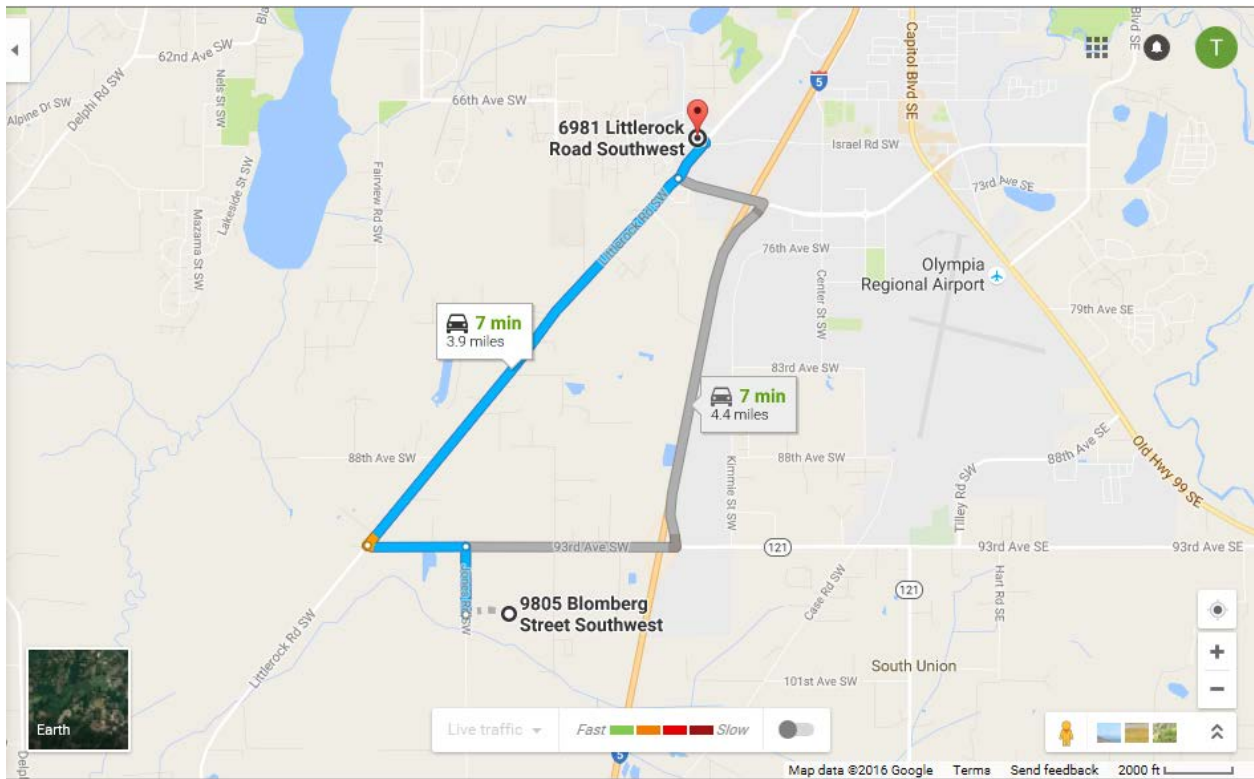


**A** 9805 Blomberg St SW, Olympia, WA 98512

- |    |   |                           |
|----|---|---------------------------|
| 1. | Head north on <b>Blomberg St SW</b> toward <b>93rd Ave SW</b><br>About 54 secs                            | go 0.4 mi<br>total 0.4 mi |
|    | 2. Take the 1st right onto <b>93rd Ave SW</b><br>About 2 mins   | go 0.7 mi<br>total 1.1 mi |
|    | 3. Turn left to merge onto <b>I-5 N</b><br>About 5 mins   | go 4.8 mi<br>total 5.8 mi |
|    | 4. Take exit <b>104</b> to merge onto <b>US-101 N</b> toward <b>Aberdeen/Port Angeles</b><br>About 2 mins | go 1.7 mi<br>total 7.6 mi |
|    | 5. Take the <b>Black Lake Blvd</b> exit toward <b>W Olympia</b>   | go 0.4 mi<br>total 8.0 mi |
|    | 6. Keep right at the fork, follow signs for <b>West Olympia</b> and merge onto <b>Black Lake Blvd SW</b>  | go 0.2 mi<br>total 8.1 mi |
|    | 7. Turn left onto <b>Cooper Point Rd SW</b><br>About 52 secs  | go 0.4 mi<br>total 8.5 mi |
|    | 8. Turn left onto <b>Capital Mall Dr SW</b><br>About 2 mins   | go 0.6 mi<br>total 9.1 mi |
|    | 9. Turn right   | go 312 ft<br>total 9.2 mi |
|    | 10. Turn left<br>Destination will be on the right   | go 75 ft<br>total 9.2 mi  |

**B** **Capital Medical Center**  
3900 Capitol Mall Dr SW, Olympia, WA 98502

### Attachment C Directions to Urgent Care Center



#### 9805 Blomberg Street Southwest

Olympia, WA 98512

- ↑ 1. Head north on Jones Rd SW toward 93rd Ave SW
- ↶ 2. Turn left onto 93rd Ave SW
- ↷ 3. Turn right onto Littlerock Rd SW
- 📍 4. At the traffic circle, take the 2nd exit and stay on Littlerock Rd SW
- 📍 5. At the traffic circle, take the 3rd exit onto 70th Ave SW  
[i](#) Destination will be on the right

#### 6981 Littlerock Road Southwest

Tumwater, WA 98512