

Off-Property Portion Engineering Design Report

Former Pacific Wood Treating Co. Site
Facility ID 1019, Cleanup Site ID 3020

Prepared for:

Port of Ridgefield

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Project No. M9003.01.061

Prepared by:

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Former Pacific Wood Treating Co. Site Facility ID 1019, Cleanup Site ID 3020

*The material and data in this report were prepared
under the supervision and direction of the undersigned.*

Maul Foster & Alongi, Inc.

2/20/2025

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Phil Wiescher, PhD
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Abbreviations

bgs	below ground surface
BMP	best management practice
the City	City of Ridgefield
CRZ	critical root zone
CUL	cleanup level
cy	cubic yards
dioxins	chlorinated dibenzo-p-dioxins and dibenzofurans
Ecology	Washington State Department of Ecology
EDR	engineering design report
EPA	U.S. Environmental Protection Agency
FS	feasibility study
Ft	foot
LA	landscape architect
LRIS	Lake River Industrial Site
MFA	Maul Foster & Alongi, Inc.
MTCA	Model Toxics Control Act
NAVD	North American Vertical Datum of 1988
ng/kg	nanograms per kilogram
OPP	off-property portion
OSHA	U.S. Occupational Safety and Health Administration
the Port	Port of Ridgefield
PWT	Pacific Wood Treating Co.
RCRA	Resource Conservation and Recovery Act
RCW	Revised Code of Washington
RI	Remedial Investigation
ROW	right-of-way
SAP	sampling and analysis plan
the site	former PWT site
TEF	toxicity equivalency factor
TEQ	toxicity equivalent
WAC	Washington Administrative Code

1 Introduction

On behalf of the Port of Ridgefield (the Port), Maul Foster & Alongi, Inc. (MFA) has prepared this engineering design report (EDR) for soil removal and restoration in impacted areas of the off-property portion (OPP) of the former Pacific Wood Treating Co. (PWT) site (the site) in Ridgefield, Washington. The OPP adjoins the Port's waterfront property formerly known as the Lake River Industrial Site (LRIS) (see Figure 1-1). This document has been prepared for the Washington State Department of Ecology (Ecology) to summarize the remedial design for OPP cleanup consistent with WAC 173-340-400(a).

1.1 Definition of Site and Off-Property Portion

The site is located at and near 111 West Division Street in Ridgefield, Washington (see Figure 1-1). PWT operated a wood-treating facility at the LRIS from 1964 to 1993. These operations resulted in the release of hazardous substances, including chlorinated dibenzo-p-dioxins and dibenzofurans (dioxins). The site is defined by the extent of contamination caused by the release of hazardous substances from the former wood-treating operations. The site constitutes a "Facility" under Revised Code of Washington (RCW) 70.105D.020(4). The areas addressed by previous site investigations and remedial actions include the LRIS, Port-owned properties, and nearby water bodies (Carty Lake and Lake River), pursuant to the 2013 Consent Decree (Ecology, 2013b).

The OPP refers to the portion of the site where further investigation was required under the Order. The OPP includes the ROWs and residential properties shown in Figure 1-1.

1.2 Purpose and Objectives

This report is intended to fulfill Ecology's requirement for an EDR summarizing the remedial action design as specified in the Ecology-approved remedial investigation and feasibility study (RI/FS) (MFA, 2025) and in the CAP (Ecology, 2025). This report is also intended to support the Port's application for construction and environmental permits from local and state agencies (or meet the substantive requirements of said permits). The Port will use these design elements as the basis for a submittal to the City of Ridgefield for an evaluation of whether the proposed design meets the substantive requirements of city code. Design changes that are developed as part of the permitting and agency review processes, in addition to other design refinements from further consultation with homeowners, will be incorporated into the final design.

1.3 Regulatory Framework

The 2013 Consent Decree required certain cleanup actions, which have been substantively completed, for the following portions of the site: the LRIS, Port-owned properties, Carty Lake, and Lake River. The cleanup actions for these areas are described in the Ecology-issued CAP (Ecology, 2013a). The 2013 Consent Decree required additional remedial characterization for the OPP and

mandated that the work be conducted under a separate Agreed Order No. DE 11057 (the Order; Ecology, 2013b).

Ecology and the Port entered into the Order in December 2014. The Order requirements included preparing an RI/FS and a draft CAP pursuant to MTCA. An Ecology-approved RI work plan was prepared in April 2015 (MFA, 2015). RI activities were conducted in 2015–2024 to define the lateral and vertical contamination extent. Interim action cleanup was conducted in 2016 and 2017 to remedy 29 OPP properties and ROWs. An additional 15 properties and ROWs were identified for cleanup to be conducted as part of a final cleanup action. The OPP RI/FS report summarizing the RI results, the interim action, and a feasibility study (FS) for the remaining cleanup areas was finalized in early 2025 (MFA, 2025). The CAP for the OPP was also finalized in early 2025 (Ecology, 2025), to satisfy the remaining requirements of the Order.

A forthcoming Agreed Order No. DE 12769 for implementation of the remaining cleanup for the OPP (15 properties and ROWs) will be finalized in early 2025.

1.4 Selected Remedial Action

The remedial action objectives identified in the CAP (Ecology, 2025) were selected based on the findings of the RI/FS (MFA, 2025). They include:

- Soil with dioxin TEQ exceeding 13 ng/kg will be excavated.
- Pre-design vertical extent sampling for select ROW areas.
- Clean soil will be imported and placed in yards; crushed surfacing will be placed in ROWs. Imported fill will be tested for a suite of contaminants.
- Excavated material will be disposed of as nonhazardous material waste at a Subtitle D landfill facility. The excavated material will not be designated as either a Resource Conservation and Recovery Act (RCRA)-listed hazardous waste or a RCRA characteristic waste (see Appendix A).
- Yard and ROW landscaping will be restored.

2 Background

2.1 Former Pacific Wood Treating Co. Site History

The OPP is east and upgradient of the LRIS. Figure 1-1 shows the OPP and vicinity, including the Port-owned, approximately 40-acre LRIS. PWT leased the LRIS from 1964 to 1993. PWT's operations involved pressure-treating wood products with oil-based treatment solutions containing creosote, pentachlorophenol (PCP), and water-based mixtures of copper, chromium, arsenic, and/or zinc. Potential release and transport mechanisms are described in the 2013 site RI/feasibility study (FS) report (MFA, 2013). PWT filed for bankruptcy in 1993 and abandoned the LRIS. The Port established office spaces on the LRIS and manages the property. Multiple upland and in-water cleanup actions have been substantively completed, as summarized in the RI/FS (MFA, 2025).

2.2 Off-Property Setting

The OPP is located in section 24, township 4 north, range 1 west, Willamette Meridian. The OPP is zoned mostly low-density residential, and a few tax lots are zoned parks/open space or central mixed use. The land use is not expected to change. In the OPP vicinity, nonresidential zoning designations (waterfront-mixed use) apply to the Union Pacific railroad tracks, the Port-owned Railroad Avenue properties, and the LRIS to the west (see Figure 2-1). There is substantial development in the OPP, with minimal viable ecological habitat.

2.2.1 Topography

The OPP is relatively flat, with a slight downward slope from east to west. The elevation ranges from approximately 90 feet National Geodetic Vertical Datum of 1929/1947 (NGVD) in the east to approximately 50 feet NGVD at the western extent.

2.2.2 Area Geology

Four principal geologic units have been identified at the nearby Port-owned waterfront property (MFA, 2013): fill, younger alluvium, older alluvium, and the upper Troutdale Formation. The younger alluvium (clayey silts, sandy silts, and sands) appears to be thicker to the west near Lake River, and the older alluvium (sandy gravel) appears to be thicker to the east. The silty gravel observed beneath the alluvium forms an aquitard and may represent the top of the Troutdale Formation. Note that the Port-owned waterfront property is west of the OPP and is approximately 10 to 70 feet lower in elevation.

Groundwater in the vicinity of the OPP is not used for drinking. Drinking water is provided by the City of Ridgefield (the City), i.e., municipal water supply. Based on the Clark County Maps Online database, no domestic drinking water wells were identified in the OPP. The closest domestic drinking water wells belong to the City. These wells are located approximately 2,000 feet (0.4 mile) upgradient of the OPP, in Abrams Park. Mr. Steven Wall, PE, the City's former public works director, stated that, in the future, water wells will not be installed west of Abrams Park, in the direction of the OPP (Wall, 2006). If additional water needs arise, beyond the installation of additional wells at Abrams Park and/or the I-5 junction, the City will install wells east of I-5.

2.2.3 Climate

Climate trends for the northwest region of the U.S. include: increased temperatures during all seasons under all future scenarios; decreased snowpack; increased wildfires and insect infestations; decreased rainfall and water availability during the dry season; increased flooding during the wet season; a rising sea level; increased storm surge events; more frequent heat waves; and increased risk of landslide and erosion. The most applicable climate related vulnerabilities to the OPP are decreased rainfall during the dry season and more frequent heat waves.

According to the University of Washington Climate Mapping tool for Clark County (<https://data.cig.uw.edu/climatemapping>), the OPP is located in an area with predicted increased drought, higher extreme heat, increased frequent heavy magnitude precipitation events resulting in increased streamflow volumes, and increased high fire danger days. Other climate change impacts are not as likely to significantly affect the OPP.

2.2.4 Other considerations

Seismic risk is considered moderate in Ridgefield and while earthquakes can occur with some frequency, most are too small to be felt or cause damage (<https://www.dnr.wa.gov/programs-and-services/geology/geologic-hazards/earthquakes-and-faults>).

The City of Ridgefield is planning ROW and sidewalk improvements in select areas of Ridgefield, including areas that overlap with the remedial action area. This includes new waterline, drainage improvements, street improvements, and new sidewalks in the area between Hall Street and Elm Street. Construction is planned for 2025, and the Port is coordinating with the City to ensure that the remedial action in affected ROWs integrates with planned improvements. The Port and the City will continue coordination efforts.

3 Description of Remedial Action

The remedial alternative identified in the FS is excavation and off-site disposal of soil in yards and ROWs with dioxin TEQ greater than 13 ng/kg, and restoration. Total soil removal will be approximately 3,500 cubic yards to between 1 and 2 feet below ground surface (bgs). The following sections describe the remedial action area, the remedial action approach, and associated documentation and schedule.

3.1 Remedial Action Areas

An interim action was completed in 2016 and 2017 for 29 residential properties and adjacent ROWs (see Figure 3-1). The interim action included soil removal from residential properties and adjacent ROWs that exceeded the MTCA Method B cleanup level (CUL) for the dioxin TEQ greater than 13 ng/kg, and restoration (MFA, 2018). The cleanup in this area is complete and will be part of the final cleanup for the OPP.

The remaining cleanup areas to be addressed are based on the results of the RI and do not include the interim action area, as shown in Figure 3-1. Two phases are planned for cleanup as summarized in Table 3-1. Phase 1 will be conducted in 2025 and will address 10 properties and adjacent ROWs. Phase 2 will be conducted when additional funding becomes available and will include 5 properties and ROWs.

Sampling results are here further described for yards and ROWs and were collected under a RI work plan and subsequent site-specific sampling and analysis plans (MFA, 2015; 2023a). Table 3-2 presents dioxin results for all yard samples collected from 2015 through 2024. Surface soils in multiple properties exceed the CUL (see Figure 3-2). Concentrations are generally highest along Division Street near Railroad Avenue and farther east on Division Street and along North 3rd Avenue, likely reflecting historical truck traffic. Aerial deposition, vehicle tracking, and/or common ubiquitous sources also likely contribute to elevated concentrations. The vertical extent of dioxin contamination is bounded for all yards and does not exceed 2 feet bgs and is typically between 1 to 1.5 feet bgs. The subsurface concentrations are typically lower than corresponding surface concentrations,

reflecting the limited mobility of dioxins. All sampling results and data validation are provided in the RI/FS (MFA, 2025). The associated data validation memorandum is presented in Appendix B.

Table 3-3 presents dioxin results for all surface and subsurface ROW samples collected from 2015 through 2017. Surface results demonstrate that dioxin concentrations in ROWs exceed the CUL, as shown in Figure 3-3, and concentrations generally decrease with depth (MFA, 2025). Concentrations are highest along the western portion of Division Street near Railroad Avenue and on North 3rd Street, likely reflecting historical traffic along the truck route. The vertical extent of ROW dioxin contamination does not exceed 1.5 feet bgs in the interim action area remediated in 2016 and 2017. Surface concentrations in the remaining ROWs are lower than those observed in the interim action area and subsurface vertical extent is not anticipated to exceed 1.5 feet bgs. The vertical extent for Phase 1 ROWs (2025 construction) was determined based on adjacent subsurface yard results. The vertical extent for select Phase 2 ROWs may be further refined during Phase 2 design activities, as determined in coordination with Ecology.

3.2 Remedial Action Components

The primary remedial action components are:

- Soil with dioxin TEQ exceeding 13 ng/kg will be excavated.
- Clean soil will be imported and placed in yards; crushed surfacing will be placed in ROWs. Imported fill will be tested for a suite of contaminants (metals, PAHs, SVOCs, dioxins).
- Excavated material will be disposed of as nonhazardous material waste at a Subtitle D landfill facility. The excavated material will not be designated as either a Resource Conservation and Recovery Act (RCRA)-listed hazardous waste or a RCRA characteristic waste (see Appendix A).
- Yard and ROW landscaping will be restored.

Full cleanup is proposed for the yards and ROWs. All accessible soil that exceeds the CUL will be excavated. Accessible soils are those not covered by permanent structures (such as homes and garages) or asphalt or concrete paving (such as sidewalks, driveways, patios, and parking areas). During cleanup design activities, it may be determined that additional areas will not be cleaned up (e.g., areas that are too difficult or dangerous to reach, such as under structures affixed to houses, under certain decks or sheds, along steep slopes, and adjacent to retaining walls).

Ecology and the Port will work with the property owner to develop a cleanup plan. A minimum of two visits are scheduled with the owner to:

- Explain the human health risks associated with dioxins above the CUL and the need for cleanup.
- Verify and survey cleanup areas.
- Establish the restoration design.
- Provide information on pre-cleanup activities and owner responsibilities.
- Provide information about the cleanup and restoration timeline.
- Provide information regarding landscape care following yard restoration.

The Port and the property owner will sign a cleanup contract before cleanup is implemented. The cleanup will be designed to constitute a final cleanup action and no institutional controls (e.g.,

environmental covenants or deed restrictions) will be placed on the properties. Ecology and the Port will oversee the cleanup, and Ecology will approve restoration decisions. The cleanup and restoration process is further described in the following subsections.

3.2.1 Cleanup Approach

Prior to cleanup, topographic, public and private utility, and vegetation surveys will be conducted to inform the cleanup design. Property owners will be responsible for removing nonpermanent structures from the yard and the adjacent ROW (e.g., piles of wood, debris, toys, piles of soil, lawn furniture, fire pits, vehicles). Existing fences in areas identified for cleanup typically will remain in place during excavation. Fence panels may be temporarily removed to facilitate construction access.

Existing small shrubs, groundcovers, and lawns that are in areas identified for cleanup will be removed or transplanted to facilitate soil excavation. Existing large woody vegetation (trees and large shrubs, herein referred to as trees) will be handled on a case-by-case basis. If preservation of the tree is desired, trees will be surveyed by a certified arborist; this survey effort will include delineation of the critical root zone (CRZ) and an evaluation of the health/viability of individual trees. Where practicable and if desired by the homeowner, existing, viable trees will be preserved during construction by the following practices:

- Delineation of the CRZ by construction fencing
- Prohibition of construction equipment entry into and transit within the CRZ
- Hand excavation of soil in the CRZ
- Restoration of soil near roots (following excavation and survey of post-excavation grade)
- Informing the homeowner of any soil within the cleanup horizon that may have to remain to preserve the tree
- Covering clean fill soil around the tree with mulch
- Additional precautions as recommended by the project arborist

Trees that are identified as unhealthy/inviable will be removed before soil excavation and may be replaced with a nursery-stock tree as part of the landscape restoration.

Contamination exceeding the CUL will be removed. A minimum of 1 foot of soil will be excavated and will be replaced with clean soil or, in ROWs, with crushed surfacing. Excavations adjacent to existing hardscaping (e.g., roads, driveways) and structures will be constructed with sideslopes to avoid undermining. Excavations on steeper slopes may be benched to allow compaction of clean fill during restoration. Means such as hand excavation may be used to remove soils to the maximum extent practicable.

The Port will ensure that best management practices (BMPs) are being followed. BMPs for soils and stormwater will be used to during excavation and removal eliminate or minimize any releases of contaminants. BMPs may include:

- Dampening soil to limit dust
- Avoiding overwatering to prevent erosion or migration of contaminated soil
- Covering disturbed soil, open excavations, and soil piles with plastic sheeting to reduce stormwater contact with potentially contaminated soil and soil runoff

- Loading trucks in a careful, controlled manner to minimize spillage, and placing plastic sheeting beneath the swing path of the excavator to contain any soil that is spilled
- Using rubber rumble strips immediately adjacent to loading areas to dislodge loose soil from truck tires before trucks leave the site
- Covering soil loads before trucks leave the work site
- Monitoring roadways to ensure that soil is not being tracked off site
- Street sweeping (if required) to removed tracked soil from roadways

Following excavation, each yard will be surveyed by the contractor; this topographic survey will be submitted to the engineer for approval. Alternative means, such as grade stakes, may also be used to verify excavation completion. The engineer will compare the elevations of the excavation to the preconstruction elevations to ensure that the full excavation extent has been achieved prior to placement of clean soil and restoration.

A structural engineer will be retained by the Port to evaluate existing foundation conditions immediately prior to construction. This evaluation will document visible cracks or other indications of pre-existing damage. Following construction, the structural engineer will re-evaluate each foundation to ensure that there has been no foundation damage as a result of the construction activities. The Port will keep these pre- and post-construction foundation inspection records on file; these records will be made available to the property owner upon request.

3.2.2 Restoration Approach

Property owners will be provided with two options for yard restoration:

1. Restore with lawn and mulched bed(s).
2. Restore with the same or in-kind landscaping that was removed.

All property owners will have the opportunity to meet with a landscape architect (LA), licensed in the State of Washington, to develop the property landscape restoration design during the cleanup planning visit(s). During this consultation, the LA will present the restoration options to the property owner and the preferred option and configuration will be selected.

Option 1 will include restoration with lawn, mulched bed(s), or a combination of the two. The restoration planting installation available to each property owner will be based on the total area of landscape impacted, multiplied by an installation unit price. The LA will provide the property owner with a preselected palette of native and adaptive vegetation. Together they will determine the desired extents of lawn and/or mulched bed(s) in the cleanup areas. Provisions to remove and replant, replace, or retain plants of special concern to the property owner will be made. The LA will then prepare a design that will not exceed the predetermined installation cost.

Some of the property owners may prefer to restore the impacted areas with the same or in-kind landscape that was in place prior to cleanup (Option 2). A limited number of properties identified for cleanup have well-established landscapes; The LA will perform a comprehensive evaluation and documentation of the preconstruction landscaping; this effort will include identification of vegetation locations and species as well as the dimensions and orientation of all landscape design elements to be replaced. The LA will then prepare a restoration design as part of the cleanup plan.

Protecting existing trees during the cleanup may not be feasible if the arborist determines that the tree is unhealthy/inviable (see Section 3.2.1); therefore, property owners may be given the option of having a tree(s) replaced with a nursery-stock tree following completion of the cleanup.

Any fences and ROW features (signage, etc.) removed or disturbed during construction will be restored.

Ecology and the Port will provide information to property owners regarding appropriate lawn and vegetation care to support successful establishment of landscaping and will provide 30 days of temporary landscape maintenance including reseeding as needed.

3.3 Health and Safety Procedures

A site-specific health and safety plan, consistent with WAC 173-340-810, has been provided (MFA, 2023b). The remedial action will be conducted according to WAC 173-340-810; the Occupational Safety and Health Act (OSHA) of 1970 (29 U.S. Code Sec. 651 et seq.); the Washington Industrial Safety and Health Act (Chapter 49.17 RCW); and relevant regulations.

The Port will retain a contractor that will complete the work in compliance with OSHA regulations. The contractor will be required to use a crew that has received Hazardous Waste Operations and Emergency Response Standard 40-hour training.

3.4 Compliance with Applicable State and Federal Laws

The remedial action will be conducted consistent with applicable state and federal laws, as discussed in Appendix C.

3.5 Cultural Resources

Systematic archaeological surveys were conducted in January 2024 on properties to which access was granted to determine if archaeological resources are present. The investigation conducted consisted of a pedestrian survey and excavation of 35 shovel probes on 10 properties. Archaeologists identified one new archaeological resource and recommended that the resource is not eligible for listing. It was recommended cleanup can proceed in the surveyed area as planned, and that no additional archaeological investigations are necessary prior to the start of project activities; that an inadvertent discovery plan be developed and kept on site at all times during ground-disturbing work and that the contractor receive inadvertent discovery plan training; and that should unanticipated archaeological or historical resources be encountered during project activities, all ground-disturbing activity in the vicinity of the find should be halted and the Washington Department of Archaeology and Historic Preservation (DAHP) should be notified immediately. The cultural resources survey report is provided in the RI/FS (MFA, 2025). DAHP was notified of the results and provided with a copy of the cultural resource survey. DAHP did not comment on the results which is typical for isolates which are non-tribal. The cleanup action will be conducted consistent with the cultural resource contractor recommendations.

3.6 Public Participation

A public participation plan was prepared by Ecology and implemented in coordination with the Port (Ecology, 2014). The plan describes the tools Ecology has used and will continue to use to inform the public during project activities. The plan is intended to address concerns from individuals, community groups, local governments, tribes, federal and state agencies, and any other organization that may have an interest in or knowledge of the OPP. Ecology and the Port will continue coordination to ensure that cleanup activities account for community input. Efforts to ensure that cleanup property owners and tenants as well as the broader community are aware of activities include property visits, fact sheet distribution, and temporary signage during construction activities. In addition, the public comment period for the project was open between January 9 and February 10, 2025. No comments were received and no changes to the documents were requested. Common community concerns include noise and traffic, short- and long-term risks, cleanup and restoration procedures, and the time frame of project activities.

3.7 Schedule

Ecology approval is required before cleanup can begin. The Phase 1 cleanup is planned to begin in summer 2025. The Port has achieved consensus on conceptual cleanup plans with all ten property owners slated for construction in 2025. Construction plans and specifications consistent with WAC 173-340-400(b) were provided for Ecology review 2024. Following Ecology approval of the plans, cleanup agreements that incorporate the construction plan, a cleanup contract, and any additional property-specific design elements were prepared for owners. Homeowners provided the signed cleanup agreements before the end of 2024.

Work mobilization is expected to begin in summer 2025. Owners will be notified of the work start date at least one week in advance. Prior to the cleanup implementation, imported soil fill testing results will be provided to Ecology. Within 90 days of completion of the cleanup, completion reporting incorporating the following items will be submitted to Ecology:

- Review of construction quality assurance documentation,
- Public communications,
- Remedial action methods,
- Property and ROW remediation summaries,
- Record drawings, and
- Documentation and certification including disposal documentation and photos.

Following completion reporting, all homeowners will be provided property-specific construction completion packages including record drawings and the Port will acquire yard closeout agreements specifying all activities have been completed.

Phase 2 cleanup will be initiated once additional funding sources have been identified.

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Limitations

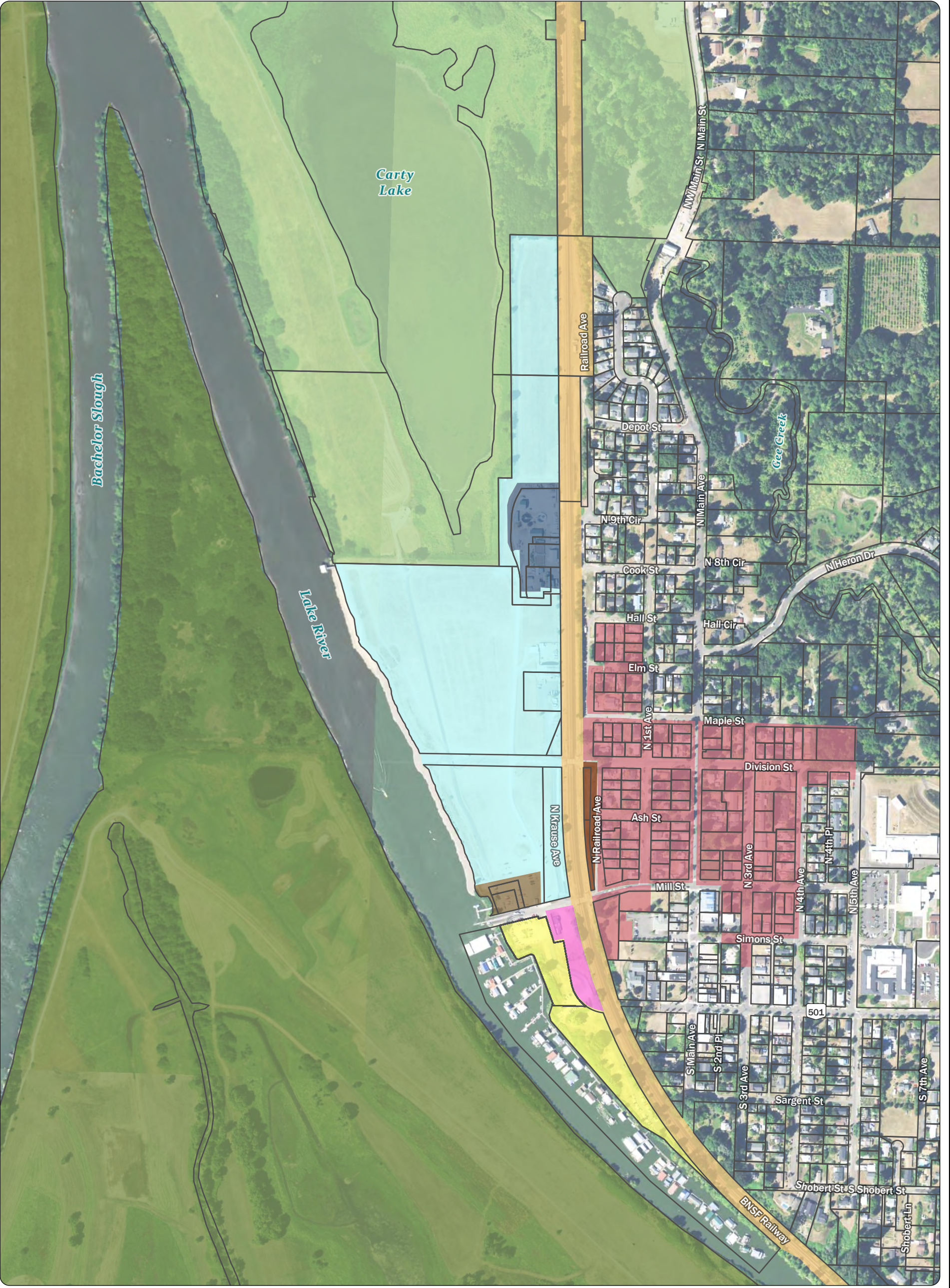
The services undertaken in completing this report were performed consistent with generally accepted professional consulting principles and practices. No other warranty, express or implied, is made. These services were performed consistent with our agreement with our client. This report is solely for the use and information of our client unless otherwise noted. Any reliance on this report by a third party is at such party's sole risk.

Opinions and recommendations contained in this report apply to conditions existing when services were performed and are intended only for the client, purposes, locations, time frames, and project parameters indicated. We are not responsible for the impacts of any changes in environmental standards, practices, or regulations subsequent to performance of services. We do not warrant the accuracy of information supplied by others, or the use of segregated portions of this report.

Figures



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Data Sources
 Aerial photograph obtained from the U.S. Department of Agriculture; parcels obtained from Clark County (2024).












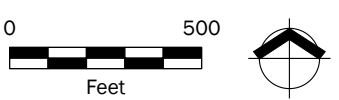
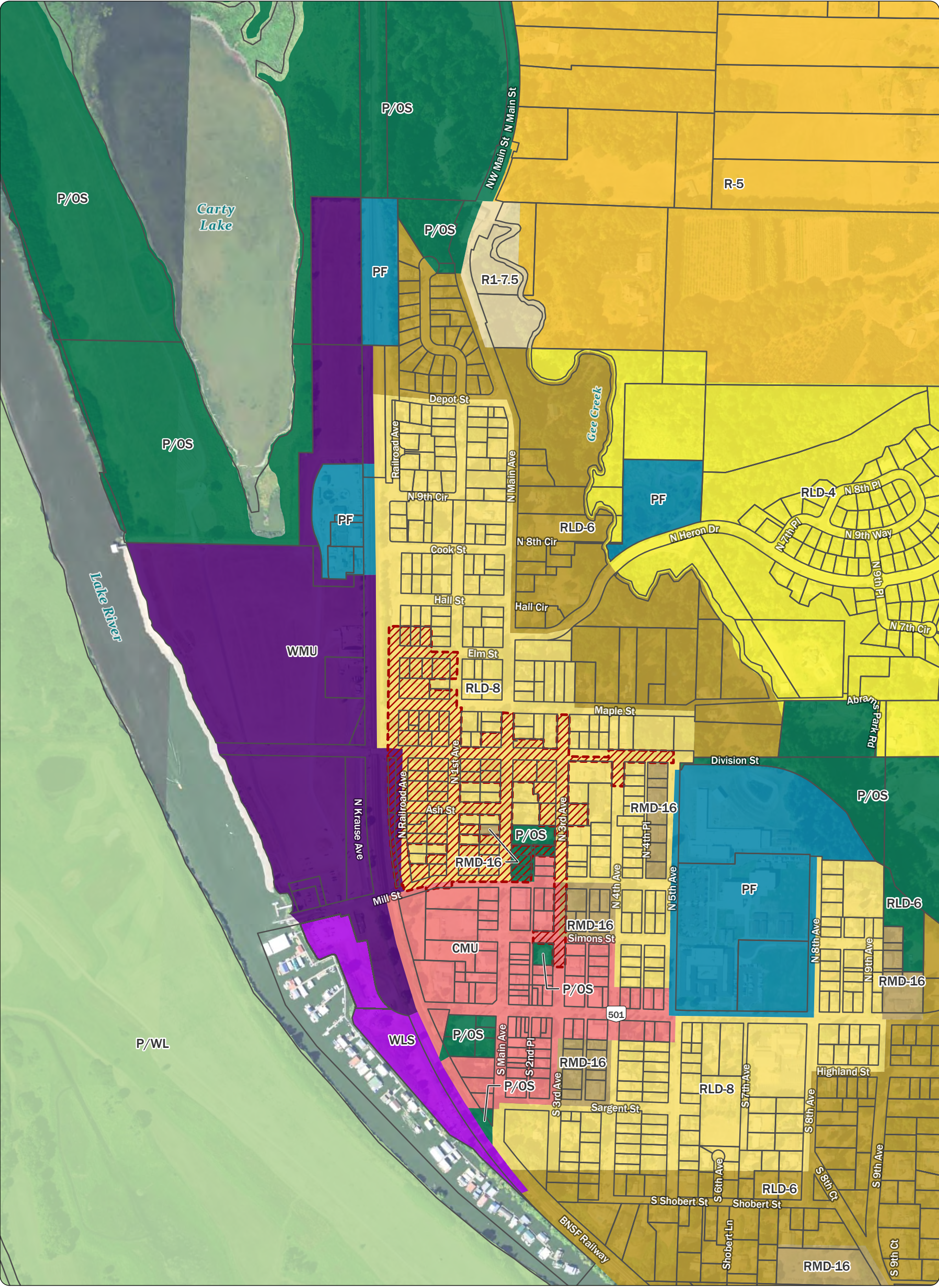
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|---|--|
|  Parcel |  McCuddy's Marina Property |
| Area Designations |  Ridgefield National Wildlife Refuge - Carty Unit |
|  Port Overpass Property |  Ridgefield National Wildlife Refuge - River S Unit |
|  Lake River Industrial Site |  BNSF Railroad Property |
|  City of Ridgefield Wastewater Treatment Plant |  Port Marina Property |
|  Port Railroad Avenue Property |  Off-Property Portion |

Figure 1-1
Site Vicinity
 Former Pacific Wood Treating Site
 Ridgefield, WA



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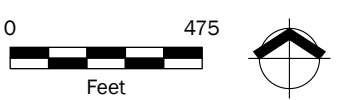


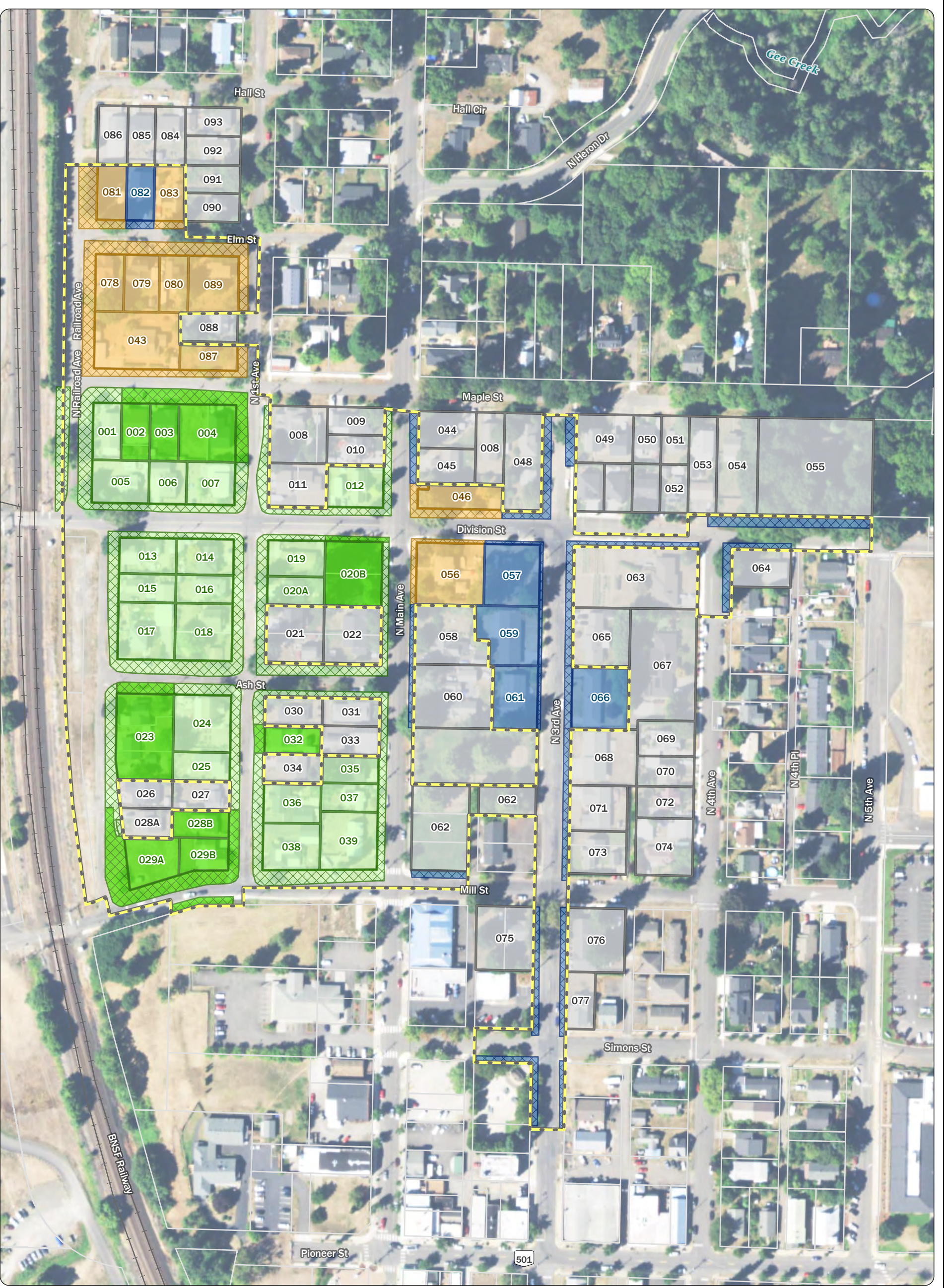


Data Sources
 Aerial photograph obtained from the U.S. Department of Agriculture; zoning obtained from the City of Ridgefield; parcels obtained from Clark County (2024).

Parcel	Rural-5 (R-5)
Off-Property Portion Site	Central Mixed Use (CMU)
Zoning	Waterfront Low Scale (WLS)
Single Family Residential (R1-7.5)	Waterfront Mixed Use (WMU)
Residential Low Density - 4 (RLD-4)	Parks/Open Space (P/OS)
Residential Low Density - 6 (RLD-6)	Parks/Wildlife refuge (P/WL)
Residential Low Density - 8 (RLD-8)	Public Facilities (PF)
Residential Medium Density (RMD-16)	

Figure 2-1
Zoning Designations
 Former Pacific Wood Treating Site
 Ridgefield, WA





Note
ROW = right of way.

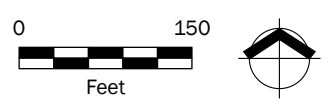
Data Sources
Aerial photograph obtained from the U.S. Department of Agriculture; parcels obtained from Clark County (2024).

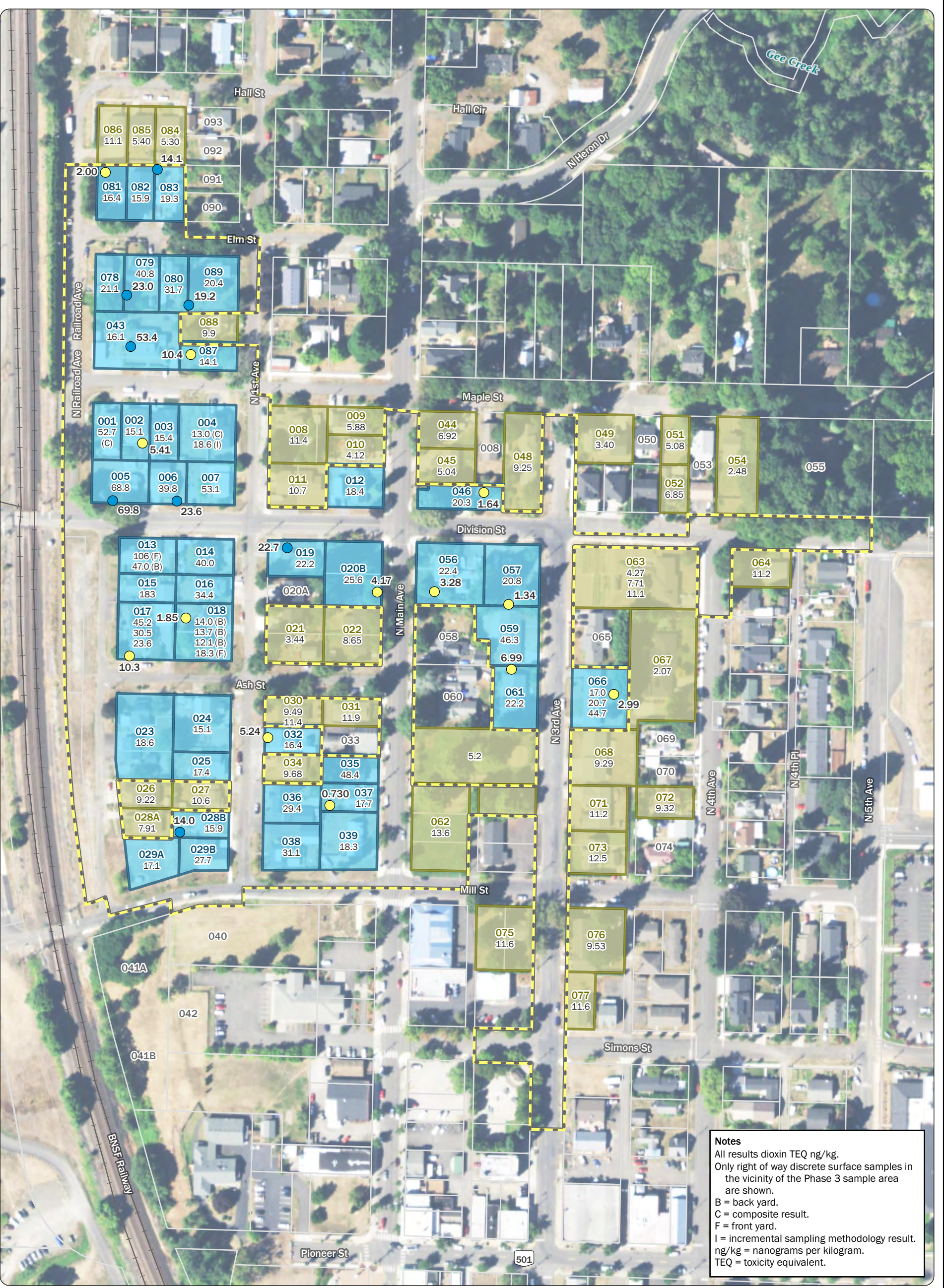
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Property Cleanup Status		Right of Way Cleanup Status		Off-Property Portion Site
	Phase 1 (2024) Cleanup Property		Phase 1 (2024) ROW Cleanup Area	
	Phase 2 Cleanup Property		Phase 2 ROW Cleanup Area	
	2016 Cleanup Property (Completed)		2016 ROW Cleanup Area (Completed)	
	2017 Cleanup Property (Completed)		2017 ROW Cleanup Area (Completed)	
	No Cleanup Needed			

**Figure 3-1
Cleanup Status**
Former Pacific Wood Treating Site
Ridgfield, WA





Notes
 All results dioxin TEQ ng/kg.
 Only right of way discrete surface samples in the vicinity of the Phase 3 sample area are shown.
 B = back yard.
 C = composite result.
 F = front yard.
 I = incremental sampling methodology result.
 ng/kg = nanograms per kilogram.
 TEQ = toxicity equivalent.

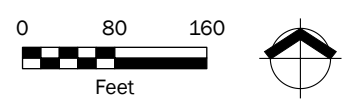
Data Sources
 Aerial photograph obtained from the U.S. Department of Agriculture; parcels obtained from Clark County (2024).

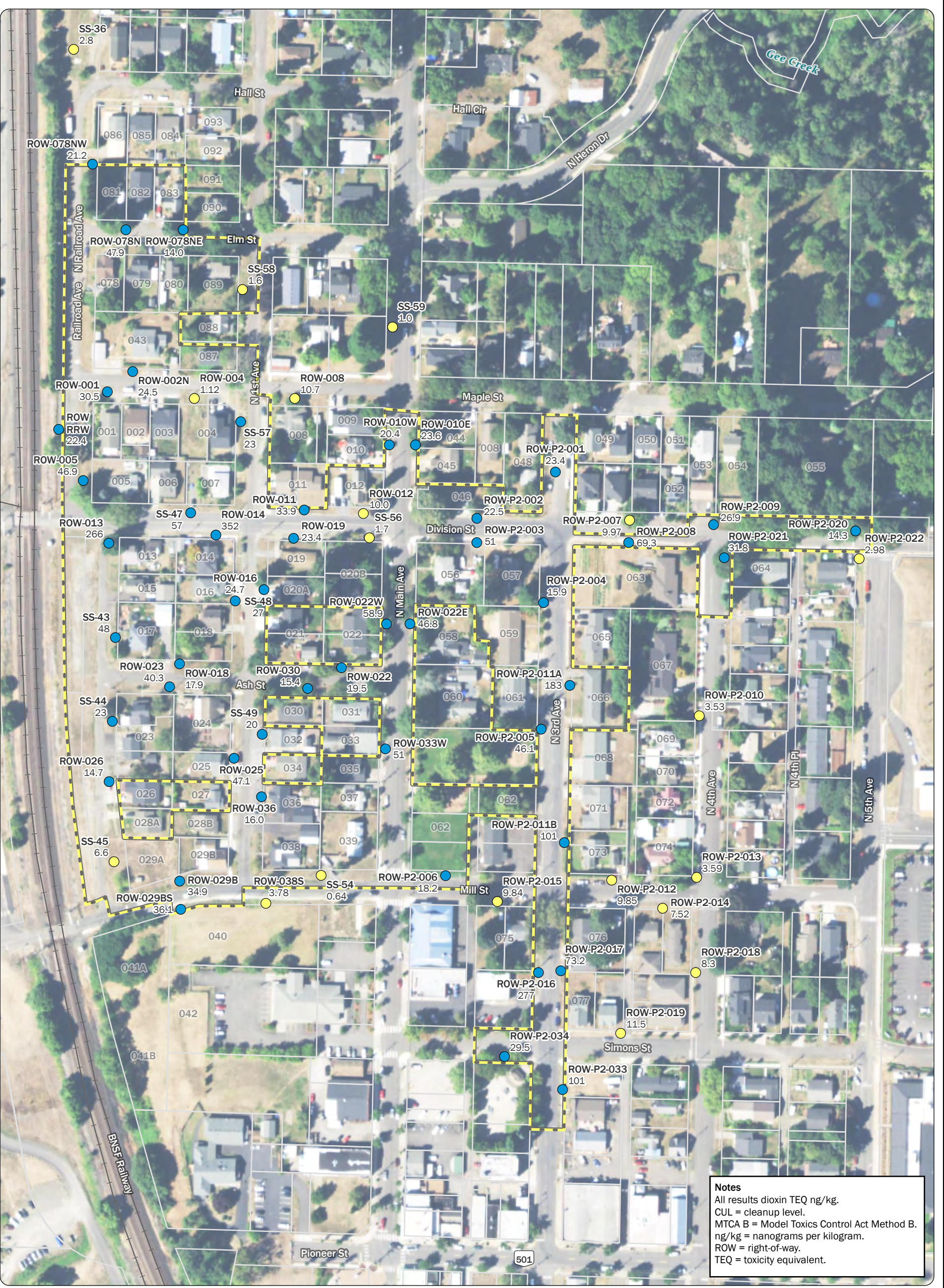
- Legend**
- Subsurface Meets Acceptable Risk Level
 - Subsurface Exceeds Acceptable Risk Level
 - Off-Property Portion Site
 - Parcel
 - Surface Meets Acceptable Risk Level
 - Surface Exceeds Acceptable Risk Level
 - Railroad

Figure 3-2
Yard Soil
Sample Results
 Former Pacific Wood Treating Site
 Ridgefield, WA



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Notes
 All results dioxin TEQ ng/kg.
 CUL = cleanup level.
 MTCA B = Model Toxics Control Act Method B.
 ng/kg = nanograms per kilogram.
 ROW = right-of-way.
 TEQ = toxicity equivalent.

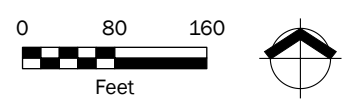
Data Source
 Aerial photograph obtained from the U.S. Department of Agriculture; parcels obtained from Clark County (2024).

- Legend**
- ROW Dioxin TEQ Below MTCA B CUL (< 13 ng/kg)
 - ROW Dioxin TEQ Above MTCA B CUL (> 13 ng/kg)
 - Off-Property Portion Site
 - Parcel
 - Railroad

Figure 3-3
ROW Surface Soil
Sample Results
 Former Pacific Wood Treating Site
 Ridgefield, WA



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Tables



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**Table 3-1
Cleanup Summary
Former PWT Site
Ridgefield, Washington**



Property	Adjacent ROW	Sample Name	Dioxin/Furan TEQ (ng/kg)	Remediation Depth (ft bgs)	Cleanup Phase
AOI-043	X	ISM-AOI043-0.5	16.1	2.0	Phase 1 (2025)
		AOI043-1.0-1.5	53.4		
		AOI043-1.5-2.0	30.2		
		AOI043-2.0-2.5	4.41		
		AOI043-2.5-3.0	0.562		
AOI-046	X	ISM-AOI046-0.5	20.3	1.0	Phase 1 (2025)
		AOI046-1.0-1.5	1.64		
AOI-056	X	ISM-AOI056-0.5	22.4	1.0	Phase 1 (2025)
		AOI056-1.0-1.5	3.28		
AOI-078	X	ISM-AOI078-0.5	21.1	1.5	Phase 1 (2025)
		AOI079-1.0-1.5	23.0		
		AOI079-1.5-2.0	5.16		
AOI-079	X	ISM-AOI079-0.5	40.8	1.5	Phase 1 (2025)
		AOI079-1.0-1.5	23.0		
		AOI079-1.5-2.0	5.16		
AOI-080	X	ISM-AOI080-0.5	31.7	1.5	Phase 1 (2025)
		AOI089-1.0-1.5	19.2		
		AOI089-1.5-2.0	1.44		
AOI-081	X	ISM-AOI081-0.5	16.4	1.0	Phase 1 (2025)
		AOI081-1.0-1.5	2.00		
AOI-083	X	ISM-AOI083-0.5	19.3	1.5	Phase 1 (2025)
		AOI083-1.0-1.5	14.1		
		AOI083-1.5-2.0	4.09		
AOI-087	X	ISM-AOI087-0.5	14.1	1.0	Phase 1 (2025)
		AOI087-1.0-1.5	10.4		
AOI-089	X	ISM-AOI089-0.5	20.4	1.0	Phase 1 (2025)
		AOI089-1.0-1.5	19.2		
		AOI089-1.5-2.0	1.44		
AOI-057	X	ISM-AOI057-0.5	20.8	1.0	Phase 2
		AOI057-1.0-1.5	1.34		
AOI-059	X	ISM-AOI059-0.5	46.3	1.0	Phase 2
		AOI057-1.0-1.5	1.34		
AOI-061	X	ISM-AOI061-0.5	22.2	1.0	Phase 2
		AOI061-1.0-1.5	6.99		
AOI-066	X	ISM-AOI066-0.5	17.0 to 44.7 (triplicate)	1.0	Phase 2
		AOI066-1.0-1.5	2.99		
AOI-082	X	ISM-AOI082-0.5	15.9	1.5	Phase 2
		AOI083-1.0-1.5	14.1		
		AOI083-1.5-2.0	4.09		
Additional ROWs		Multiple	Multiple	1.5*	Phase 2

NOTES:

Bold values exceed the cleanup level of 13 ng/kg

* Anticipated maximum depth to be further refined during additional pre-design activities.

bgs = below ground surface.

ft = feet.

Multiple = multiple samples and results provided in Table 3-3

PWT = Pacific Wood Treating Co.

TEQ = toxicity equivalent

X = adjacent ROW will be cleanup up as part of property cleanup

**Table 3-2
Yard Soil Results
Former PWT Site
Ridgefield, Washington**



Location	Sample Name	Collection Date	Collection Depth (feet bgs)	Sample Type	Area	Dioxin TEQ ^{(a)(1)(2)} (ng/kg)	1,2,3,4,6,7,8-HpCDD (ng/kg)	1,2,3,4,6,7,8-HpCDF (ng/kg)	1,2,3,4,7,8,9-HpCDF (ng/kg)	1,2,3,4,7,8-HxCDD (ng/kg)	1,2,3,4,7,8-HxCDF (ng/kg)	1,2,3,6,7,8-HxCDD (ng/kg)	1,2,3,6,7,8-HxCDF (ng/kg)	1,2,3,7,8,9-HxCDD (ng/kg)
Property 001	COMP-AOI001-0.5	11/20/2015	0-0.5	Composite	Phase 1 OPP	52.7	992	241	16.3	25.5	29.4	110	15.1 U	63.7
Property 002	ISM-AOI002-0.5	11/20/2015	0-0.5	ISM	Phase 1 OPP	15.1	322	157	3.98	4.89	9.82	20.2	4.64	12.6
Property 002	SBS-AOI002-1.5	03/22/2016	1.0-1.5	Discrete	Phase 1 OPP	5.41	159	19	1.27 J	2.2 J	2.63 J	7.23	1.38 J	5.91
Property 003	ISM-AOI003-0.5	02/09/2016	0-0.5	ISM	Phase 1 OPP	15.4	334	48.4	2.73	4.83	6.75	16.1	3.36	13
Property 004	COMP-AOI004-0.5	07/28/2015	0-0.5	Composite	Phase 1 OPP	13.0	320	42.1	2.63 J	4.65 J	5.98	20.3	2.81 J	12.4
Property 004	ISM-AOI004-0.5	07/12/2017	0-0.5	ISM	Phase 1 OPP	18.6	456	57.3	4	6.68	8.7	27.5	4.34 J	16.2
Property 005	ISM-AOI005-0.5	04/16/2015	0-0.5	ISM	Phase 1 OPP	68.8	1,810	249	15.3	18.1	44.4	94.6	22	55.5
Property 005	SBS-AOI005-1.0	04/16/2015	0.5-1.0	Discrete	Phase 1 OPP	60.7	1,900	288	17.6	17.1	48.3	93.5	21.4	51
Property 005	SBS-AOI005-1.0-DUP	04/16/2015	0.5-1.0	Discrete Dup	Phase 1 OPP	69.8	2,180	316	19.5	20.3	56	104	25.5	60.4
Property 006	ISM-AOI006-0.5	04/16/2015	0-0.5	ISM	Phase 1 OPP	39.8	930	123	6.94	10	18.1	46.9	8.23	29.1
Property 006	SBS-AOI006-1.0	04/16/2015	0.5-1.0	Discrete	Phase 1 OPP	23.6	572	74.6	4.32	5.03	12.8	26.6	5.29	14.1
Property 007	ISM-AOI007-0.5	04/16/2015	0-0.5	ISM	Phase 1 OPP	53.1	1,650	246	15.2	11.7	58.8	81.8	22.3	35.9
Property 008	ISM-AOI008-0.5	05/21/2015	0-0.5	ISM	Phase 1 OPP	11.4	288	46.8	2.76	3.19	4.07	12.7	2.15	8.79
Property 009	ISM-AOI009-0.5	11/20/2015	0-0.5	ISM	Phase 1 OPP	5.88	124	28.8	2.33	1.55	6.79	5.35	1.54	3.75
Property 010	ISM-AOI010-0.5	12/02/2015	0-0.5	ISM	Phase 1 OPP	4.12	142	18.1	1.03	0.974	1.9	4.38	0.694	2.69
Property 011	ISM-AOI011-0.5	04/16/2015	0-0.5	ISM	Phase 1 OPP	10.7	341	71.4	4.05	3.17	4.95	15.7	3.21	9.88
Property 012	ISM-AOI012-0.5	04/23/2015	0-0.5	ISM	Phase 1 OPP	18.4	542	101	5.4	6.27	12.6	24.6	7.46	15.1
Property 013	ISM-AOI013-0.5-B	04/16/2015	0-0.5	ISM	Phase 1 OPP	47.0	1,450	199	11.4	13.8	31.7	72	14.9	38.9
Property 013	ISM-AOI013-0.5-F	04/16/2015	0-0.5	ISM	Phase 1 OPP	106	3,560	500	29.8	28.2	91.6	159	37.5	66.4
Property 014	ISM-AOI014-0.5	04/23/2015	0-0.5	ISM	Phase 1 OPP	40.0	1,230	205 UJ	10.7	14.8	32.2	58	15.7	31.6
Property 015	ISM-AOI015-0.5	04/23/2015	0-0.5	ISM	Phase 1 OPP	183	4,080	584	26.3	80	74	285	83.7	191
Property 016	ISM-AOI016-0.5	05/07/2015	0-0.5	ISM	Phase 1 OPP	34.4	972	142	8.19	13.1	24	46.7	11.8	30.5
Property 017	ISM-AOI017-0.5-A	04/23/2015	0-0.5	ISM Triplicate	Phase 1 OPP	45.2	1,180	214	13.6	18.6	22.9	63.8	14.4	40
Property 017	ISM-AOI017-0.5-B	04/23/2015	0-0.5	ISM Triplicate	Phase 1 OPP	30.5	836	139	7.28	11.3	16.6	41.3	9.41	23.3
Property 017	ISM-AOI017-0.5-C	04/23/2015	0-0.5	ISM Triplicate	Phase 1 OPP	42.6	1,100	187	10.1	15.2	22.5	54.9	12.5	36.5
Property 017	SBS-AOI017-1.0	04/23/2015	0.5-1.0	Discrete	Phase 1 OPP	10.3	175	25.8	3.43	3.69	5.52	10.4	3.66	6.93
Property 018	ISM-AOI018-0.5-B-A	04/16/2015	0-0.5	ISM Triplicate	Phase 1 OPP	14.0	379	96.1	3.62	4.4	8.65	20.2	4.57	14.1
Property 018	ISM-AOI018-0.5-B-B	04/16/2015	0-0.5	ISM Triplicate	Phase 1 OPP	13.7	444	73.2	3.39	4.62	7.66 U	21.4	3.98	14.8 U
Property 018	ISM-AOI018-0.5-B-C	04/16/2015	0-0.5	ISM Triplicate	Phase 1 OPP	12.1	390	66.4	2.96	4.32	6.73 U	20.1	3.47	13 U
Property 018	ISM-AOI018-0.5-F	04/16/2015	0-0.5	ISM	Phase 1 OPP	18.3	553	78.6	4.04	6.43	9.91	27.8	5.2	17.1
Property 018	SBS-AOI018-1.0	04/16/2015	0.5-1.0	Discrete	Phase 1 OPP	1.85	54.9	9.37	0.466 J	0.609 J	1.16 U	2.74	0.607 J	2.03 U
Property 019	ISM-AOI019-0.5	06/22/2015	0-0.5	ISM	Phase 1 OPP	22.2	529	81.3	4.46	5.92	17.2	30.1	6.87	16.9
Property 019	SBS-AOI019-1.5	03/25/2016	1.0-1.5	Discrete	Phase 1 OPP	22.7	800	94.5	6.5	7.57	16.1	31.4	7.36	19.7
Property 020B	ISM-AOI020B-0.5	04/30/2015	0-0.5	ISM	Phase 1 OPP	25.6	734	134	5.95	8.4	16.7	33.2	8.46	24.8
Property 020B	SBS-AOI020B-1.0	04/30/2015	0-0.5	Discrete	Phase 1 OPP	4.17	119	23.3	0.907	1.12	2.41	4.93	1.23	4.65
Property 021	ISM-AOI021-0.5	04/30/2015	0-0.5	ISM	Phase 1 OPP	3.44	115	17.6	0.856 J	1.06	1.49	4	0.774 J	3.74
Property 022	ISM-AOI022-0.5	12/02/2015	0-0.5	ISM	Phase 1 OPP	8.65	252	34.4	2.12	2.33	4.94	12.4	2.2	6.39
Property 023	ISM-AOI023-0.5	06/15/2016	0-0.5	ISM	Phase 1 OPP	18.6	569	83.5	5.63	6.27	9.57	26.8	4.79	18.4
Property 024	ISM-AOI024-0.5	04/30/2015	0-0.5	ISM	Phase 1 OPP	15.1	397	81.4	4.04	4.18	8.03	16.7	7.22	13.7
Property 025	ISM-AOI025-0.5	04/30/2015	0-0.5	ISM	Phase 1 OPP	17.4	454	80.6	3.96	5.87	8.34	23.3	5.35	20.7

**Table 3-2
Yard Soil Results
Former PWT Site
Ridgefield, Washington**



Location	Sample Name	Collection Date	Collection Depth (feet bgs)	Sample Type	Area	Dioxin TEQ ^{(a)(1)(2)} (ng/kg)	1,2,3,4,6,7,8-HpCDD (ng/kg)	1,2,3,4,6,7,8-HpCDF (ng/kg)	1,2,3,4,7,8,9-HpCDF (ng/kg)	1,2,3,4,7,8-HxCDD (ng/kg)	1,2,3,4,7,8-HxCDF (ng/kg)	1,2,3,6,7,8-HxCDD (ng/kg)	1,2,3,6,7,8-HxCDF (ng/kg)	1,2,3,7,8,9-HxCDD (ng/kg)
Property 026	ISM-AOI026-0.5	09/21/2015	0-0.5	ISM	Phase 1 OPP	9.22	273	37.1	2.09	2.66	4.46	14.2	2.24	7.29
Property 027	ISM-AOI027-0.5	04/30/2015	0-0.5	ISM	Phase 1 OPP	10.6	309	49.1	2.48	3.4	5.4	13.8	2.6	11.8
Property 028A	ISM-AOI028A-0.5	12/02/2015	0-0.5	ISM	Phase 1 OPP	7.91	227	31.8	1.86	2.72	3.75	10.9	1.82	7.26
Property 028B	ISM-AOI028B-0.5	12/02/2015	0-0.5	ISM	Phase 1 OPP	15.9	424	89.4	4.22	5.24	8.1	24.6	4.48	13.6
Property 028B	SBS-AOI028B-1.5	03/22/2016	1.0-1.5	Discrete	Phase 1 OPP	14.0	479	54.7	3.77 J	4.86 J	9.12	19.3	4.06 J	12.4
Property 029A	ISM-AOI029A-0.5	04/30/2015	0-0.5	ISM	Phase 1 OPP	17.1	475	73	4.09	5.21	8.26	23	4	23.1
Property 029B	ISM-AOI029B-0.5	04/23/2015	0-0.5	ISM	Phase 1 OPP	27.7	763	130	6.97	10.5	13.7	38.5	7.73	23.8
Property 030	ISM-AOI030-0.5	04/30/2015	0-0.5	ISM	Phase 1 OPP	9.49	299	49	2.21	3.66	5.19	12.5	2.41	9.36
Property 030	ISM-AOI030-0.5	05/21/2015	0-0.5	ISM Dup	Phase 1 OPP	11.4	337	45.1	2.45	4.41	5.3	15.3	2.47	12.3
Property 031	ISM-AOI031-0.5	04/16/2015	0-0.5	ISM	Phase 1 OPP	11.9	397	65.9	3.4	4.15	6.15 U	18.8	3.24	11.8 U
Property 032	ISM-AOI032-0.5	04/23/2015	0-0.5	ISM	Phase 1 OPP	16.4	390	80.2	3.88	5.72	9.61	19.6	5.7	13.1
Property 032	SBS-AOI032-1.0	04/23/2015	0.5-1.0	Discrete	Phase 1 OPP	5.24	169	36.9	1.61	2	1.77	6.3	1.23	5.4
Property 034	ISM-AOI034-0.5	12/02/2015	0-0.5	ISM	Phase 1 OPP	9.68	215	40.5	2.36	2.67	7.17	10.6	3.01	7.63
Property 035	ISM-AOI035-0.5	12/23/2015	0-0.5	ISM	Phase 1 OPP	48.4	430	342	19	8.75	81.1	25.9	37	26.1
Property 036	ISM-AOI036-0.5	04/23/2015	0-0.5	ISM	Phase 1 OPP	29.4	563	122	6.37	8.11	13.8	28.2	7.03	19
Property 037	ISM-AOI037-0.5	11/20/2015	0-0.5	ISM	Phase 1 OPP	17.7	417	75.7	4.69	4.54	11.5	20.6	4.34	12.1
Property 037	SBS-AOI037-1.5	03/22/2016	1.0-1.5	Discrete	Phase 1 OPP	0.730	19.3	2.4 J	0.311 J	0.364 J	0.528 J	0.963 J	0.272 J	0.906 J
Property 038	ISM-AOI038-0.5	05/29/2015	0-0.5	ISM	Phase 1 OPP	31.3	747	129	6.61	14.1	13.1	37.5	7.06	37.7
Property 039	ISM-AOI039-0.5	05/29/2015	0-0.5	ISM	Phase 1 OPP	18.3	428	94.7	6.6	4.77	17.4	19	4.85	12.1
Property 041A	ISM-AOI041A-0.5	05/04/2016	0-0.5	ISM	Phase 2 OPP	11.7	415	49.3	3.03 U	4.04	8.08	17.6	3.64	11
Property 041B	ISM-AOI041B-0.5	05/04/2016	0-0.5	ISM	Phase 2 OPP	192	5,510	1,010	57	40.1	248	284	102	111
Property 043	ISM-AOI043-0.5	03/08/2017	0-0.5	ISM	Phase 2 OPP	16.1	360	52.5	3.36	3.67	7.06	17.6	5.09	10.4
Property 043	AOI-043-1.0-1.5	12/06/2023	1.0-1.5	Discrete	Phase 2 OPP	53.4	984 J	131 J	12.0 J	14.1 J	22.9 J	66.5 J	16.1 J	34.0 J
Property 043	AOI-043-1.5-2.0	12/06/2023	1.5-2.0	Discrete	Phase 2 OPP	30.2	576 J	81.6 J	5.64 J	9.79 J	14.9 J	36.4 J	9.62 J	18.7 J
Property 043	AOI043-2.0-2.5	03/13/2024	2.0-2.5	Discrete	Phase 3 OPP	4.41	67.5 J	8.08 J	0.733 UJK	1.51 UJ	2.77 J	4.66 J	1.99 J	3.33 J
Property 043	AOI043-2.5-3.0	03/13/2024	2.5-3.0	Discrete	Phase 3 OPP	0.562	6.29	0.935 J	0.274 U	0.33 U	0.347 J	0.629 J	0.200 UJK	0.421 J
Property 044	ISM-AOI044-0.5	03/08/2017	0-0.5	ISM	Phase 2 OPP	6.92	184	29.2	1.6 J	1.79 J	3.87	7.51	1.87 J	4.23 U
Property 045	ISM-AOI045-0.5	08/07/2017	0-0.5	ISM	Phase 2 OPP	5.04	139	20.9	1.16 J	1.57 J	3.18	6.24	1.46 J	3.06
Property 046	ISM-AOI046-0.5	06/14/2017	0-0.5	ISM	Phase 2 OPP	20.3	557	82.6	5.33	5.15	19.8	25.3	7.15	12.2
Property 046	AOI-046-1.0-1.5	12/06/2023	1.0-1.5	Discrete	Phase 2 OPP	1.64	44.5	6.73	0.445 J	0.379 U	1.56 J	2.18 J	0.63 J	0.909 J
Property 048	ISM-AOI048-0.5	08/07/2017	0-0.5	ISM	Phase 2 OPP	9.25	277	56.9	3.35	2.09 J	5.66	9.32	2.38 J	4.29
Property 049	ISM-AOI049-0.5	03/08/2017	0-0.5	ISM	Phase 2 OPP	3.40	99.5	17.7	1.01 J	0.809 UJ	1.58 J	3.47	0.904 J	1.97
Property 051	ISM-AOI051-0.5	03/08/2017	0-0.5	ISM	Phase 2 OPP	5.08	102	25.3	1.41 J	1.19 J	3.99	3.5	1.48 UJ	2.45
Property 052	ISM-AOI052-0.5	03/08/2017	0-0.5	ISM	Phase 2 OPP	6.85	170	30	1.36 J	1.39 J	1.99 J	6.59	1.56 J	3.26
Property 054	ISM-AOI054-0.5	03/08/2017	0-0.5	ISM	Phase 2 OPP	2.48	63.7	11.3	0.605 U	0.75 UJ	1.16 UJ	2.15 J	0.684 UJ	1.4 J
Property 056	ISM-AOI056-0.5	03/08/2017	0-0.5	ISM	Phase 2 OPP	22.4	740	106	5.68	6.35	14.9	26.5	6.84	12 U
Property 056	AOI-056-1.0-1.5	12/06/2023	1.0-1.5	Discrete	Phase 2 OPP	3.28	78.8	10.9	0.808 J	1.21 J	2.04 J	4.05	1.14 J	2.21 J
Property 057	ISM-AOI057-0.5	06/14/2017	0-0.5	ISM	Phase 2 OPP	20.8	537	80	4.6	4.72	13.4	23.6	6.8	10.9
Property 057	AOI057-1.0-1.5	12/15/2023	1.0-1.5	Discrete	Phase 2 OPP	1.34	41.9 J	5.01 J	0.56 UJ	0.654 UJ	0.768 UJK	1.95 J	0.402 J	0.733 UJK
Property 059	ISM-AOI059-0.5	08/07/2017	0-0.5	ISM	Phase 2 OPP	46.3	1,750	244	14.2	11	19.7	67.8	11.5	24.1

**Table 3-2
Yard Soil Results
Former PWT Site
Ridgefield, Washington**



Location	Sample Name	Collection Date	Collection Depth (feet bgs)	Sample Type	Area	Dioxin TEQ ^{(a)(1)(2)} (ng/kg)	1,2,3,4,6,7,8-HpCDD (ng/kg)	1,2,3,4,6,7,8-HpCDF (ng/kg)	1,2,3,4,7,8,9-HpCDF (ng/kg)	1,2,3,4,7,8-HxCDD (ng/kg)	1,2,3,4,7,8-HxCDF (ng/kg)	1,2,3,6,7,8-HxCDD (ng/kg)	1,2,3,6,7,8-HxCDF (ng/kg)	1,2,3,7,8,9-HxCDD (ng/kg)
Property 061	ISM-AOI061-0.5	03/08/2017	0-0.5	ISM	Phase 2 OPP	22.2	835	104	7.09	4.09	9.75	22.3	4.81	8.28
Property 061	AOI-061-1.0-1.5	12/06/2023	1.0-1.5	Discrete	Phase 2 OPP	6.99	220	31.4	2.05 J	1.51 J	3.33 J	13.7	2.21 J	3.09
Property 062	ISM-AOI062-0.5	06/14/2017	0-0.5	ISM	Phase 2 OPP	13.6	366	59.6	3.99	3.89	9.07	16.9	4.01	8.92
Property 063	ISM-AOI063-0.5-1	06/14/2017	0-0.5	ISM Triplicate	Phase 2 OPP	4.27	103 J	19 J	1.14 J	1.07 J	2.39 J	4.52 J	1.2 J	2.32 J
Property 063	ISM-AOI063-0.5-2	06/14/2017	0-0.5	ISM Triplicate	Phase 2 OPP	11.1	295 J	61.3 J	3.87 J	2.79 J	7.4 J	12.7 J	3.85 J	6.06 J
Property 063	ISM-AOI063-0.5-3	06/14/2017	0-0.5	ISM Triplicate	Phase 2 OPP	7.71	145 J	32.8 J	2.11 J	1.83 J	5.07 J	7.04 J	3.24 J	3.87 J
Property 064	ISM-AOI064-0.5	03/08/2017	0-0.5	ISM	Phase 2 OPP	11.2	187	35.1	2.47	1.73 UJ	4.56	6.74 U	2.7	2.98 U
Property 066	ISM-AOI066-0.5-1	03/09/2017	0-0.5	ISM Triplicate	Phase 2 OPP	17.0	595	80.1	5.5	4.97	7.5	17.4	6.39	12
Property 066	ISM-AOI066-0.5-2	03/09/2017	0-0.5	ISM Triplicate	Phase 2 OPP	44.7	1,600	243	15.8	13.8	23.4	44.4	11.4	30.6
Property 066	ISM-AOI066-0.5-3	03/09/2017	0-0.5	ISM Triplicate	Phase 2 OPP	20.7	777	108	7	6.51	8.98	21.1	6.37	14.1
Property 066	AOI-066-1.0-1.5	12/06/2023	1.0-1.5	Discrete	Phase 2 OPP	2.99	73.1	11.2	1.08 J	1.21 J	1.12 J	3.36	1.21 J	2.51
Property 067	ISM-AOI067-0.5	03/09/2017	0-0.5	ISM	Phase 2 OPP	2.07	63.6	8.88	0.533 J	0.581 J	1.14 J	2.51	0.613 J	1.46 J
Property 068	ISM-AOI068-0.5	05/23/2017	0-0.5	ISM	Phase 2 OPP	9.29	277	38.2	3.05	2.53	5.28	11.3	2.54	6.39
Property 071	ISM-AOI071-0.5	06/14/2017	0-0.5	ISM	Phase 2 OPP	11.2	320	45.2	2.65	2.78	8.31	15.1	3.6	6.55
Property 072	ISM-AOI072-0.5	03/09/2017	0-0.5	ISM	Phase 2 OPP	9.32	349	49.9	4.19	2.52	3.31	12.6	2.2 J	6.4
Property 073	ISM-AOI073-0.5	05/23/2017	0-0.5	ISM	Phase 2 OPP	12.5	361	48.2	2.57	3.15	8.19	15.6	3.84	7.61
Property 075	ISM-AOI075-0.5	05/23/2017	0-0.5	ISM	Phase 2 OPP	11.6	322	44.2	2.38 J	2.95 U	6.07	14.5	3.06	7.85
Property 076	ISM-AOI076-0.5	03/09/2017	0-0.5	ISM	Phase 2 OPP	9.53	256	42.9	2.3	2.33	5.5	10.3	3.2	5.81
Property 077	ISM-AOI077-0.5	03/09/2017	0-0.5	ISM	Phase 2 OPP	11.6	316	59.5	2.93	2.71	7.83	12.3	3.97	6.26
Property 078	ISM-AOI078-0.5	08/18/2017	0-0.5	ISM	Phase 2 OPP	21.1	552	73.9	3.91	7.02	8.27	29.5	5.65	17.7
Property 079	ISM-AOI079-0.5	08/13/2019	0-0.5	ISM	Phase 3 OPP	40.8	827	111	6.4	12.6	13.6	45.5	10.8	27.8
Property 079	AOI079-1.0-1.5	12/15/2023	1.0-1.5	Discrete	Phase 3 OPP	23.0	482 J	58.1 J	3.38 J	8.53 J	8.89 J	34.3 J	5.18 J	18.4 J
Property 079	AOI-079-1.5-2.0	12/15/2023	1.5-2.0	Discrete	Phase 3 OPP	5.16	113 J	13.9 J	0.739 J	2.32 J	2.02 J	8.67 J	1.32 J	5.31 J
Property 080	ISM-AOI080-0.5	08/13/2019	0-0.5	ISM	Phase 3 OPP	31.7	538	117	8.26	7.85	37.9	27.5	11.6	15.4
Property 081	ISM-AOI081-0.5	08/13/2019	0-0.5	ISM	Phase 3 OPP	16.4	399	49.8	2.7 J	5.29	5.58	23.9	3.43 J	13.4
Property 081	AOI081-1.0-1.5	12/15/2023	1.0-1.5	Discrete	Phase 3 OPP	2.00	43.7 J	5.61 J	0.513 UJ	0.812 UJK	0.717 J	3.25 J	0.419 UJK	2.13 J
Property 082	ISM-AOI082-0.5	08/13/2019	0-0.5	ISM	Phase 3 OPP	15.9	329	53.5	3.6 J	3.82 J	8.09	15.5	5.28	8.43
Property 083	ISM-AOI083-0.5	08/13/2019	0-0.5	ISM	Phase 3 OPP	19.3	449	70.5	4.35 J	4.81 J	13.9	22.3	6.32	10.1
Property 083	AOI-083-1.0-1.5	12/06/2023	1.0-1.5	Discrete	Phase 3 OPP	14.1	244	49.2	2.62 J	3.74	6.18 J	14.7	3.86	7.85
Property 083	AOI-083-1.5-2.0	12/06/2023	1.5-2.0	Discrete	Phase 3 OPP	4.09	83.7 J	15.5 J	0.567 J	1.27 J	2.18 J	4.87 J	1.15 J	2.45 J
Property 084	ISM-AOI084-0.5	08/13/2019	0-0.5	ISM	Phase 3 OPP	5.41	157	24.8	1.24 J	1.59 J	1.86 J	7.46	1.27 J	3.84 J
Property 085	ISM-AOI085-0.5	08/13/2019	0-0.5	ISM	Phase 3 OPP	5.42	140	18.8	1.17 J	1.8 J	1.94 J	7.26	1.16 J	4.17 J
Property 086	ISM-AOI086-0.5	08/13/2019	0-0.5	ISM	Phase 3 OPP	11.1	301	37	2.16 J	3.25 J	3.84 J	16.3	2.33 J	7.85
Property 087	ISM-AOI087-0.5	01/29/2020	0-0.5	ISM	Phase 3 OPP	14.1	311	50.8	2.53 J	4.48 J	5.02	15.9	3.67 J	9.36
Property 087	AOI-087-1.0-1.5	12/06/2023	1.0-1.5	Discrete	Phase 3 OPP	10.4	203 J	28.0 J	7.40 UJ	6.83 UJ	4.01 UJK	17.1 J	3.83 UJ	11.0 J
Property 088	ISM-AOI088-0.5	02/17/2020	0-0.5	ISM	Phase 3 OPP	9.9	204 J	59 J	7.63 J	2.94 UJ	18.3 J	8.91 J	3.81 J	4.26 UJ
Property 089	ISM-AOI089-0.5	01/29/2020	0-0.5	ISM	Phase 3 OPP	20.4	428	86.3	6.63	6.9	14.2	23.9	4.97	13.6
Property 089	AOI-089-1.0-1.5	12/06/2023	1.0-1.5	Discrete	Phase 3 OPP	19.2	597	46.8	2.41 J	6.74	5.68 J	35.2	3.54	13.5
Property 089	AOI-089-1.5-2.0	12/06/2023	1.5-2.0	Discrete	Phase 3 OPP	1.44	44.5 J	4.21 J	0.476 UJ	0.465 UJ	0.572 J	2.67 J	0.221 UJK	1.24 J

**Table 3-2
Yard Soil Results
Former PWT Site
Ridgefield, Washington**



Location	Sample Name	Collection Date	Collection Depth (feet bgs)	Sample Type	1,2,3,7,8,9-HxCDF (ng/kg)	1,2,3,7,8-PeCDD (ng/kg)	1,2,3,7,8-PeCDF (ng/kg)	2,3,4,6,7,8-HxCDF (ng/kg)	2,3,4,7,8-PeCDF (ng/kg)	2,3,7,8-TCDD (ng/kg)	2,3,7,8-TCDF (ng/kg)	OCDD (ng/kg)	OCDF (ng/kg)	Total HpCDDs (ng/kg)
Property 001	COMP-AOI001-0.5	11/20/2015	0-0.5	Composite	0.615	11.8	4.53	9.61	5.48	1.09	1.43	2,130 J	349	1,830
Property 002	ISM-AOI002-0.5	11/20/2015	0-0.5	ISM	0.236 J	2.24	1.29	4.68	3.37	0.549	0.703	2,210	108	541
Property 002	SBS-AOI002-1.5	03/22/2016	1.0-1.5	Discrete	0.146 UJ	0.815 J	0.621 UJ	1.06 J	0.774 UJ	0.296 J	0.841 U	926	25.8	278
Property 003	ISM-AOI003-0.5	02/09/2016	0-0.5	ISM	0.135 J	2	0.847	2.65	1.64	3.71	1.33	1,760	66.3	569
Property 004	COMP-AOI004-0.5	07/28/2015	0-0.5	Composite	0.176 J	2.49 J	1.28 J	2.35 J	1.46 J	0.856 J	0.74 J	1,860	68.6	537
Property 004	ISM-AOI004-0.5	07/12/2017	0-0.5	ISM	0.618 U	4.13 J	1.78 J	2.75 J	2.85 J	0.762 J	1.67	2,740	112	767
Property 005	ISM-AOI005-0.5	04/16/2015	0-0.5	ISM	0.854 J	8.29	5.7	14	9.1	8.64	2.28	9,800	265	3,020
Property 005	SBS-AOI005-1.0	04/16/2015	0.5-1.0	Discrete	0.9 J	6.98	5.77	13.6	8.31	0.845	1.89	10,800	354	3,150
Property 005	SBS-AOI005-1.0-DUP	04/16/2015	0.5-1.0	Discrete Dup	1.14	7.94	6.96	15.3	10.8	1.12	2.65	11,800	372	3,770
Property 006	ISM-AOI006-0.5	04/16/2015	0-0.5	ISM	0.487 J	4	2.36	5.11	3.14	10.8	0.9 U	4,960	148	1,520
Property 006	SBS-AOI006-1.0	04/16/2015	0.5-1.0	Discrete	0.329 J	1.98	1.51	3.36	2.21	6.74	0.68 J	2,890	79.1	936
Property 007	ISM-AOI007-0.5	04/16/2015	0-0.5	ISM	1.12	4.25	6.39	12	10.2	0.317	1.98	11,800	207	2,770
Property 008	ISM-AOI008-0.5	05/21/2015	0-0.5	ISM	0.276 J	1.92	0.829 J	1.46	0.999 J	1.87	0.95 J	1,720	90.2	468
Property 009	ISM-AOI009-0.5	11/20/2015	0-0.5	ISM	0.118 J	0.627 J	0.414 J	1.05	0.814	1.12	0.404 J	841	62.2	216
Property 010	ISM-AOI010-0.5	12/02/2015	0-0.5	ISM	0.0691 J	0.396 J	0.236 J	0.67	0.371 J	0.359	0.636 J	1,410	42.1	284
Property 011	ISM-AOI011-0.5	04/16/2015	0-0.5	ISM	0.19 U	1.45	0.83 J	2.24	1.04	0.142 J	0.5 J	1,810	141	549
Property 012	ISM-AOI012-0.5	04/23/2015	0-0.5	ISM	0.27 J	2.45	1.88	4.93	2.57	0.471 UJ	2.03	3,500	122	906
Property 013	ISM-AOI013-0.5-B	04/16/2015	0-0.5	ISM	0.833 J	6.25	5	9.39	6.27	0.964	2.67	8,790	288	2,480
Property 013	ISM-AOI013-0.5-F	04/16/2015	0-0.5	ISM	1.8	8.81	11	23.4	15.7	3.79	3.08	20,400	557	6,120
Property 014	ISM-AOI014-0.5	04/23/2015	0-0.5	ISM	0.608 J	5.4	4.33	9.89	5.93	0.589	0.76 U	7,750	219	2,180
Property 015	ISM-AOI015-0.5	04/23/2015	0-0.5	ISM	1	45.5	14.6	45.9	14.1	3.37	4.92	19,400	375	7,470
Property 016	ISM-AOI016-0.5	05/07/2015	0-0.5	ISM	0.462 J	5.87	3.56	7.48	5.06	0.485 J	1.61	5,390	166	1,700
Property 017	ISM-AOI017-0.5-A	04/23/2015	0-0.5	ISM Triplicate	0.47 J	7.15	3.52	8.15	4.32	3.37	1.48	7,020	290	1,920
Property 017	ISM-AOI017-0.5-B	04/23/2015	0-0.5	ISM Triplicate	0.273 UJ	4.39	2.4	6.01	3.14	2.77	0.95 J	5,060	172	1,410
Property 017	ISM-AOI017-0.5-C	04/23/2015	0-0.5	ISM Triplicate	0.327 J	6.84	3.34	7.47	4.54	4.13	2.4 U	6,960	230	1,850
Property 017	SBS-AOI017-1.0	04/23/2015	0.5-1.0	Discrete	1.78	2.47	2.26	3.14	2.33	1.22	0.51 U	863	31	292
Property 018	ISM-AOI018-0.5-B-A	04/16/2015	0-0.5	ISM Triplicate	0.25 J	2.14	1.28	3.17	1.72	0.324	0.84 U	1,990	87.6	636
Property 018	ISM-AOI018-0.5-B-B	04/16/2015	0-0.5	ISM Triplicate	0.229 U	2.32	1.4	2.78	1.73	0.326	1 U	2,480	107	753
Property 018	ISM-AOI018-0.5-B-C	04/16/2015	0-0.5	ISM Triplicate	0.207 J	2.05	1.04	2.41	1.31	0.255	0.66 J	2,070	84.6	648
Property 018	ISM-AOI018-0.5-F	04/16/2015	0-0.5	ISM	0.323 J	2.8	1.45	3.48	2.02	0.461	0.84 J	2,940	97.1	933
Property 018	SBS-AOI018-1.0	04/16/2015	0.5-1.0	Discrete	0.107 U	0.319 J	0.293 J	0.44 J	0.3 J	0.109 U	0.668 U	290	9.09	92.6
Property 019	ISM-AOI019-0.5	06/22/2015	0-0.5	ISM	0.304 J	3.27	2.18	4.57	3.23	2.69	1.25	2,540	67.4	866
Property 019	SBS-AOI019-1.5	03/25/2016	1.0-1.5	Discrete	0.337 U	1.69 J	2.29 J	5.81	3.9 J	0.262 J	1.4 U	5,350	155	1,370
Property 020B	ISM-AOI020B-0.5	04/30/2015	0-0.5	ISM	0.268 J	3.26	2.1	5.52	2.98	1.54	1.34	3,800	187	1,240
Property 020B	SBS-AOI020B-1.0	04/30/2015	0-0.5	Discrete	0.056	0.496	0.377	0.92	0.554	0.272	0.32	745	33.8	173
Property 021	ISM-AOI021-0.5	04/30/2015	0-0.5	ISM	0.103 U	0.478 J	0.233 J	0.556 J	0.313 J	0.116 U	0.13 U	946	34.8	195
Property 022	ISM-AOI022-0.5	12/02/2015	0-0.5	ISM	0.101 J	1.01	0.726	1.55	0.956	0.895	0.863	1,510	63.7	437
Property 023	ISM-AOI023-0.5	06/15/2016	0-0.5	ISM	0.191 J	2.51	1.44	2.94	2.27	0.662	0.97 J	3,520	133	993
Property 024	ISM-AOI024-0.5	04/30/2015	0-0.5	ISM	0.208 J	2.09	1.53	7.04	3.21	0.501	1.93	2,600	138	680
Property 025	ISM-AOI025-0.5	04/30/2015	0-0.5	ISM	0.234 J	2.86	1.56	3.69	2.05	0.695	1.44	2,740	122	764

**Table 3-2
Yard Soil Results
Former PWT Site
Ridgefield, Washington**



Location	Sample Name	Collection Date	Collection Depth (feet bgs)	Sample Type	1,2,3,7,8,9-HxCDF (ng/kg)	1,2,3,7,8-PeCDD (ng/kg)	1,2,3,7,8-PeCDF (ng/kg)	2,3,4,6,7,8-HxCDF (ng/kg)	2,3,4,7,8-PeCDF (ng/kg)	2,3,7,8-TCDD (ng/kg)	2,3,7,8-TCDF (ng/kg)	OCDD (ng/kg)	OCDF (ng/kg)	Total HpCDDs (ng/kg)
Property 026	ISM-AOI026-0.5	09/21/2015	0-0.5	ISM	0.135 U	1.61	1.05	1.95	1.15	0.29 U	0.85 J	1,900	71.6	453
Property 027	ISM-AOI027-0.5	04/30/2015	0-0.5	ISM	0.137 J	1.58	0.763 J	2.2	1.03	0.488	0.64 J	2,050	73.9	523
Property 028A	ISM-AOI028A-0.5	12/02/2015	0-0.5	ISM	0.122 J	1.27	0.678 J	1.45	0.899 J	0.382	1.06	1,470	50.8	404
Property 028B	ISM-AOI028B-0.5	12/02/2015	0-0.5	ISM	0.247 J	2.32	1.44	3.76	2.13	0.859	1.25	2,190	168	744
Property 028B	SBS-AOI028B-1.5	03/22/2016	1.0-1.5	Discrete	0.339 UJ	1.22 J	1.43 J	3.42 J	2.36 J	0.266 J	0.71 J	3,050	99.3	862
Property 029A	ISM-AOI029A-0.5	04/30/2015	0-0.5	ISM	0.249 J	2.79	1.55	3.35	1.96	0.359	1.14	3,050	75.4	678
Property 029B	ISM-AOI029B-0.5	04/23/2015	0-0.5	ISM	0.322 J	5.24	2.48	5.96	3.48	0.713	0.79 U	5,080	208	1,390
Property 030	ISM-AOI030-0.5	04/30/2015	0-0.5	ISM	0.465 U	1.2	0.581 U	2.29	1	0.625 U	0.45 J	1,800	72.3	541
Property 030	ISM-AOI030-0.5	05/21/2015	0-0.5	ISM Dup	0.165 U	2.15	0.926 J	1.69	1.2	0.265 J	0.699 J	1,720	74.4	571
Property 031	ISM-AOI031-0.5	04/16/2015	0-0.5	ISM	0.168 U	1.95	0.983 J	2.23	1.39	0.248	1.27	2,170	176	661
Property 032	ISM-AOI032-0.5	04/23/2015	0-0.5	ISM	0.24 J	3.4	1.65	5.05	2.45	0.599	1.39	2,470	154	659
Property 032	SBS-AOI032-1.0	04/23/2015	0.5-1.0	Discrete	0.158 U	0.851 J	0.243 J	1.16	0.349 J	0.18 U	0.371 U	893	105	285
Property 034	ISM-AOI034-0.5	12/02/2015	0-0.5	ISM	0.13 J	1.58	1.04	2.94	1.71	1.02	1.25	1,330	62.6	393
Property 035	ISM-AOI035-0.5	12/23/2015	0-0.5	ISM	1.75	5.8	14.7	55.7	26.4	1.2	10.8	1,050	476	692
Property 036	ISM-AOI036-0.5	04/23/2015	0-0.5	ISM	0.263 J	4.45	2.15	6.01	3.4	7.33	2.24	3,560	250	951
Property 037	ISM-AOI037-0.5	11/20/2015	0-0.5	ISM	0.205 J	1.95	1.24	3.16	1.97	3.63	0.99	2,460	145	717
Property 037	SBS-AOI037-1.5	03/22/2016	1.0-1.5	Discrete	0.165 J	0.245 J	0.216 J	0.236 J	0.225 J	0.202 U	0.258 J	126	7.62 J	31.9
Property 038	ISM-AOI038-0.5	05/29/2015	0-0.5	ISM	0.283 U	6.94	1.86	4.97	2.67	1.81	1.51	3,960	282	1,280
Property 039	ISM-AOI039-0.5	05/29/2015	0-0.5	ISM	0.231 U	2.71	1.33	3.11	2.43	2.45	1.34	2,580	140	716
Property 041A	ISM-AOI041A-0.5	05/04/2016	0-0.5	ISM	0.285 U	1.61 U	1.2 U	2.59	2.06 U	0.353	0.6 U	2,530	74.9	734
Property 041B	ISM-AOI041B-0.5	05/04/2016	0-0.5	ISM	3.31	10.9	31.1	56	55.6	0.563	9.1	38,200	752	9,810
Property 043	ISM-AOI043-0.5	03/08/2017	0-0.5	ISM	2.19	3.15	1.35 UJ	7.46	8.23	0.469 U	0.971	2,110	51.3	614
Property 043	AOI-043-1.0-1.5	12/06/2023	1.0-1.5	Discrete	7.24 J	11.7 J	4.36 UJK	21.1 J	30.4 J	2.07 UJK	2.27 UJ	6,280 J	152 J	1,700 J
Property 043	AOI-043-1.5-2.0	12/06/2023	1.5-2.0	Discrete	1.45 J	6.33 J	3.05 J	5.93 J	17.3 J	0.998 J	1.72 J	3,640 J	75.3 J	1,020 J
Property 043	AOI043-2.0-2.5	03/13/2024	2.0-2.5	Discrete	0.947 J	0.954 UJK	0.678 J	2.17 J	3.88 J	0.385 UJ	0.545 UJ	335 J	8.03 J	117 J
Property 043	AOI043-2.5-3.0	03/13/2024	2.5-3.0	Discrete	0.392 U	0.246 U	0.133 U	0.247 U	0.562 UJK	0.131 U	0.121 U	29.3	1.05 J	12.0
Property 044	ISM-AOI044-0.5	03/08/2017	0-0.5	ISM	1.18 J	1.36 UJ	0.927 UJ	2.44	1.94 J	0.998	0.713 U	1,240	47.5	334
Property 045	ISM-AOI045-0.5	08/07/2017	0-0.5	ISM	0.816 J	0.849 UJ	0.668 UJ	2.05 J	1.82 J	0.483 U	0.756	962	27	243
Property 046	ISM-AOI046-0.5	06/14/2017	0-0.5	ISM	4.59	2.09 J	2.3 J	7.81	7.16	0.326 UJ	0.806	3,530	78.9	943
Property 046	AOI-046-1.0-1.5	12/06/2023	1.0-1.5	Discrete	0.245 UJK	0.339 U	0.325 J	0.651 J	0.850 UJK	0.128 U	0.209 J	353	5.07 J	75.8
Property 048	ISM-AOI048-0.5	08/07/2017	0-0.5	ISM	1.37 UJ	1.36 J	0.945 J	3.53	2.57	0.453 UJ	0.816	1,910	133	480
Property 049	ISM-AOI049-0.5	03/08/2017	0-0.5	ISM	0.446 J	0.505 J	0.46 UJ	1.08 J	0.894 J	0.193 J	0.383 U	784	26.8	191
Property 051	ISM-AOI051-0.5	03/08/2017	0-0.5	ISM	0.984 J	0.587 U	0.587 UJ	1.64 J	1.79 J	1.23	0.539 U	796	41.7	180
Property 052	ISM-AOI052-0.5	03/08/2017	0-0.5	ISM	0.608 J	0.905 J	0.585 UJ	2.19 J	1.78 J	1.21	0.599	1,160	55.8	299
Property 054	ISM-AOI054-0.5	03/08/2017	0-0.5	ISM	0.539 U	0.625 J	0.288 U	0.739 UJ	0.718 J	0.27 U	0.444 J	503	25.7	114
Property 056	ISM-AOI056-0.5	03/08/2017	0-0.5	ISM	3.44	3.16	1.92 J	8.57	5.51	0.472 U	0.934	4,640 J	108	1,280
Property 056	AOI-056-1.0-1.5	12/06/2023	1.0-1.5	Discrete	0.253 J	0.649 J	0.522 J	0.427 J	1.04 J	0.207 U	0.216 U	492	9.48 J	134
Property 057	ISM-AOI057-0.5	06/14/2017	0-0.5	ISM	3.57	2.25 J	2.32 J	9.01	9.57	0.946	1.43	3,650	101	919
Property 057	AOI057-1.0-1.5	12/15/2023	1.0-1.5	Discrete	0.702 UJ	0.467 UJK	0.270 UJK	0.330 UJK	0.184 UJK	0.138 UJ	0.174 UJ	411 J	9.67 J	71.9 J
Property 059	ISM-AOI059-0.5	08/07/2017	0-0.5	ISM	5.74	5.27	2.6	13.8	5.52	0.532 U	0.823	11,400 J	400	2,750 J

**Table 3-2
Yard Soil Results
Former PWT Site
Ridgefield, Washington**



Location	Sample Name	Collection Date	Collection Depth (feet bgs)	Sample Type	1,2,3,7,8,9-HxCDF (ng/kg)	1,2,3,7,8-PeCDD (ng/kg)	1,2,3,7,8-PeCDF (ng/kg)	2,3,4,6,7,8-HxCDF (ng/kg)	2,3,4,7,8-PeCDF (ng/kg)	2,3,7,8-TCDD (ng/kg)	2,3,7,8-TCDF (ng/kg)	OCDD (ng/kg)	OCDF (ng/kg)	Total HpCDDs (ng/kg)
Property 061	ISM-AOI061-0.5	03/08/2017	0-0.5	ISM	3.53	2.04 J	1.8 J	5.97	3.75	0.472 U	1.1 U	10,700 J	378	1,410
Property 061	AOI-061-1.0-1.5	12/06/2023	1.0-1.5	Discrete	0.822 UJK	0.84 J	0.814 J	2.4 J	1.6 J	0.192 U	0.153 U	1,130	27 J	344
Property 062	ISM-AOI062-0.5	06/14/2017	0-0.5	ISM	2.11 J	2.03 J	1.49 J	4.92	4.31	0.267 UJ	0.954 U	2,560	135	612
Property 063	ISM-AOI063-0.5-1	06/14/2017	0-0.5	ISM Triplicate	0.704 J	0.554 J	0.449 UJ	1.74 J	2.03 J	0.362 UJ	0.659 J	712 J	35.8 J	179 J
Property 063	ISM-AOI063-0.5-2	06/14/2017	0-0.5	ISM Triplicate	1.88 J	1.24 J	1.04 J	5.01 J	4.51 J	0.307 UJ	0.726 J	2,210 J	137 J	487 J
Property 063	ISM-AOI063-0.5-3	06/14/2017	0-0.5	ISM Triplicate	1.54 J	1.07 J	1.49 J	5.4 J	4.78 J	0.282 UJ	1.26 J	944 J	48.8 J	242 J
Property 064	ISM-AOI064-0.5	03/08/2017	0-0.5	ISM	1.5 J	1.01 J	0.813 UJ	4.92	6.74	3.42	0.595	1,450	72.7	325
Property 066	ISM-AOI066-0.5-1	03/09/2017	0-0.5	ISM Triplicate	1.83 J	2.16 J	2.15 J	6.05	2.75	0.28 J	0.834	3,880 J	118	947
Property 066	ISM-AOI066-0.5-2	03/09/2017	0-0.5	ISM Triplicate	6.01	5.59	4.24	11.3	5.84	0.536	1.31	12,500 J	339	2,540 J
Property 066	ISM-AOI066-0.5-3	03/09/2017	0-0.5	ISM Triplicate	2.32 J	2.67	1.8 J	6.33	2.54	0.263 UJ	0.531 U	5,200 J	167	1,220
Property 066	AOI-066-1.0-1.5	12/06/2023	1.0-1.5	Discrete	0.428 UJ	0.762 J	0.429 J	0.712 J	0.483 UJK	0.212 U	0.173 U	469	15.7 J	117
Property 067	ISM-AOI067-0.5	03/09/2017	0-0.5	ISM	0.379 J	0.325 UJ	0.376 UJ	0.832 J	0.693 J	0.111 UJ	0.216 UJ	473	12.3	111
Property 068	ISM-AOI068-0.5	05/23/2017	0-0.5	ISM	1.39 J	1.34 J	1.1 J	3.14	2.16 J	0.255 J	0.612 U	1,750	68.1	467
Property 071	ISM-AOI071-0.5	06/14/2017	0-0.5	ISM	2.06 J	1.29 J	1.43 J	4.61	3.61	0.245 UJ	0.854	2,060	47.1	532
Property 072	ISM-AOI072-0.5	03/09/2017	0-0.5	ISM	0.948 J	1.37 UJ	0.676 UJ	2.75	1.38 J	0.302 J	0.383 UJ	2,470	160	627
Property 073	ISM-AOI073-0.5	05/23/2017	0-0.5	ISM	2.16 J	1.4 J	1.36 J	4.58	3.56	0.625	0.917	2,240	49.8	616
Property 075	ISM-AOI075-0.5	05/23/2017	0-0.5	ISM	1.82 J	1.7 J	1.52 UJ	4.2	3.45	1.2 U	1.07	1,800	47.4	537
Property 076	ISM-AOI076-0.5	03/09/2017	0-0.5	ISM	1.26 J	1.6 J	1.62 J	3.67	3	0.311 UJ	1.35	1,520	60.6	439
Property 077	ISM-AOI077-0.5	03/09/2017	0-0.5	ISM	1.97 J	1.47 J	1.46 J	5.5	4.42	0.304 J	1	1,740	49.4	536
Property 078	ISM-AOI078-0.5	08/18/2017	0-0.5	ISM	2.6	4.08	2.46 J	6.73	4.51	0.768 U	2.94 U	3,140	88.2	921
Property 079	ISM-AOI079-0.5	08/13/2019	0-0.5	ISM	5.08	7.7	3.35 J	19	24.8	0.918 J	2.9	4,700 J	181	1,570
Property 079	AOI079-1.0-1.5	12/15/2023	1.0-1.5	Discrete	1.98 J	5.41 J	2.17 J	5.59 J	6.94 J	0.698 J	1.33 J	2,750 J	56.5 J	821 J
Property 079	AOI-079-1.5-2.0	12/15/2023	1.5-2.0	Discrete	0.339 UJK	1.35 J	0.619 J	0.79 J	0.696 UJK	0.200 UJK	0.532 J	640 J	14.6 J	200 J
Property 080	ISM-AOI080-0.5	08/13/2019	0-0.5	ISM	8.18	4.78 J	3.99 J	13	16.5	1.57	3.38	3,690	104	1,060
Property 081	ISM-AOI081-0.5	08/13/2019	0-0.5	ISM	1.81 J	4.14 J	1.57 J	4.85	2.84 J	0.316 J	1.11 U	2,150	63.2	718
Property 081	AOI081-1.0-1.5	12/15/2023	1.0-1.5	Discrete	0.561 UJ	0.496 J	0.226 UJK	0.771 J	0.428 UJK	0.141 UJ	0.243 UJ	262 J	7.40 J	75.6 J
Property 082	ISM-AOI082-0.5	08/13/2019	0-0.5	ISM	2.71 J	2.81 J	2.91 J	7.22	7.8	0.672 J	2.79	2,230	90.1	649
Property 083	ISM-AOI083-0.5	08/13/2019	0-0.5	ISM	3.57 J	3.08 J	2.92 J	7.88	8.22	0.398 J	2.5	2,860	70.5	894
Property 083	AOI-083-1.0-1.5	12/06/2023	1.0-1.5	Discrete	0.507 J	3.54	2.63	2.43 J	6.08	0.911	2.84	1,760	69.6 J	453
Property 083	AOI-083-1.5-2.0	12/06/2023	1.5-2.0	Discrete	0.412 J	1.14 J	0.715 J	1.13 J	1.27 UJK	0.312 UJK	1.28 UJK	570 J	24.9 J	159 J
Property 084	ISM-AOI084-0.5	08/13/2019	0-0.5	ISM	0.667 J	0.892 J	0.675 J	1.78 J	1.15 J	0.144 UJ	0.64 UJ	951	34.7	291
Property 085	ISM-AOI085-0.5	08/13/2019	0-0.5	ISM	0.653 J	1.15 J	0.738 J	1.63 J	1.2 J	0.125 UJ	0.659 UJ	856	34.6	252
Property 086	ISM-AOI086-0.5	08/13/2019	0-0.5	ISM	1.34 J	2.32 J	1.2 J	3.15 J	2.4 J	0.255 J	1.14 U	1,780	58.4	543
Property 087	ISM-AOI087-0.5	01/29/2020	0-0.5	ISM	1.53 UJ	2.71 J	1.22 UJ	5.59	7.29	0.4 J	0.885 UJ	2,000	60.7	564
Property 087	AOI-087-1.0-1.5	12/06/2023	1.0-1.5	Discrete	6.14 UJ	3.69 UJ	1.88 UJ	6.32 J	3.47 UJK	1.46 UJ	1.45 UJ	1,200 J	28.3 J	344 J
Property 088	ISM-AOI088-0.5	02/17/2020	0-0.5	ISM	2.89 J	1.03 J	0.592 UJ	5.11 J	3.3 J	0.321 UJ	0.467 UJ	2,320 J	69.7 J	368 J
Property 089	ISM-AOI089-0.5	01/29/2020	0-0.5	ISM	3.39 J	3.77 J	1.94 J	6.73	5.67	1.18	1.58	3,110	133	755
Property 089	AOI-089-1.0-1.5	12/06/2023	1.0-1.5	Discrete	1.44 J	3.19	1.95 J	1.61 J	3.98	0.303 UJK	0.919	4,280	30.8 J	998
Property 089	AOI-089-1.5-2.0	12/06/2023	1.5-2.0	Discrete	0.399 UJ	0.371 UJK	0.230 UJ	0.225 UJK	0.425 UJK	0.155 UJ	0.136 UJ	323 J	3.51 J	80.6 J

**Table 3-2
Yard Soil Results
Former PWT Site
Ridgefield, Washington**



Location	Sample Name	Collection Date	Collection Depth (feet bgs)	Sample Type	Total HpCDFs (ng/kg)	Total HxCDDs (ng/kg)	Total HxCDFs (ng/kg)	Total PeCDDs (ng/kg)	Total PeCDFs (ng/kg)	Total TCDDs (ng/kg)	Total TCDFs (ng/kg)	Total Organic Carbon (mg/kg)
Property 001	COMP-AOI001-0.5	11/20/2015	0-0.5	Composite	644	451	402	44.6	122	11.6	28.8	18,000
Property 002	ISM-AOI002-0.5	11/20/2015	0-0.5	ISM	295	100	141	10.1	65.5	6.82	23.2	18,000
Property 002	SBS-AOI002-1.5	03/22/2016	1.0-1.5	Discrete	49.1	39.3	36.2	3.49 J	17.2	1.73	7.38	7,900
Property 003	ISM-AOI003-0.5	02/09/2016	0-0.5	ISM	121	90	88.6	10.3	23.5	5.63	6.44	17,000
Property 004	COMP-AOI004-0.5	07/28/2015	0-0.5	Composite	109	98.4	76.8	13.1	13	3.27	10.3	21,000
Property 004	ISM-AOI004-0.5	07/12/2017	0-0.5	ISM	156	134	124	24.1 U	60.5	7.69	50 U	28,000
Property 005	ISM-AOI005-0.5	04/16/2015	0-0.5	ISM	649	429	537	42.5	150	23.5	56.2	17,000
Property 005	SBS-AOI005-1.0	04/16/2015	0.5-1.0	Discrete	792	408	579	30.8	127	7.57	32.4	13,000
Property 005	SBS-AOI005-1.0-DUP	04/16/2015	0.5-1.0	Discrete Dup	869	470	651	36.2	147	9.59	44	12,000
Property 006	ISM-AOI006-0.5	04/16/2015	0-0.5	ISM	326	214	218	16.8	35.6	13.5	9.18	17,000
Property 006	SBS-AOI006-1.0	04/16/2015	0.5-1.0	Discrete	198	122	144	10.2	23	8.29	5.4	10,000
Property 007	ISM-AOI007-0.5	04/16/2015	0-0.5	ISM	657	311	601	16.8	142	2.33	15.5	21,000
Property 008	ISM-AOI008-0.5	05/21/2015	0-0.5	ISM	132	67.7	50.7	9.15	9.77	4.37	6.97	19,000
Property 009	ISM-AOI009-0.5	11/20/2015	0-0.5	ISM	81.1	31.1	46	4.06	12.9	2.82	5.27	14,000
Property 010	ISM-AOI010-0.5	12/02/2015	0-0.5	ISM	53	29.2	23.5	2.03	7.72	1.48	3.14	16,000
Property 011	ISM-AOI011-0.5	04/16/2015	0-0.5	ISM	207	76.8	90.1	7.37	14.7	1.37	5.74	13,000
Property 012	ISM-AOI012-0.5	04/23/2015	0-0.5	ISM	231	135	160	14.5	57.6	3.61	16.1	17,000
Property 013	ISM-AOI013-0.5-B	04/16/2015	0-0.5	ISM	541	349	374	38.9	70.7	16.5	32.5	17,000
Property 013	ISM-AOI013-0.5-F	04/16/2015	0-0.5	ISM	1,350	641	1,070	38.4	208	8.76	24.6	16,000
Property 014	ISM-AOI014-0.5	04/23/2015	0-0.5	ISM	284	276	360	29.8	102	6.26	17.9	16,000
Property 015	ISM-AOI015-0.5	04/23/2015	0-0.5	ISM	1,080	2,090	1,060	301	365	28	43.4	18,000
Property 016	ISM-AOI016-0.5	05/07/2015	0-0.5	ISM	362	262	311	35.6	118	7.4	23.8	21,000
Property 017	ISM-AOI017-0.5-A	04/23/2015	0-0.5	ISM Triplicate	532	329	306	34.2	77	9.97	18	17,000
Property 017	ISM-AOI017-0.5-B	04/23/2015	0-0.5	ISM Triplicate	329	209	214	23.3	57.2	6.09	12.4	16,000
Property 017	ISM-AOI017-0.5-C	04/23/2015	0-0.5	ISM Triplicate	452	283	291	38	80	10.3	17.2	17,000
Property 017	SBS-AOI017-1.0	04/23/2015	0.5-1.0	Discrete	68.6	45.9	53.9	3.72	13.3	3.34	3.53	11,000
Property 018	ISM-AOI018-0.5-B-A	04/16/2015	0-0.5	ISM Triplicate	213	112	110	14.6	24.5	4.54	11.7	16,000
Property 018	ISM-AOI018-0.5-B-B	04/16/2015	0-0.5	ISM Triplicate	186	119	96.4	13.8	19.4	3.97	12.6	17,000
Property 018	ISM-AOI018-0.5-B-C	04/16/2015	0-0.5	ISM Triplicate	160	109	89.5	12.5	16.6	2.76	6.94	17,000
Property 018	ISM-AOI018-0.5-F	04/16/2015	0-0.5	ISM	196	143	140	15.2	42.7	4.43	13.1	19,000
Property 018	SBS-AOI018-1.0	04/16/2015	0.5-1.0	Discrete	21.7	14	13.3	1.06	2.8	0.641	3.33	7,500
Property 019	ISM-AOI019-0.5	06/22/2015	0-0.5	ISM	206	141	188	16.1	62.1	7.32	20.4	19,000
Property 019	SBS-AOI019-1.5	03/25/2016	1.0-1.5	Discrete	261	163	231	8.49	81.1	2.47	20.6	11,000
Property 020B	ISM-AOI020B-0.5	04/30/2015	0-0.5	ISM	306	181	175	16	27	4.14	7.91	22,000
Property 020B	SBS-AOI020B-1.0	04/30/2015	0-0.5	Discrete	47.8	21.6	15.6	1.47	3.22	0.569	1.67	15,000
Property 021	ISM-AOI021-0.5	04/30/2015	0-0.5	ISM	48	21.8	14.3	1.6	1.69	0.159 J	0.24	11,000
Property 022	ISM-AOI022-0.5	12/02/2015	0-0.5	ISM	91.8	56.6	58.5	5.09	19.3	2.55	6.99	14,000
Property 023	ISM-AOI023-0.5	06/15/2016	0-0.5	ISM	241	152	121	13.2	16.1	3.83	6.57	18,000
Property 024	ISM-AOI024-0.5	04/30/2015	0-0.5	ISM	212	90.6	161	12.7	91.2	2.15	41.4	22,000
Property 025	ISM-AOI025-0.5	04/30/2015	0-0.5	ISM	193	132	101	16.2	22.4	2.98	9.35	15,000

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Location	Sample Name	Collection Date	Collection Depth (feet bgs)	Sample Type	Total HpCDFs (ng/kg)	Total HxCDDs (ng/kg)	Total HxCDFs (ng/kg)	Total PeCDDs (ng/kg)	Total PeCDFs (ng/kg)	Total TCDDs (ng/kg)	Total TCDFs (ng/kg)	Total Organic Carbon (mg/kg)
Property 026	ISM-AOI026-0.5	09/21/2015	0-0.5	ISM	98.2	71.2	60.2	8.84	9.72	1.03	4.87	16,000
Property 027	ISM-AOI027-0.5	04/30/2015	0-0.5	ISM	116	76.8	54.6	8.27	8.3	1.16	4.1	20,000
Property 028A	ISM-AOI028A-0.5	12/02/2015	0-0.5	ISM	82.1	58.2	46.7	7.14	14.6	2.77	7.4	15,000
Property 028B	ISM-AOI028B-0.5	12/02/2015	0-0.5	ISM	235	119	132	15	81	7.19	30.7	19,000
Property 028B	SBS-AOI028B-1.5	03/22/2016	1.0-1.5	Discrete	150	99.9	129	6.36	45.1	2.22	12.6	17,000
Property 029A	ISM-AOI029A-0.5	04/30/2015	0-0.5	ISM	152	97.5	49	7.82	9.05	1.66	3.82	22,000
Property 029B	ISM-AOI029B-0.5	04/23/2015	0-0.5	ISM	329	214	179	34.4	57.7	10.5	18.6	13,000
Property 030	ISM-AOI030-0.5	04/30/2015	0-0.5	ISM	121	79.5	61.2	5.41	8.14	0.625 U	1.69	17,000
Property 030	ISM-AOI030-0.5	05/21/2015	0-0.5	ISM Dup	120	92.6	61.3	11.7	11.9	2.37	5.63	19,000
Property 031	ISM-AOI031-0.5	04/16/2015	0-0.5	ISM	196	96.1	83.5	10.4	19.3	4.03	11.9	16,000
Property 032	ISM-AOI032-0.5	04/23/2015	0-0.5	ISM	201	114	125	28.8	69.3	12.3	23.5	15,000
Property 032	SBS-AOI032-1.0	04/23/2015	0.5-1.0	Discrete	110	39.1	41.6	3.36	12.2	0.769	4.53	12,000
Property 034	ISM-AOI034-0.5	12/02/2015	0-0.5	ISM	95.4	64	60.4	8.02	28.8	7.58	23.3	19,000
Property 035	ISM-AOI035-0.5	12/23/2015	0-0.5	ISM	639	141	272	41.5	160	4.76	64.2	17,000
Property 036	ISM-AOI036-0.5	04/23/2015	0-0.5	ISM	323	189	165	35.5	67.5	22.1	31.3	13,000
Property 037	ISM-AOI037-0.5	11/20/2015	0-0.5	ISM	211	103	121	13.5	45.1	10.1	16.2	23,000
Property 037	SBS-AOI037-1.5	03/22/2016	1.0-1.5	Discrete	5.47	5.97	5.18	0.35 J	2.21 J	0.465 J	0.749 J	10,000
Property 038	ISM-AOI038-0.5	05/29/2015	0-0.5	ISM	359	260	156	34.4	27.1	8.14	13.5	20,000
Property 039	ISM-AOI039-0.5	05/29/2015	0-0.5	ISM	284	103	143	16.1	24.7	7.12	14.5	26,000
Property 041A	ISM-AOI041A-0.5	05/04/2016	0-0.5	ISM	145	98.7	107	9.1	32.2	2.05	8.72	13,000
Property 041B	ISM-AOI041B-0.5	05/04/2016	0-0.5	ISM	2,880	1,220	3,020	43.9	695	4.72	52.4	16,000
Property 043	ISM-AOI043-0.5	03/08/2017	0-0.5	ISM	137	90.3	138 UJ	17.1	154 UJ	4.61 U	38.8 UJ	18,000
Property 043	AOI-043-1.0-1.5	12/06/2023	1.0-1.5	Discrete	357 J	320 J	439 J	56.1 JK	380 JK	13.1 UJK	103 UJK	--
Property 043	AOI-043-1.5-2.0	12/06/2023	1.5-2.0	Discrete	234 J	211 J	325 J	47.4 JK	310 JK	12.9 JK	95.7 JK	--
Property 043	AOI043-2.0-2.5	03/13/2024	2.0-2.5	Discrete	24.2 JK	32.0 J	50.3 JK	11.4 UJK	50.9 JK	1.41 J	17.2 UJK	--
Property 043	AOI043-2.5-3.0	03/13/2024	2.5-3.0	Discrete	3.17	3.89 JK	6.76 JK	1.61 UJK	6.92 UK	0.156 UJK	1.78 UK	--
Property 044	ISM-AOI044-0.5	03/08/2017	0-0.5	ISM	85.4	48 U	52.1	10.1 U	30.5 U	3.69 U	10.5 U	23,000
Property 045	ISM-AOI045-0.5	08/07/2017	0-0.5	ISM	54.8 U	37.6 U	40.3 U	8.72 U	18.1 U	3.49	5.36 U	18,000
Property 046	ISM-AOI046-0.5	06/14/2017	0-0.5	ISM	225 U	119	183 U	11.8 U	55.3 U	2.91 U	9.5 U	18,000
Property 046	AOI-046-1.0-1.5	12/06/2023	1.0-1.5	Discrete	16.9	10.6 K	18.8 K	0.431 UJK	7.19 K	0.128 U	1.87 K	--
Property 048	ISM-AOI048-0.5	08/07/2017	0-0.5	ISM	194	55.1 U	84.4 U	8.84	29 U	3.48 U	7.79 U	19,000
Property 049	ISM-AOI049-0.5	03/08/2017	0-0.5	ISM	48.8	23.2 U	23.2 U	4.38	13.7 U	1.76 U	4.21 U	18,000
Property 051	ISM-AOI051-0.5	03/08/2017	0-0.5	ISM	72	26.2	39.5 U	4.23 J	22.9 U	2.69 U	5.16 U	24,000
Property 052	ISM-AOI052-0.5	03/08/2017	0-0.5	ISM	86.7 U	38.6	45.6	7.66 U	24.7 U	3.55 U	7.95 U	21,000
Property 054	ISM-AOI054-0.5	03/08/2017	0-0.5	ISM	31.4	17 U	13.8 U	4.51 U	9.02	2.22 U	4.25 U	18,000
Property 056	ISM-AOI056-0.5	03/08/2017	0-0.5	ISM	294 U	137 U	197	16.7 U	83.1	3.42 U	12 U	22,000
Property 056	AOI-056-1.0-1.5	12/06/2023	1.0-1.5	Discrete	27.5	23.4 K	26.9 K	2.59	9.05 K	0.313 UJK	1.53	--
Property 057	ISM-AOI057-0.5	06/14/2017	0-0.5	ISM	208	115	178 J	15.4	107 J	6.66 U	36 J	25,000
Property 057	AOI057-1.0-1.5	12/15/2023	1.0-1.5	Discrete	14.8 J	10.2 JK	12.0 JK	2.23 UJK	5.48 UJK	0.522 UJK	1.20 UJK	--
Property 059	ISM-AOI059-0.5	08/07/2017	0-0.5	ISM	704 U	278	387 U	23.8 U	78.9 U	4.89 U	7.53 U	16,000

**Table 3-2
Yard Soil Results
Former PWT Site
Ridgefield, Washington**



Location	Sample Name	Collection Date	Collection Depth (feet bgs)	Sample Type	Total HpCDFs (ng/kg)	Total HxCDDs (ng/kg)	Total HxCDFs (ng/kg)	Total PeCDDs (ng/kg)	Total PeCDFs (ng/kg)	Total TCDDs (ng/kg)	Total TCDFs (ng/kg)	Total Organic Carbon (mg/kg)
Property 061	ISM-AOI061-0.5	03/08/2017	0-0.5	ISM	410	95.4	180	11.3 U	54.1 U	2.12 U	5.25 U	18,000
Property 061	AOI-061-1.0-1.5	12/06/2023	1.0-1.5	Discrete	89.1	49.9	74.2 K	4.72 JK	16.0 K	0.257 UJK	2.73	--
Property 062	ISM-AOI062-0.5	06/14/2017	0-0.5	ISM	174	84.6	106 U	11.4 U	43.3 U	3.17 U	11.2 U	28,000
Property 063	ISM-AOI063-0.5-1	06/14/2017	0-0.5	ISM Triplicate	55.2 J	27.2 UJ	35.7 UJ	4.9 UJ	20.7 UJ	1.78 J	9.87 UJ	19,000
Property 063	ISM-AOI063-0.5-2	06/14/2017	0-0.5	ISM Triplicate	209 UJ	61.6 J	118 UJ	7.99 UJ	52 UJ	2.89 UJ	13.2 UJ	20,000
Property 063	ISM-AOI063-0.5-3	06/14/2017	0-0.5	ISM Triplicate	85 J	43.9 J	69.7 J	11.8 UJ	51.6 UJ	7.16 UJ	31.8 UJ	18,000
Property 064	ISM-AOI064-0.5	03/08/2017	0-0.5	ISM	116	37.4 U	89.1 UJ	7.6	109 UJ	5.82 U	22.8 UJ	19,000
Property 066	ISM-AOI066-0.5-1	03/09/2017	0-0.5	ISM Triplicate	203	106	112 U	16.8 U	44.1	4.73 U	13.7 U	20,000
Property 066	ISM-AOI066-0.5-2	03/09/2017	0-0.5	ISM Triplicate	674	231	307 U	25.2	78.4 U	8.2 U	20.6 U	20,000
Property 066	ISM-AOI066-0.5-3	03/09/2017	0-0.5	ISM Triplicate	279 U	124	134 U	14 U	40.5	1.87 U	5.99 U	24,000
Property 066	AOI-066-1.0-1.5	12/06/2023	1.0-1.5	Discrete	27.8	22.9	19.5 K	3.13	7.05 K	0.212 U	1.02 UK	--
Property 067	ISM-AOI067-0.5	03/09/2017	0-0.5	ISM	24.5	17 U	16.9 U	2.98 UJ	8.47 U	1.13 U	2.31 U	14,000
Property 068	ISM-AOI068-0.5	05/23/2017	0-0.5	ISM	107 U	58.1	63.6 U	7.9 U	24.8	2.19 U	5.96 U	19,000
Property 071	ISM-AOI071-0.5	06/14/2017	0-0.5	ISM	116	66.4 U	100	7.06 U	37.3 U	2.28 U	8.8 U	21,000
Property 072	ISM-AOI072-0.5	03/09/2017	0-0.5	ISM	165	74.3	62.5	10.1 U	23.3 U	2.37 U	8.11 U	16,000
Property 073	ISM-AOI073-0.5	05/23/2017	0-0.5	ISM	122	77.7 U	99.9	13.1 U	36.2	8.03 U	8.53 U	17,000
Property 075	ISM-AOI075-0.5	05/23/2017	0-0.5	ISM	113	75.2 U	83.5	13.3 U	36.8 U	9.02 U	14.3 U	19,000
Property 076	ISM-AOI076-0.5	03/09/2017	0-0.5	ISM	113	59.3 U	75.6 U	14.2	38.1 U	6.53 U	19.3 U	23,000
Property 077	ISM-AOI077-0.5	03/09/2017	0-0.5	ISM	139	70.8 U	103	12.5 U	60.1 U	3.77 U	17.7 U	19,000
Property 078	ISM-AOI078-0.5	08/18/2017	0-0.5	ISM	184	152	131	26.5 U	57.6	8.73	40.5 U	23,000
Property 079	ISM-AOI079-0.5	08/13/2019	0-0.5	ISM	307 J	271 J	319 J	53 J	465 UJ	15.6 UJ	112 J	28,000
Property 079	AOI079-1.0-1.5	12/15/2023	1.0-1.5	Discrete	155 J	167 JK	149 JK	25.7 JK	66.0 JK	5.42 JK	21.7 JK	--
Property 079	AOI-079-1.5-2.0	12/15/2023	1.5-2.0	Discrete	37.9 J	46.6 J	39.7 JK	7.89 JK	25.8 JK	1.89 UJK	8.30 JK	--
Property 080	ISM-AOI080-0.5	08/13/2019	0-0.5	ISM	309 J	175 J	277 J	40.7 J	162 UJ	18.2 UJ	62.3 UJ	30,000
Property 081	ISM-AOI081-0.5	08/13/2019	0-0.5	ISM	138 J	119 J	105 J	17.6 UJ	52 UJ	4.14 UJ	11.8 UJ	30,000
Property 081	AOI081-1.0-1.5	12/15/2023	1.0-1.5	Discrete	14.7 J	17.8 JK	12.6 UJK	2.08 JK	4.94 UJK	1.34 J	2.31 UJK	--
Property 082	ISM-AOI082-0.5	08/13/2019	0-0.5	ISM	152 J	96 J	124 J	23 J	111 UJ	11.5 UJ	55.7 UJ	27,000
Property 083	ISM-AOI083-0.5	08/13/2019	0-0.5	ISM	188 J	118 J	170 UJ	19.3 J	104 UJ	7.27 UJ	36.7 UJ	35,000
Property 083	AOI-083-1.0-1.5	12/06/2023	1.0-1.5	Discrete	129	102	93.8	36.9 K	64.4 K	22.4 K	60.7 K	--
Property 083	AOI-083-1.5-2.0	12/06/2023	1.5-2.0	Discrete	42.9 J	38.4 J	33.4 JK	13.6 JK	26.5 JK	6.72 UJK	25.0 UJK	--
Property 084	ISM-AOI084-0.5	08/13/2019	0-0.5	ISM	65.1 J	39.6 J	43.4 UJ	5.86 UJ	22.5 UJ	1.67 UJ	5.52 UJ	16,000
Property 085	ISM-AOI085-0.5	08/13/2019	0-0.5	ISM	54.6 J	38.9 J	34.7 UJ	6.48 UJ	19.2 UJ	2.51 UJ	7.59 UJ	25,000
Property 086	ISM-AOI086-0.5	08/13/2019	0-0.5	ISM	104 J	77.1 J	72.3 UJ	11.8 J	40.2 UJ	4.6 UJ	11.2 UJ	25,000
Property 087	ISM-AOI087-0.5	01/29/2020	0-0.5	ISM	131 J	91.1 J	110 J	16.6 J	99.6 J	5.22 J	26.5 UJ	21,000
Property 087	AOI-087-1.0-1.5	12/06/2023	1.0-1.5	Discrete	67.2 J	76.5 J	64.6 JK	3.69 UJ	35.3 UJK	1.46 UJ	6.93 UJK	--
Property 088	ISM-AOI088-0.5	02/17/2020	0-0.5	ISM	206 J	50.9 J	126 J	6.65 J	31.8 J	1.43 UJ	4.7 UJ	25,000
Property 089	ISM-AOI089-0.5	01/29/2020	0-0.5	ISM	268 J	130 J	159 J	26 J	60.6 J	9.2 J	21.9 J	27,000
Property 089	AOI-089-1.0-1.5	12/06/2023	1.0-1.5	Discrete	129	145	121 K	17.4 K	36.0 K	4.98 UK	16.1 K	--
Property 089	AOI-089-1.5-2.0	12/06/2023	1.5-2.0	Discrete	11.5 J	13.2 J	10.5 JK	2.01 UJK	4.39 UJK	0.511 UJK	1.62 UJK	--

**Table 3-2
Yard Soil Results
Former PWT Site
Ridgefield, Washington**



<p>Notes</p> <p>Bold indicates values that exceed the Model Toxics Control Act Method B soil cleanup level of 13.0 ng/kg.</p> <p>bgs = below ground surface.</p> <p>Dup = duplicate sample.</p> <p>ISM = incremental sampling methodology.</p> <p>J = result is estimated.</p> <p>JK = result is estimated and an estimated maximum potential concentration.</p> <p>mg/kg = milligrams per kilogram.</p> <p>ng/kg = nanograms per kilogram.</p> <p>OPP = off-property portion.</p> <p>PWT = Pacific Wood Treating Co.</p> <p>TEQ = toxicity equivalent.</p> <p>U = result is non-detect.</p> <p>UJ = result is non-detect with an estimated detection limit.</p> <p>UJK = result is non-detect, an estimated value, and an estimated maximum potential concentration.</p> <p>^(a)Dioxin/furan TEQ calculated as the sum of each congener concentration multiplied by the corresponding mammalian TEF value. Detected results qualified as estimated are included in the calculation. Non-detect values are multiplied by one-half.</p> <p>References</p> <p>⁽¹⁾Ecology. 2024. <i>Cleanup Levels and Risk Calculation (CLARC) table</i>. Washington State Department of Ecology, Toxics Cleanup Program. February.</p> <p>⁽²⁾Ecology. 2007. <i>Evaluating the Toxicity and Assessing the Carcinogenic Risk of Environmental Mixtures Using Toxicity Equivalency Factors</i>. Supporting Material for CLARC. Washington State Department of Ecology.</p>

**Table 3-3
ROW Soil Results
Former PWT Site
Ridgefield, Washington**



Location	Sample Name	Collection Date	Collection Depth (ft bgs)	Sample Type	Area	Dioxin TEQ ^{(a)(1)(2)} (ng/kg)	1,2,3,4,6,7,8-HpCDD (ng/kg)	1,2,3,4,6,7,8-HpCDF (ng/kg)	1,2,3,4,7,8,9-HpCDF (ng/kg)	1,2,3,4,7,8-HxCDD (ng/kg)	1,2,3,4,7,8-HxCDF (ng/kg)	1,2,3,6,7,8-HxCDD (ng/kg)	1,2,3,6,7,8-HxCDF (ng/kg)
ROW001	SS-ROW001-0.5	05/04/2016	0-0.5	Discrete	Phase 1 OPP	30.5	694	80.7	5.37 J	11.7	12.1	45.7	8.18 J
ROW004	SS-ROW004-0.5	05/07/2015	0-0.5	Discrete	Phase 1 OPP	1.12	21.2	6.66	0.303 J	0.391 J	0.517 J	1.09 J	0.378 J
ROW005	SS-ROW005-0.5	06/08/2015	0-0.5	Discrete	Phase 1 OPP	46.9	1,400	194	12.3	16.5	31.6	65.3	14.9
ROW005	SBS-ROW005-1.0	06/08/2015	0.5-1.0	Discrete	Phase 1 OPP	38.1	1,230	175	11.4	13.6	24	59.1	11
ROW005	SBS-ROW005-2.0	08/26/2015	1.5-2.0	Discrete	Phase 1 OPP	9.93	279	49.9	3.21	3.89	6.06	14.2	3.09
ROW008	SBS-ROW008-0.5	05/07/2015	0-0.5	Discrete	Phase 1 OPP	10.7	344	57.4	3.06 J	3.8 J	4.74 J	14.3	3.12 J
ROW010W	SS-ROW010W-0.5	11/02/2015	0-0.5	Discrete	Phase 1 OPP	20.4	533	114	6.24 J	6.91 J	19.1	28	8 J
ROW010W	SBS-ROW010W-1.5	11/02/2015	1.0-1.5	Discrete	Phase 1 OPP	1.09	27.5	5.45	0.393 J	0.351 J	0.784 J	1.19	0.419 J
ROW011	SS-ROW011-0.5	03/22/2016	0-0.5	Discrete	Phase 1 OPP	33.9	1,090	132	9.29	10.3	25.2	48.9	11.2
ROW011	SBS-ROW011-1.5	03/22/2016	1.0-1.5	Discrete	Phase 1 OPP	14.8	370	46.3	4.38 J	3.93 J	11.3	16.3	7.16
ROW012	SS-ROW012-0.5	04/23/2015	0-0.5	Discrete	Phase 1 OPP	10.0	345	44.1	2.5	3.34	4.29	16.3	2.9
ROW013	SS-ROW013-0.5	06/08/2015	0-0.5	Discrete	Phase 1 OPP	266	8,550	1,120	71.6	70.7	280	378	109
ROW013	SBS-ROW013-1.0	06/08/2015	0.5-1.0	Discrete	Phase 1 OPP	241	7,280	1,080	68.2	50.5	331	367	107
ROW013	SBS-ROW013-2.0	09/01/2015	1.5-2.0	Discrete	Phase 1 OPP	7.99	248	40.3	2.41	2.42	8.01	12	3.06
ROW014	SS-ROW014-0.5	04/23/2015	0-0.5	Discrete	Phase 1 OPP	352	11,100	1,700	99.9	88.6	403	569	161
ROW014	SS-ROW014-1.0	04/23/2015	0.5-1.0	Discrete	Phase 1 OPP	70.4	2,400	358	19.1	17.7	80.7	98.9	32.1
ROW014	SBS-ROW014-2.0	08/26/2015	1.5-2.0	Discrete	Phase 1 OPP	8.63	271	42.4	2.35	2.5	9.42	12.3	3.61
ROW016	SS-ROW016-0.5	06/08/2015	0-0.5	Discrete	Phase 1 OPP	24.7	665	105	5.25	8.74	17.3	34.2	8.35
ROW016	SBS-ROW016-1.0	06/08/2015	0.5-1.0	Discrete	Phase 1 OPP	28.9	861	115	8.26	11	24.6	50.5	11.3
ROW016	SBS-ROW016-2.0	09/01/2015	1.5-2.0	Discrete	Phase 1 OPP	3.8	113	14.9	0.89 J	1.39	2.63	5.02	1.45
ROW018	SS-ROW018-0.5	06/08/2015	0-0.5	Discrete	Phase 1 OPP	17.9	521	84.3	5.87	7.71	7.33	22.8	4.41
ROW018	SBS-ROW018-1.0	06/08/2015	0.5-1.0	Discrete	Phase 1 OPP	10.0	298	50.5	3.27	3.61	4.23	15.9	2.22 U
ROW019	SS-ROW019-0.5	06/08/2015	0-0.5	Discrete	Phase 1 OPP	23.4	673	93.5	5.15	7.15	19.6	31.9	7.93
ROW019	SBS-ROW019-1.0	06/08/2015	0.5-1.0	Discrete	Phase 1 OPP	15.6	437	69.1	4.74	4.82	16.2	24.1	6.27
ROW019	SBS-ROW019-1.5	08/26/2015	1.0-1.5	Discrete	Phase 1 OPP	40.7	1,220	197	10.5	12.8	40.9	54.8	16
ROW019	SBS-ROW019-2.0	09/01/2015	1.5-2.0	Discrete	Phase 1 OPP	7.94	229	40.2	2.14	2.18	9.1	11.3	3.39
ROW022	SS-ROW022-0.5	06/08/2015	0-0.5	Discrete	Phase 1 OPP	19.5	572	84.6	4.88	7.19	11.3	26.2	5.68
ROW022	SBS-ROW022-1.0	06/08/2015	0.5-1.0	Discrete	Phase 1 OPP	23.1	600	107	7.29	8.06	15.7	36.5	7.71
ROW022	SBS-ROW022-1.5	08/26/2015	1.0-1.5	Discrete	Phase 1 OPP	6.77	174	28.4	1.83	2.31	4.1	8.1	2.75
ROW022W	SS-ROW022W-0.5	11/02/2015	0-0.5	Discrete	Phase 1 OPP	58.9	1,750	342	20.1	21.4	47.7	84.4	23.3
ROW022W	SBS-ROW022W-1.5	11/02/2015	1.0-1.5	Discrete	Phase 1 OPP	4.98	154	27.6	1.83	1.44	3.41	6.35	1.85
ROW023	SS-ROW023-0.5	06/08/2015	0-0.5	Discrete	Phase 1 OPP	40.3	1,240	284	21.4	17	20.2	53.6	9.45
ROW023	SBS-ROW023-1.0	06/08/2015	0.5-1.0	Discrete	Phase 1 OPP	38.7	1,080	240	19.5	14	21.8	60.6	10.2
ROW023	SBS-ROW023-1.5	09/01/2015	1.0-1.5	Discrete	Phase 1 OPP	9.14	263	101	6.57	2.97	6.21	11.9	2.62
ROW023	SBS-ROW023-2.0	09/01/2015	1.5-2.0	Discrete	Phase 1 OPP	2.39	71.4	21.3	1.71	0.741 J	1.3	2.6	0.626 J
ROW025	SS-ROW025-0.5	06/08/2015	0-0.5	Discrete	Phase 1 OPP	47.1	1,430	186	12.1	22.3	17.5	63.6	10.9
ROW025	SBS-ROW025-1.0	06/08/2015	0.5-1.0	Discrete	Phase 1 OPP	14.2	395	60.8	4.26	5.44	6.64	22.4	4.16
ROW025	SBS-ROW025-1.5	08/26/2015	1.0-1.5	Discrete	Phase 1 OPP	9.10	207	34.9	2.37	3.77	4.73	12.2	2.38
ROW026	SS-ROW026-0.5	05/21/2015	0-0.5	Discrete	Phase 1 OPP	14.7	424	72.2	3.8	5.27	8.48	18.8	3.95
ROW026	SBS-ROW026-1.0	05/21/2015	0.5-1.0	Discrete	Phase 1 OPP	23.6	653	131	6.46	7.46	16.1	36.2	7.05

**Table 3-3
ROW Soil Results
Former PWT Site
Ridgefield, Washington**



Location	Sample Name	Collection Date	Collection Depth (ft bgs)	Sample Type	Area	Dioxin TEQ ^{(a)(1)(2)} (ng/kg)	1,2,3,4,6,7,8- HpCDD (ng/kg)	1,2,3,4,6,7,8- HpCDF (ng/kg)	1,2,3,4,7,8,9- HpCDF (ng/kg)	1,2,3,4,7,8-HxCDD (ng/kg)	1,2,3,4,7,8-HxCDF (ng/kg)	1,2,3,6,7,8-HxCDD (ng/kg)	1,2,3,6,7,8-HxCDF (ng/kg)
ROW026	SBS-ROW026-1.5	08/26/2015	1.0-1.5	Discrete	Phase 1 OPP	17.8	460	83.5	4.72	5.75	15.2	24.9	6.62
ROW026	SBS-ROW026-2.0	08/26/2015	1.5-2.0	Discrete	Phase 1 OPP	8.81	232	44.1	2.47	2.68	8.03	11.9	3.44
ROW029B	SS-ROW029B-0.5	06/08/2015	0-0.5	Discrete	Phase 1 OPP	34.9	990	152	9.96	16.2	17.4	45.4	8.97
ROW029B	SBS-ROW029B-1.0	06/08/2015	0.5-1.0	Discrete	Phase 1 OPP	19.6	523	84.4	6.76	8.12	11.8	28.9	5.98 U
ROW029B	SBS-ROW029B-1.5	08/26/2015	1.0-1.5	Discrete	Phase 1 OPP	10.0	300	51.4	3.36	3.5	5.56	12.1	2.79
ROW030	SS-ROW030-0.5	04/30/2015	0-0.5	Discrete	Phase 1 OPP	15.4	430	70.2	3.52	6.25	8.45	21.4	4.38
ROW030	SS-ROW030-1.0	04/30/2015	0.5-1.0	Discrete	Phase 1 OPP	7.42	199	23.9	1.53	3.05	3.63	9.45	1.84
ROW033W	SS-ROW033W-0.5	11/02/2015	0-0.5	Discrete	Phase 1 OPP	51.0	999	248	15.1	14.7	36.5	58.3	32
ROW033W	SBS-ROW033W	11/02/2015	1.0-1.5	Discrete	Phase 1 OPP	26.6	463	107	8.1	6.1	22.4	25.5	22.3
ROW036	SS-ROW036-0.5	04/23/2015	0-0.5	Discrete	Phase 1 OPP	16.0	363	61.6	5.37	6.07	5.95	14.1	3.26
ROW036	SS-ROW036-1.0	04/23/2015	0.5-1.0	Discrete	Phase 1 OPP	0.746	13	2.78	0.214 J	0.266 J	0.447 J	0.539 J	0.261 J
ROWRRW	SS-ROWRRW-0.5	03/22/2016	0-0.5	Discrete	Phase 1 OPP	22.4	687	87.3	6.06	8.33	11.8	33.2	6.08
ROWRRW	SBS-ROWRRW-1.5	03/22/2016	1.0-1.5	Discrete	Phase 1 OPP	3.17	89.3	11.6	1.36 J	1.49 J	2.09 J	4.33 J	1.04 J
ROW-002N	ROW-002N-0.5	08/11/2016	0-0.5	Discrete	Phase 2 OPP	24.5	477	72.1	5.05	7.7	12.1	35.2	11.6
ROW010E	SS-ROW010E-0.5	11/02/2015	0-0.5	Discrete	Phase 2 OPP	23.6	561	101	6.69	6.84	19.9	29.8	10.7
ROW022E	SS-ROW022E-0.5	11/02/2015	0-0.5	Discrete	Phase 2 OPP	41.8	1,250	224	13.6	14.9	39.5	67.5	17
ROW022E	SS-ROW022E-0.5	11/02/2015	0-0.5	Discrete Dup	Phase 2 OPP	46.8	1,600	218	14.3	14.3	41.1	72.6	19.6
ROW029BS	SS-ROW029BS-0.5	11/02/2015	0-0.5	Discrete	Phase 2 OPP	36.1	990	197	14.5	13.3	26.3	50.3	9.76 J
ROW029BS	SBS-ROW029BS-1.5	11/02/2015	1.0-1.5	Discrete	Phase 2 OPP	2.15	55.6	8.46	0.797 J	0.608 J	1.31	2.37	0.54 J
ROW038S	SS-ROW038S-0.5	11/02/2015	0-0.5	Discrete	Phase 2 OPP	3.78	107	19.1	1 J	1.52 J	1.8 J	4.9 J	0.84 J
ROW-P2-001	ROW-P2-001-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	23.4	669 J	108	6.68	6.55	25.4	32.7	9.76
ROW-P2-002	ROW-P2-002-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	22.5	472	64.9	5.65	4.76 J	16.8	22.8	7.61
ROW-P2-002	ROW-P2-002-0.5-DUP	04/15/2016	0-0.5	Discrete Dup	Phase 2 OPP	21.9	451	63.4	5.51	4.52 J	16.5	23	7.68
ROW-P2-003	ROW-P2-003-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	51.0	1,580	213	12.1	13.2	50.4	76.6	20.3
ROW-P2-004	ROW-P2-004-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	15.9	568	58.3	3.07 J	3.7 J	7.27	29	3.32 J
ROW-P2-005	ROW-P2-005-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	46.1	1,440	197	10.6	12.2	40.4	75	16.4
ROW-P2-006	ROW-P2-006-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	18.2	499	86.3	5.29	5.25	17.9	23.6	6.21
ROW-P2-007	ROW-P2-007-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	9.97	335	54.4	3.79	2.81	5.99	13.4	2.26
ROW-P2-008	ROW-P2-008-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	69.3	2,200	557	42.9	22.7	45.2	83.3	17.8
ROW-P2-009	ROW-P2-009-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	26.9	69.3	39	8.15	2.26	42.6	12	20.3
ROW-P2-010	ROW-P2-010-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	3.53	118	15.3	0.945 J	0.842 J	2.45	5.05	1.04
ROW-P2-011A	ROW-P2-011A-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	183	5,290	813	58.9	45.2	228	305	83.8
ROW-P2-011B	ROW-P2-011B-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	101	2,880	426	30.1	27	119	150	48
ROW-P2-012	ROW-P2-012-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	9.85	287	34.7	2.05	3.19	7	13.2	2.81
ROW-P2-013	ROW-P2-013-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	3.59	116	13.5	0.862 J	1.28	2.03	5.15	0.821 J
ROW-P2-014	ROW-P2-014-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	7.52	234	29.1	1.86	2.36	5.25	10.3	2.01
ROW-P2-015	ROW-P2-015-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	9.84	308	43.3	2.58	3.38	5.78	15.4	2.28
ROW-P2-016	ROW-P2-016-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	277	2,440	1,800	71.4	93	393	606	130
ROW-P2-017	ROW-P2-017-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	73.2	2,440	302	17.8	18.5	82.2	105	29.2
ROW-P2-018	ROW-P2-018-0.5	04/20/2016	0-0.5	Discrete	Phase 2 OPP	8.26	209	39.5	2.52	2.22	5.01	10.4	2.38

**Table 3-3
ROW Soil Results
Former PWT Site
Ridgefield, Washington**



Location	Sample Name	Collection Date	Collection Depth (ft bgs)	Sample Type	Area	Dioxin TEO ^{(a)(1)(2)} (ng/kg)	1,2,3,4,6,7,8-HpCDD (ng/kg)	1,2,3,4,6,7,8-HpCDF (ng/kg)	1,2,3,4,7,8,9-HpCDF (ng/kg)	1,2,3,4,7,8-HxCDD (ng/kg)	1,2,3,4,7,8-HxCDF (ng/kg)	1,2,3,6,7,8-HxCDD (ng/kg)	1,2,3,6,7,8-HxCDF (ng/kg)
ROW-P2-019	ROW-P2-019-0.5	04/20/2016	0-0.5	Discrete	Phase 2 OPP	11.5	349	77.2	4.21	3.72	7.39	15.6	3.14
ROW-P2-020	ROW-P2-020-0.5	04/20/2016	0-0.5	Discrete	Phase 2 OPP	14.3	454	110	7.07	2.5	8.59	21	3.45
ROW-P2-021	ROW-P2-021-0.5	04/20/2016	0-0.5	Discrete	Phase 2 OPP	30.8	857	175	11.6	7.64	34	43.2	12.8
ROW-P2-022	ROW-P2-022-0.5	04/20/2016	0-0.5	Discrete	Phase 2 OPP	2.98	88.6	11.8	0.864 J	0.483 J	1.27	2.64	0.775 J
ROW-P2-033	ROW-P2-033-0.5	04/20/2016	0-0.5	Discrete	Phase 2 OPP	101	2,810 J	514	31.1	20	126	150	51.2
ROW-P2-034	ROW-P2-034-0.5	04/20/2016	0-0.5	Discrete	Phase 2 OPP	29.5	804	131	7.22	7.67	26.3	42.4	12.3
ROW078N	ROW-078N	11/22/2017	0-0.5	Discrete	Phase 3 OPP	47.9	985	150	10.3	19	22.7	60.2	12.4
ROW078NE	ROW-078NE	11/22/2017	0-0.5	Discrete	Phase 3 OPP	14.0	271	43.3	3.28 J	4.76 J	10.9	16.6	3.78 J
ROW078NW	ROW-078NW	11/22/2017	0-0.5	Discrete	Phase 3 OPP	21.2	445	58.3	3.35 J	7.98	7.41	29.8	4.18 J

**Table 3-3
ROW Soil Results
Former PWT Site
Ridgefield, Washington**



Location	Sample Name	Collection Date	Collection Depth (ft bgs)	Sample Type	Area	1,2,3,7,8,9-HxCDD (ng/kg)	1,2,3,7,8,9-HxCDF (ng/kg)	1,2,3,7,8-PeCDD (ng/kg)	1,2,3,7,8-PeCDF (ng/kg)	2,3,4,6,7,8-HxCDF (ng/kg)	2,3,4,7,8-PeCDF (ng/kg)	2,3,7,8-TCDD (ng/kg)
ROW001	SS-ROW001-0.5	05/04/2016	0-0.5	Discrete	Phase 1 OPP	33.2	0.315 U	7.29 J	2.07 J	8.95 J	4.93 J	0.604 J
ROW004	SS-ROW004-0.5	05/07/2015	0-0.5	Discrete	Phase 1 OPP	0.876 J	0.143 U	0.259 J	0.1 U	0.301 J	0.148 J	0.111 J
ROW005	SS-ROW005-0.5	06/08/2015	0-0.5	Discrete	Phase 1 OPP	45.4	0.712 J	7.09	4.43	8.7	6.08	0.664
ROW005	SBS-ROW005-1.0	06/08/2015	0.5-1.0	Discrete	Phase 1 OPP	35.8	0.667 J	5.05	2.68	7.9	4.1	0.503 U
ROW005	SBS-ROW005-2.0	08/26/2015	1.5-2.0	Discrete	Phase 1 OPP	9.58	0.183 J	1.56	1.06	2.03	1.35	0.155 J
ROW008	SBS-ROW008-0.5	05/07/2015	0-0.5	Discrete	Phase 1 OPP	9.15	0.184 UJ	1.65 J	0.763 J	2.16 J	1.01 J	0.283 J
ROW010W	SS-ROW010W-0.5	11/02/2015	0-0.5	Discrete	Phase 1 OPP	17.2	0.314 J	2.53 J	1.81 J	6.04 J	3.54 J	0.392 J
ROW010W	SBS-ROW010W-1.5	11/02/2015	1.0-1.5	Discrete	Phase 1 OPP	0.847 J	0.106 J	0.163 J	0.185 J	0.448 J	0.209 J	0.0968 U
ROW011	SS-ROW011-0.5	03/22/2016	0-0.5	Discrete	Phase 1 OPP	28.1	0.658 J	2.95 J	4.14 J	8.91	7.25	0.473 J
ROW011	SBS-ROW011-1.5	03/22/2016	1.0-1.5	Discrete	Phase 1 OPP	9.34	1.42 J	1.71 J	2.57 J	7.12	4.84 J	0.828 J
ROW012	SS-ROW012-0.5	04/23/2015	0-0.5	Discrete	Phase 1 OPP	8.66	0.157 J	1.25	0.609 J	2.13	0.862 J	0.189 U
ROW013	SS-ROW013-0.5	06/08/2015	0-0.5	Discrete	Phase 1 OPP	188	4.57	23.4	36.3	60.3	58.6	1.49
ROW013	SBS-ROW013-1.0	06/08/2015	0.5-1.0	Discrete	Phase 1 OPP	142	5.01	16.3	37.4	66.7	63	2 U
ROW013	SBS-ROW013-2.0	09/01/2015	1.5-2.0	Discrete	Phase 1 OPP	6.92	0.159 J	0.671 J	1.08	2.12	1.15	0.109 U
ROW014	SS-ROW014-0.5	04/23/2015	0-0.5	Discrete	Phase 1 OPP	208	6.69	25.1	47.7	88.3	69.7	1.36
ROW014	SS-ROW014-1.0	04/23/2015	0.5-1.0	Discrete	Phase 1 OPP	42.4	1.3	4.54	8.48	17.8	12.7	0.217 U
ROW014	SBS-ROW014-2.0	08/26/2015	1.5-2.0	Discrete	Phase 1 OPP	6.41	0.174 J	0.707 J	1.33	2.13	1.58	0.109 U
ROW016	SS-ROW016-0.5	06/08/2015	0-0.5	Discrete	Phase 1 OPP	23.6	0.353 J	4.05	2.78	5.23	4.09	0.435
ROW016	SBS-ROW016-1.0	06/08/2015	0.5-1.0	Discrete	Phase 1 OPP	28.1	0.419 J	4.9 U	3.58	6.65	4.92	0.426 J
ROW016	SBS-ROW016-2.0	09/01/2015	1.5-2.0	Discrete	Phase 1 OPP	4.1	0.102 U	0.452 J	0.344 J	1.47	0.642 J	0.101 U
ROW018	SS-ROW018-0.5	06/08/2015	0-0.5	Discrete	Phase 1 OPP	20.4	0.216 J	3.29	1.31	2.71	1.54	0.396
ROW018	SBS-ROW018-1.0	06/08/2015	0.5-1.0	Discrete	Phase 1 OPP	11.3	0.103 U	1.62	0.776 J	1.61	0.918 J	0.249 J
ROW019	SS-ROW019-0.5	06/08/2015	0-0.5	Discrete	Phase 1 OPP	20.1	0.473 J	3.23	2.77	4.55	4.11	0.803
ROW019	SBS-ROW019-1.0	06/08/2015	0.5-1.0	Discrete	Phase 1 OPP	13.2	0.24 J	1.66	1.62	3.78	2.55	0.333 J
ROW019	SBS-ROW019-1.5	08/26/2015	1.0-1.5	Discrete	Phase 1 OPP	31.3	0.526 J	4.13	4.95	10.2	6.79	0.796
ROW019	SBS-ROW019-2.0	09/01/2015	1.5-2.0	Discrete	Phase 1 OPP	5.91	0.194 J	0.749 J	1.02	1.92	1.54	0.1 U
ROW022	SS-ROW022-0.5	06/08/2015	0-0.5	Discrete	Phase 1 OPP	20.1	0.278 J	2.98	1.79	3.71	2.76	0.43
ROW022	SBS-ROW022-1.0	06/08/2015	0.5-1.0	Discrete	Phase 1 OPP	24.3	0.311 J	3.54	2.34	5.08	3.57	0.352 J
ROW022	SBS-ROW022-1.5	08/26/2015	1.0-1.5	Discrete	Phase 1 OPP	6.42	0.119 J	1.11	0.648 J	2.68	1.4	0.193 U
ROW022W	SS-ROW022W-0.5	11/02/2015	0-0.5	Discrete	Phase 1 OPP	44.6	0.755 J	5.6 J	5.24 J	15.3	8.53 J	1.32 J
ROW022W	SBS-ROW022W-1.5	11/02/2015	1.0-1.5	Discrete	Phase 1 OPP	3.51	0.105 U	0.505 J	0.471 J	1.44	0.975 J	0.161 J
ROW023	SS-ROW023-0.5	06/08/2015	0-0.5	Discrete	Phase 1 OPP	42.5	0.439 J	6.08	2.34	6.75	3.09	0.484
ROW023	SBS-ROW023-1.0	06/08/2015	0.5-1.0	Discrete	Phase 1 OPP	37.5	0.41 J	6.75	2.81	6.76	3.74	0.466 J
ROW023	SBS-ROW023-1.5	09/01/2015	1.0-1.5	Discrete	Phase 1 OPP	8.04	0.136 J	1.02	0.617 J	1.95	0.95 J	0.106 U
ROW023	SBS-ROW023-2.0	09/01/2015	1.5-2.0	Discrete	Phase 1 OPP	2.36	0.106 U	0.315 J	0.149 J	0.543 J	0.264 J	0.106 U
ROW025	SS-ROW025-0.5	06/08/2015	0-0.5	Discrete	Phase 1 OPP	55.6	0.456 J	8.46	2.99	6.85	3.59	0.715
ROW025	SBS-ROW025-1.0	06/08/2015	0.5-1.0	Discrete	Phase 1 OPP	15.5	0.19 J	2.62	1.11	2.81	1.4	0.188 U
ROW025	SBS-ROW025-1.5	08/26/2015	1.0-1.5	Discrete	Phase 1 OPP	9.28	0.458 J	2.08	1.21	1.98	1.2	0.253
ROW026	SS-ROW026-0.5	05/21/2015	0-0.5	Discrete	Phase 1 OPP	13.1	0.22 J	2.59	1.42	2.1	1.88	0.494 J
ROW026	SBS-ROW026-1.0	05/21/2015	0.5-1.0	Discrete	Phase 1 OPP	23.3	0.284 J	3.5	2.43	4.12	3.09	0.566

**Table 3-3
ROW Soil Results
Former PWT Site
Ridgefield, Washington**



Location	Sample Name	Collection Date	Collection Depth (ft bgs)	Sample Type	Area	1,2,3,7,8,9-HxCDD (ng/kg)	1,2,3,7,8,9-HxCDF (ng/kg)	1,2,3,7,8-PeCDD (ng/kg)	1,2,3,7,8-PeCDF (ng/kg)	2,3,4,6,7,8-HxCDF (ng/kg)	2,3,4,7,8-PeCDF (ng/kg)	2,3,7,8-TCDD (ng/kg)
ROW026	SBS-ROW026-1.5	08/26/2015	1.0-1.5	Discrete	Phase 1 OPP	15.6	0.229 J	2.69	2.31	3.88	3.19	0.451
ROW026	SBS-ROW026-2.0	08/26/2015	1.5-2.0	Discrete	Phase 1 OPP	7.87	0.218 J	1.11	1.18	1.93	1.68	0.213
ROW029B	SS-ROW029B-0.5	06/08/2015	0-0.5	Discrete	Phase 1 OPP	43.2	0.366 J	6.05	2.39	6.46	3.45	0.573
ROW029B	SBS-ROW029B-1.0	06/08/2015	0.5-1.0	Discrete	Phase 1 OPP	21.7	0.268 J	3.69	1.66	3.46	2.45	0.342 J
ROW029B	SBS-ROW029B-1.5	08/26/2015	1.0-1.5	Discrete	Phase 1 OPP	9.61	0.132 J	1.57	0.786 J	2.28	1.15	0.206
ROW030	SS-ROW030-0.5	04/30/2015	0-0.5	Discrete	Phase 1 OPP	20.9	0.151 J	2.78	1.24	2.71	1.47	0.296
ROW030	SS-ROW030-1.0	04/30/2015	0.5-1.0	Discrete	Phase 1 OPP	7.98	0.275 J	1.67	0.703 J	1.19	0.934 J	0.158 J
ROW033W	SS-ROW033W-0.5	11/02/2015	0-0.5	Discrete	Phase 1 OPP	36.3	0.586 J	8.08 J	5.13 J	34.7	16.2	1.15 J
ROW033W	SBS-ROW033W	11/02/2015	1.0-1.5	Discrete	Phase 1 OPP	13.5	0.278 J	3.81	3.17	25.7	12	0.604
ROW036	SS-ROW036-0.5	04/23/2015	0-0.5	Discrete	Phase 1 OPP	15.5	0.22 U	3.88	0.84 J	2.46	3.96	0.913
ROW036	SS-ROW036-1.0	04/23/2015	0.5-1.0	Discrete	Phase 1 OPP	0.555 J	0.0983 UJ	0.183 J	0.146 U	0.27 J	0.205 J	0.114 U
ROWRRW	SS-ROWRRW-0.5	03/22/2016	0-0.5	Discrete	Phase 1 OPP	21.5	0.447 J	3.04 J	2.34 J	4.62 J	3.3 J	0.41 J
ROWRRW	SBS-ROWRRW-1.5	03/22/2016	1.0-1.5	Discrete	Phase 1 OPP	3.18 J	0.386 UJ	0.658 UJ	0.642 UJ	0.95 J	0.818 UJ	0.275 U
ROW-002N	ROW-002N-0.5	08/11/2016	0-0.5	Discrete	Phase 2 OPP	23.1	0.284 U	4.99	2.1 J	10.6	6.75	0.572 J
ROW010E	SS-ROW010E-0.5	11/02/2015	0-0.5	Discrete	Phase 2 OPP	16.3	0.512 J	3.17	3.08	8.94	5.85	1.66
ROW022E	SS-ROW022E-0.5	11/02/2015	0-0.5	Discrete	Phase 2 OPP	34.9	0.56 J	4.13	4.69	11.2	7.66	0.432
ROW022E	SS-ROW022E-0.5	11/02/2015	0-0.5	Discrete Dup	Phase 2 OPP	35.1	0.717 J	4.62	5.02	12.7	8.08	0.449
ROW029BS	SS-ROW029BS-0.5	11/02/2015	0-0.5	Discrete	Phase 2 OPP	33.8	0.409 J	4.78 J	2.6 J	7.11 J	3.81 J	1.31 J
ROW029BS	SBS-ROW029BS-1.5	11/02/2015	1.0-1.5	Discrete	Phase 2 OPP	1.69	0.124 J	0.271 J	0.261 J	0.371 J	0.276 J	0.304
ROW038S	SS-ROW038S-0.5	11/02/2015	0-0.5	Discrete	Phase 2 OPP	4.65 J	0.221 U	0.638 J	0.21 U	0.672 J	0.261 U	0.186 U
ROW-P2-001	ROW-P2-001-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	15.6	0.526 J	2.32 J	3.64 J	5.27	5.91	0.128 U
ROW-P2-002	ROW-P2-002-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	12.5	0.613 J	4.56 J	2.82 J	7.34	7.97	1.36
ROW-P2-002	ROW-P2-002-0.5-DUP	04/15/2016	0-0.5	Discrete Dup	Phase 2 OPP	12.1	0.553 J	4.44 J	2.74 J	7.37	7.65	1.33
ROW-P2-003	ROW-P2-003-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	35.5	0.958 J	4.59 J	6.72	10.9	11	0.614 J
ROW-P2-004	ROW-P2-004-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	9.64	0.368 J	1.5 J	1.83 J	2.43 J	1.92 J	0.235 J
ROW-P2-005	ROW-P2-005-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	32.8	1.01 J	4.38 J	6.35	10.6	9.81	0.306 U
ROW-P2-006	ROW-P2-006-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	14.4	0.334 J	2.36 J	1.97 J	3.91 J	4.05 J	0.339 J
ROW-P2-007	ROW-P2-007-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	8.05	0.129 J	0.99 J	0.686 J	1.95	1.31	0.311 U
ROW-P2-008	ROW-P2-008-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	50.1	0.533 J	8.03	4.23	14.8	7.24	0.712
ROW-P2-009	ROW-P2-009-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	7.82	0.27 J	7.75	2.5	26.1	18.2	0.855
ROW-P2-010	ROW-P2-010-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	2.89	0.136 J	0.391 J	0.424 J	0.721 J	0.5 J	0.105 U
ROW-P2-011A	ROW-P2-011A-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	122	3.68	12	29	47.9	47.8	0.614
ROW-P2-011B	ROW-P2-011B-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	65.1	1.94	8.77	14.6	26	25.9	0.815
ROW-P2-012	ROW-P2-012-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	8.36	0.183 J	1.48	1.06	2.01	1.55	0.421
ROW-P2-013	ROW-P2-013-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	3.52	0.14 U	0.506 J	0.33 U	0.654 J	0.405 J	0.11 U
ROW-P2-014	ROW-P2-014-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	6.1	0.248 J	1.04	0.871 J	1.69	1.23	0.177 J
ROW-P2-015	ROW-P2-015-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	8.88	0.126 J	1.44	0.83 J	1.77	1.2	0.156 U
ROW-P2-016	ROW-P2-016-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	223	13.2	32.2	135	74.4	107	2.12
ROW-P2-017	ROW-P2-017-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	46.6	0.959 J	5.51	9.67	17.6	15.7	0.38
ROW-P2-018	ROW-P2-018-0.5	04/20/2016	0-0.5	Discrete	Phase 2 OPP	6.32	1.27	1.41	0.783 J	1.75	1.35	0.405

**Table 3-3
ROW Soil Results
Former PWT Site
Ridgefield, Washington**



Location	Sample Name	Collection Date	Collection Depth (ft bgs)	Sample Type	Area	1,2,3,7,8,9-HxCDD (ng/kg)	1,2,3,7,8,9-HxCDF (ng/kg)	1,2,3,7,8-PeCDD (ng/kg)	1,2,3,7,8-PeCDF (ng/kg)	2,3,4,6,7,8-HxCDF (ng/kg)	2,3,4,7,8-PeCDF (ng/kg)	2,3,7,8-TCDD (ng/kg)
ROW-P2-019	ROW-P2-019-0.5	04/20/2016	0-0.5	Discrete	Phase 2 OPP	9.63	0.12 J	1.54	0.914 J	2.49	1.42	0.206
ROW-P2-020	ROW-P2-020-0.5	04/20/2016	0-0.5	Discrete	Phase 2 OPP	7.44	0.124 U	1.26	1.17	2.49	1.89	0.771
ROW-P2-021	ROW-P2-021-0.5	04/20/2016	0-0.5	Discrete	Phase 2 OPP	20.3	0.43 J	3.46	3.43	5.49	6.46	0.539
ROW-P2-022	ROW-P2-022-0.5	04/20/2016	0-0.5	Discrete	Phase 2 OPP	1.89	0.126 U	0.355 J	0.132 U	0.49 U	0.439 J	0.461
ROW-P2-033	ROW-P2-033-0.5	04/20/2016	0-0.5	Discrete	Phase 2 OPP	53.8	1.71	7.4	13.9	28.5	30.3	0.616
ROW-P2-034	ROW-P2-034-0.5	04/20/2016	0-0.5	Discrete	Phase 2 OPP	22.5	0.413 J	3.76	2.92	7.18	6.82	0.596
ROW078N	ROW-078N	11/22/2017	0-0.5	Discrete	Phase 3 OPP	37.8	6.18	9.97	3.45 J	18.3	18.2	0.922 J
ROW078NE	ROW-078NE	11/22/2017	0-0.5	Discrete	Phase 3 OPP	8.46	2.25 J	2.98 J	1.52 J	4.82 J	5.18	0.369 UJ
ROW078NW	ROW-078NW	11/22/2017	0-0.5	Discrete	Phase 3 OPP	16.6	2.21 J	4.75 J	1.66 J	5.68	3.81 J	1.87

**Table 3-3
ROW Soil Results
Former PWT Site
Ridgefield, Washington**



Location	Sample Name	Collection Date	Collection Depth (ft bgs)	Sample Type	Area	2,3,7,8-TCDF (ng/kg)	OCDD (ng/kg)	OCDF (ng/kg)	Total HpCDDs (ng/kg)	Total HpCDFs (ng/kg)	Total HxCDDs (ng/kg)	Total HxCDFs (ng/kg)
ROW001	SS-ROW001-0.5	05/04/2016	0-0.5	Discrete	Phase 1 OPP	3.24 U	3,660	135	1,170	243	244	271
ROW004	SS-ROW004-0.5	05/07/2015	0-0.5	Discrete	Phase 1 OPP	0.38 U	122	8.05 J	36.9	14.3	6.79	9.45
ROW005	SS-ROW005-0.5	06/08/2015	0-0.5	Discrete	Phase 1 OPP	1.84	8,630	257	2,380	519	330	382
ROW005	SBS-ROW005-1.0	06/08/2015	0.5-1.0	Discrete	Phase 1 OPP	1.6 U	6,600	210	2,100	474	294	308
ROW005	SBS-ROW005-2.0	08/26/2015	1.5-2.0	Discrete	Phase 1 OPP	0.48 J	1,590	82.1	517	138	79.7	95.4
ROW008	SBS-ROW008-0.5	05/07/2015	0-0.5	Discrete	Phase 1 OPP	0.32 U	1,980	117	577	159	80.2	94.4
ROW010W	SS-ROW010W-0.5	11/02/2015	0-0.5	Discrete	Phase 1 OPP	1.18 J	3,740	204	906	309	152	227
ROW010W	SBS-ROW010W-1.5	11/02/2015	1.0-1.5	Discrete	Phase 1 OPP	0.15 J	157	11.1	46.3	14.2	6.26	10.7
ROW011	SS-ROW011-0.5	03/22/2016	0-0.5	Discrete	Phase 1 OPP	2.69	7,300	219	1,960	375	235	352
ROW011	SBS-ROW011-1.5	03/22/2016	1.0-1.5	Discrete	Phase 1 OPP	1.11	2,410	60	598	114	74.7	218
ROW012	SS-ROW012-0.5	04/23/2015	0-0.5	Discrete	Phase 1 OPP	0.569 UJ	2,160	72.6	601	116	74.9	85.6
ROW013	SS-ROW013-0.5	06/08/2015	0-0.5	Discrete	Phase 1 OPP	9.5 U	50,400	1,080	14,900	3,070	1,640	2,940
ROW013	SBS-ROW013-1.0	06/08/2015	0.5-1.0	Discrete	Phase 1 OPP	11.5	38,300	531	11,800	2,870	1,330	2,180
ROW013	SBS-ROW013-2.0	09/01/2015	1.5-2.0	Discrete	Phase 1 OPP	0.38 J	1,520	49.6	449	107	59.2	96.5
ROW014	SS-ROW014-0.5	04/23/2015	0-0.5	Discrete	Phase 1 OPP	11.2	66,200	1,440	18,900	4,370	2,190	4,700
ROW014	SS-ROW014-1.0	04/23/2015	0.5-1.0	Discrete	Phase 1 OPP	1.97	15,300	262	4,080	897	418	915
ROW014	SBS-ROW014-2.0	08/26/2015	1.5-2.0	Discrete	Phase 1 OPP	0.24 U	1,730	39.2	482	110	57	111
ROW016	SS-ROW016-0.5	06/08/2015	0-0.5	Discrete	Phase 1 OPP	1.56	3,860	133	1,200	270	190	213
ROW016	SBS-ROW016-1.0	06/08/2015	0.5-1.0	Discrete	Phase 1 OPP	0.11 U	4,460	112	1,540	320	246	306
ROW016	SBS-ROW016-2.0	09/01/2015	1.5-2.0	Discrete	Phase 1 OPP	0.17 J	578	16.8	204	36.2	28.3	42.7
ROW018	SS-ROW018-0.5	06/08/2015	0-0.5	Discrete	Phase 1 OPP	0.87 J	2,910	199	916	251	146	115
ROW018	SBS-ROW018-1.0	06/08/2015	0.5-1.0	Discrete	Phase 1 OPP	1.1 U	1,650	104	526	168	85.2	61.8
ROW019	SS-ROW019-0.5	06/08/2015	0-0.5	Discrete	Phase 1 OPP	1.21	3,540	87.4	1,080	229	144	192
ROW019	SBS-ROW019-1.0	06/08/2015	0.5-1.0	Discrete	Phase 1 OPP	0.64 J	2,400	46.3	735	178	103	163
ROW019	SBS-ROW019-1.5	08/26/2015	1.0-1.5	Discrete	Phase 1 OPP	1.31	8,410	160	2,190	493	277	488
ROW019	SBS-ROW019-2.0	09/01/2015	1.5-2.0	Discrete	Phase 1 OPP	0.28 J	1,660	28.4	391	96.9	50.5	95
ROW022	SS-ROW022-0.5	06/08/2015	0-0.5	Discrete	Phase 1 OPP	1.18	3,220	193	987	237	142	156
ROW022	SBS-ROW022-1.0	06/08/2015	0.5-1.0	Discrete	Phase 1 OPP	2.05	3,000	173	1,040	320	179	196
ROW022	SBS-ROW022-1.5	08/26/2015	1.0-1.5	Discrete	Phase 1 OPP	0.67 J	1,170	61.6	329	77	55.1	87.4
ROW022W	SS-ROW022W-0.5	11/02/2015	0-0.5	Discrete	Phase 1 OPP	1.66 J	13,300	920	2,900	1,010	418	617
ROW022W	SBS-ROW022W-1.5	11/02/2015	1.0-1.5	Discrete	Phase 1 OPP	0.21 U	1,130	73.3	265	78.6	31.5	52.4
ROW023	SS-ROW023-0.5	06/08/2015	0-0.5	Discrete	Phase 1 OPP	1.11	6,530	783	1,970	946	277	285
ROW023	SBS-ROW023-1.0	06/08/2015	0.5-1.0	Discrete	Phase 1 OPP	1.7 U	5,150	469	1,740	852	278	331
ROW023	SBS-ROW023-1.5	09/01/2015	1.0-1.5	Discrete	Phase 1 OPP	0.18 U	1,880	346	411	365	57.4	113
ROW023	SBS-ROW023-2.0	09/01/2015	1.5-2.0	Discrete	Phase 1 OPP	0.15 U	462	81.8	115	76.9	15.2	23.8
ROW025	SS-ROW025-0.5	06/08/2015	0-0.5	Discrete	Phase 1 OPP	1.73	8,360	385	2,390	512	373	285
ROW025	SBS-ROW025-1.0	06/08/2015	0.5-1.0	Discrete	Phase 1 OPP	0.787 J	1,930	87.7	666	174	118	97.4
ROW025	SBS-ROW025-1.5	08/26/2015	1.0-1.5	Discrete	Phase 1 OPP	0.59 J	1,250	58.6	384	95.2	64.9	59.4
ROW026	SS-ROW026-0.5	05/21/2015	0-0.5	Discrete	Phase 1 OPP	0.937 J	2,470	77.8	749	175	106	103
ROW026	SBS-ROW026-1.0	05/21/2015	0.5-1.0	Discrete	Phase 1 OPP	1.52	3,190	102	1,100	309	181	201

**Table 3-3
ROW Soil Results
Former PWT Site
Ridgefield, Washington**



Location	Sample Name	Collection Date	Collection Depth (ft bgs)	Sample Type	Area	2,3,7,8-TCDF (ng/kg)	OCDD (ng/kg)	OCDF (ng/kg)	Total HpCDDs (ng/kg)	Total HpCDFs (ng/kg)	Total HxCDDs (ng/kg)	Total HxCDFs (ng/kg)
ROW026	SBS-ROW026-1.5	08/26/2015	1.0-1.5	Discrete	Phase 1 OPP	1.16	2,640	89.4	845	223	131	179
ROW026	SBS-ROW026-2.0	08/26/2015	1.5-2.0	Discrete	Phase 1 OPP	0.62 J	1,610	43.7	389	107	60.7	82.5
ROW029B	SS-ROW029B-0.5	06/08/2015	0-0.5	Discrete	Phase 1 OPP	1.34	5,360	311	1,810	424	303	209
ROW029B	SBS-ROW029B-1.0	06/08/2015	0.5-1.0	Discrete	Phase 1 OPP	1.32	2,540	127	995	250	174	145
ROW029B	SBS-ROW029B-1.5	08/26/2015	1.0-1.5	Discrete	Phase 1 OPP	0.61 J	2,010	144	579	161	80.9	92.8
ROW030	SS-ROW030-0.5	04/30/2015	0-0.5	Discrete	Phase 1 OPP	0.495	976	85.7	702	182	122	96.8
ROW030	SS-ROW030-1.0	04/30/2015	0.5-1.0	Discrete	Phase 1 OPP	0.34 U	924	32.4	322	60.1	50.9	42
ROW033W	SS-ROW033W-0.5	11/02/2015	0-0.5	Discrete	Phase 1 OPP	3.27	7,780	637	1,720	763	335	1,040
ROW033W	SBS-ROW033W	11/02/2015	1.0-1.5	Discrete	Phase 1 OPP	1.82	2,880	202	849	304	154	780
ROW036	SS-ROW036-0.5	04/23/2015	0-0.5	Discrete	Phase 1 OPP	2.11 U	2,520	223	630	212	109	87.2
ROW036	SS-ROW036-1.0	04/23/2015	0.5-1.0	Discrete	Phase 1 OPP	0.24 U	99.2	7.13	24.1	7.55	4.13	5.3
ROWRRW	SS-ROWRRW-0.5	03/22/2016	0-0.5	Discrete	Phase 1 OPP	1.9 U	4,530	143	1,240	242	167	195
ROWRRW	SBS-ROWRRW-1.5	03/22/2016	1.0-1.5	Discrete	Phase 1 OPP	0.449 J	553	22.3	149	32.3	22.1	26.4
ROW-002N	ROW-002N-0.5	08/11/2016	0-0.5	Discrete	Phase 2 OPP	4.21	2,710	78	802	191	169	330
ROW010E	SS-ROW010E-0.5	11/02/2015	0-0.5	Discrete	Phase 2 OPP	1.42	2,580	134	974	290	150	294
ROW022E	SS-ROW022E-0.5	11/02/2015	0-0.5	Discrete	Phase 2 OPP	1.42	3,690	324	2,060	624	310	459
ROW022E	SS-ROW022E-0.5	11/02/2015	0-0.5	Discrete Dup	Phase 2 OPP	1.35	3,210	325	2,760	597	319	483
ROW029BS	SS-ROW029BS-0.5	11/02/2015	0-0.5	Discrete	Phase 2 OPP	1.82 J	7,820	467	1,610	580	242	281
ROW029BS	SBS-ROW029BS-1.5	11/02/2015	1.0-1.5	Discrete	Phase 2 OPP	0.19 J	365	20.9	94.8	24.6	11.9	12.5
ROW038S	SS-ROW038S-0.5	11/02/2015	0-0.5	Discrete	Phase 2 OPP	0.302 J	803	45.1	190	51.7	30.1	23.7
ROW-P2-001	ROW-P2-001-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	0.829 J	5,280	99.8	1,150	295	137	283
ROW-P2-002	ROW-P2-002-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	3.63	3,400	109	822	195	137	221
ROW-P2-002	ROW-P2-002-0.5-DUP	04/15/2016	0-0.5	Discrete Dup	Phase 2 OPP	3.15	3,450	126	776	194	133	215
ROW-P2-003	ROW-P2-003-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	2.74	10,500	197	2,660	564	334	507
ROW-P2-004	ROW-P2-004-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	0.7 J	5,400	88.6	962	177	101	131
ROW-P2-005	ROW-P2-005-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	2.56	9,270	157	2,350	510	303	464
ROW-P2-006	ROW-P2-006-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	0.834 J	3,460	137	829	233	125	181
ROW-P2-007	ROW-P2-007-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	0.72 J	2,860	316	588	210	68	83.1
ROW-P2-008	ROW-P2-008-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	2.11	19,700	2,440	3,680	2,550	385	876
ROW-P2-009	ROW-P2-009-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	3.54	467	23.2	133	93	118	535
ROW-P2-010	ROW-P2-010-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	0.3 U	810	19.5	174	37.2	33.4	33.1
ROW-P2-011A	ROW-P2-011A-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	9.01	29,400	714	8,920	2,180	1,110	1,560
ROW-P2-011B	ROW-P2-011B-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	6.23	16,500	370	4,920	1,130	579	839
ROW-P2-012	ROW-P2-012-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	0.5 J	1,570	55.2	498	89.1	73.4	73.1
ROW-P2-013	ROW-P2-013-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	0.25 J	720	32.4	184	26.4	27.9	22.9
ROW-P2-014	ROW-P2-014-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	0.54 J	1,310	51.8	413	79.6	53.7	54.4
ROW-P2-015	ROW-P2-015-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	0.537 J	1,860 J	93.2	531	120	79.1	73.5
ROW-P2-016	ROW-P2-016-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	56.7	14,100	1,570	4,280	5,620	2,260	5,990
ROW-P2-017	ROW-P2-017-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	3.98	14,100	283	4,280	756	451	785
ROW-P2-018	ROW-P2-018-0.5	04/20/2016	0-0.5	Discrete	Phase 2 OPP	1.84	1,210	71.8	350	114	50.9	40

**Table 3-3
ROW Soil Results
Former PWT Site
Ridgefield, Washington**



Location	Sample Name	Collection Date	Collection Depth (ft bgs)	Sample Type	Area	2,3,7,8-TCDF (ng/kg)	OCDD (ng/kg)	OCDF (ng/kg)	Total HpCDDs (ng/kg)	Total HpCDFs (ng/kg)	Total HxCDDs (ng/kg)	Total HxCDFs (ng/kg)
ROW-P2-019	ROW-P2-019-0.5	04/20/2016	0-0.5	Discrete	Phase 2 OPP	0.97 J	2,190	258	597	257	82.7	103
ROW-P2-020	ROW-P2-020-0.5	04/20/2016	0-0.5	Discrete	Phase 2 OPP	1.25	3,710	528 J	947	404	85.7	165
ROW-P2-021	ROW-P2-021-0.5	04/20/2016	0-0.5	Discrete	Phase 2 OPP	1.63	5,520	373	1,430	589	175	352
ROW-P2-022	ROW-P2-022-0.5	04/20/2016	0-0.5	Discrete	Phase 2 OPP	0.35 U	844	33.5	160	37.4	16.5	23
ROW-P2-033	ROW-P2-033-0.5	04/20/2016	0-0.5	Discrete	Phase 2 OPP	9.56	19,300 J	433	4,640	1,400	609	1,610
ROW-P2-034	ROW-P2-034-0.5	04/20/2016	0-0.5	Discrete	Phase 2 OPP	2.52	4,820	124	1,380	330	186	326
ROW078N	ROW-078N	11/22/2017	0-0.5	Discrete	Phase 3 OPP	2.41	6,720 J	315	1,720	428	368	338 J
ROW078NE	ROW-078NE	11/22/2017	0-0.5	Discrete	Phase 3 OPP	1.65	2,280	69.1	487	123	91 J	106 J
ROW078NW	ROW-078NW	11/22/2017	0-0.5	Discrete	Phase 3 OPP	1.17	2,800	67	797	152	174	128 J

**Table 3-3
ROW Soil Results
Former PWT Site
Ridgefield, Washington**



Location	Sample Name	Collection Date	Collection Depth (ft bgs)	Sample Type	Area	Total PeCDDs (ng/kg)	Total PeCDFs (ng/kg)	Total TCDDs (ng/kg)	Total TCDFs (ng/kg)	Total Organic Carbon (mg/kg)
ROW001	SS-ROW001-0.5	05/04/2016	0-0.5	Discrete	Phase 1 OPP	36 J	96.8 J	3.61	11.9 J	16,000
ROW004	SS-ROW004-0.5	05/07/2015	0-0.5	Discrete	Phase 1 OPP	0.636 J	3.07 J	0.263 J	0.792 J	4,000
ROW005	SS-ROW005-0.5	06/08/2015	0-0.5	Discrete	Phase 1 OPP	31.6	56.7	4.92	13	15,000
ROW005	SBS-ROW005-1.0	06/08/2015	0.5-1.0	Discrete	Phase 1 OPP	24.2	55.4	0.583 U	6.54	17,000
ROW005	SBS-ROW005-2.0	08/26/2015	1.5-2.0	Discrete	Phase 1 OPP	8.03	19.1	0.639	6.56	9,900
ROW008	SBS-ROW008-0.5	05/07/2015	0-0.5	Discrete	Phase 1 OPP	9.11	29.8	1.52	6.64	16,000
ROW010W	SS-ROW010W-0.5	11/02/2015	0-0.5	Discrete	Phase 1 OPP	15.5	114	4.97	30	21,000
ROW010W	SBS-ROW010W-1.5	11/02/2015	1.0-1.5	Discrete	Phase 1 OPP	0.505 J	7.29	0.245	2.3	8,400
ROW011	SS-ROW011-0.5	03/22/2016	0-0.5	Discrete	Phase 1 OPP	15.1	199	5.62	43.5	18,000
ROW011	SBS-ROW011-1.5	03/22/2016	1.0-1.5	Discrete	Phase 1 OPP	5.57	182	1.86	30.3	9,600
ROW012	SS-ROW012-0.5	04/23/2015	0-0.5	Discrete	Phase 1 OPP	4.94	24.7	1.16	6.44	15,000
ROW013	SS-ROW013-0.5	06/08/2015	0-0.5	Discrete	Phase 1 OPP	112	462	13.4	57.4	20,000
ROW013	SBS-ROW013-1.0	06/08/2015	0.5-1.0	Discrete	Phase 1 OPP	48	423	2 U	15.3	15,000
ROW013	SBS-ROW013-2.0	09/01/2015	1.5-2.0	Discrete	Phase 1 OPP	2.29	13.6	0.109 U	2.04	6,800
ROW014	SS-ROW014-0.5	04/23/2015	0-0.5	Discrete	Phase 1 OPP	104	1,100	8.54	64.8	19,000
ROW014	SS-ROW014-1.0	04/23/2015	0.5-1.0	Discrete	Phase 1 OPP	20	241	1.64	18.7	11,000
ROW014	SBS-ROW014-2.0	08/26/2015	1.5-2.0	Discrete	Phase 1 OPP	2.43	13.6	0.109 U	1.2	8,400
ROW016	SS-ROW016-0.5	06/08/2015	0-0.5	Discrete	Phase 1 OPP	21.8	43.9	1.87	5.38	20,000
ROW016	SBS-ROW016-1.0	06/08/2015	0.5-1.0	Discrete	Phase 1 OPP	25	134	5.22	20.6	18,000
ROW016	SBS-ROW016-2.0	09/01/2015	1.5-2.0	Discrete	Phase 1 OPP	2.25	12.3	0.101 U	2.22	3,800
ROW018	SS-ROW018-0.5	06/08/2015	0-0.5	Discrete	Phase 1 OPP	18.5	18.7	2.49	6.25	19,000
ROW018	SBS-ROW018-1.0	06/08/2015	0.5-1.0	Discrete	Phase 1 OPP	8.45	22.3	2.71	9.88	18,000
ROW019	SS-ROW019-0.5	06/08/2015	0-0.5	Discrete	Phase 1 OPP	12.4	30.8	1.28	2.41	14,000
ROW019	SBS-ROW019-1.0	06/08/2015	0.5-1.0	Discrete	Phase 1 OPP	6.57	48.2	0.892 J	4.26	10,000
ROW019	SBS-ROW019-1.5	08/26/2015	1.0-1.5	Discrete	Phase 1 OPP	17.3	70.3	2.98	13.4	9,100
ROW019	SBS-ROW019-2.0	09/01/2015	1.5-2.0	Discrete	Phase 1 OPP	2.52	15.5	0.14 J	2.63	4,000
ROW022	SS-ROW022-0.5	06/08/2015	0-0.5	Discrete	Phase 1 OPP	15.4	29.8	3.04	12.3	21,000
ROW022	SBS-ROW022-1.0	06/08/2015	0.5-1.0	Discrete	Phase 1 OPP	18.9	95.9	3.38	27.1	16,000
ROW022	SBS-ROW022-1.5	08/26/2015	1.0-1.5	Discrete	Phase 1 OPP	7.03	32.1	1.94	12.9	14,000
ROW022W	SS-ROW022W-0.5	11/02/2015	0-0.5	Discrete	Phase 1 OPP	35.6	288	9.47	62.9	16,000
ROW022W	SBS-ROW022W-1.5	11/02/2015	1.0-1.5	Discrete	Phase 1 OPP	2.7	31.8	1.07	8.05	12,000
ROW023	SS-ROW023-0.5	06/08/2015	0-0.5	Discrete	Phase 1 OPP	26.1	23.7	2.76	5.01	24,000
ROW023	SBS-ROW023-1.0	06/08/2015	0.5-1.0	Discrete	Phase 1 OPP	30.9	66.1	4.08	15	16,000
ROW023	SBS-ROW023-1.5	09/01/2015	1.0-1.5	Discrete	Phase 1 OPP	4.41	12.3	1.41	3.72	10,000
ROW023	SBS-ROW023-2.0	09/01/2015	1.5-2.0	Discrete	Phase 1 OPP	1.26	2.94	0.215	0.779	11,000
ROW025	SS-ROW025-0.5	06/08/2015	0-0.5	Discrete	Phase 1 OPP	41.7	47.8	6.55	17.9	21,000
ROW025	SBS-ROW025-1.0	06/08/2015	0.5-1.0	Discrete	Phase 1 OPP	12.5	41	2.19	12	13,000
ROW025	SBS-ROW025-1.5	08/26/2015	1.0-1.5	Discrete	Phase 1 OPP	8.27	10.1	1.16	3.99	9,200
ROW026	SS-ROW026-0.5	05/21/2015	0-0.5	Discrete	Phase 1 OPP	15.4	20.4	4.57	8.44	20,000
ROW026	SBS-ROW026-1.0	05/21/2015	0.5-1.0	Discrete	Phase 1 OPP	19.4	37	5.07	12.8	12,000

**Table 3-3
ROW Soil Results
Former PWT Site
Ridgefield, Washington**



Location	Sample Name	Collection Date	Collection Depth (ft bgs)	Sample Type	Area	Total PeCDDs (ng/kg)	Total PeCDFs (ng/kg)	Total TCDDs (ng/kg)	Total TCDFs (ng/kg)	Total Organic Carbon (mg/kg)
ROW026	SBS-ROW026-1.5	08/26/2015	1.0-1.5	Discrete	Phase 1 OPP	17.5	29.2	3.85	12.6	9,600
ROW026	SBS-ROW026-2.0	08/26/2015	1.5-2.0	Discrete	Phase 1 OPP	6.98	16.5	1.83	5.34	7,900
ROW029B	SS-ROW029B-0.5	06/08/2015	0-0.5	Discrete	Phase 1 OPP	31.5	37.7	4.35	10.9	16,000
ROW029B	SBS-ROW029B-1.0	06/08/2015	0.5-1.0	Discrete	Phase 1 OPP	15.3	60.6	3.73	14.9	16,000
ROW029B	SBS-ROW029B-1.5	08/26/2015	1.0-1.5	Discrete	Phase 1 OPP	9.66	19.2	1.02	4.84	13,000
ROW030	SS-ROW030-0.5	04/30/2015	0-0.5	Discrete	Phase 1 OPP	13.8	15	2.4	4.79	15,000
ROW030	SS-ROW030-1.0	04/30/2015	0.5-1.0	Discrete	Phase 1 OPP	6.13	11.6	1.04	2.29	9,400
ROW033W	SS-ROW033W-0.5	11/02/2015	0-0.5	Discrete	Phase 1 OPP	59.3	1,270	18.5	373	22,000
ROW033W	SBS-ROW033W	11/02/2015	1.0-1.5	Discrete	Phase 1 OPP	38.4	1,010	12.7	277	14,000
ROW036	SS-ROW036-0.5	04/23/2015	0-0.5	Discrete	Phase 1 OPP	22.2	39.7	3.9	60.3	12,000
ROW036	SS-ROW036-1.0	04/23/2015	0.5-1.0	Discrete	Phase 1 OPP	0.796 J	3.47	0.944	3.68	11,000
ROWRRW	SS-ROWRRW-0.5	03/22/2016	0-0.5	Discrete	Phase 1 OPP	13.2	91.2	2.24	20.7	14,000
ROWRRW	SBS-ROWRRW-1.5	03/22/2016	1.0-1.5	Discrete	Phase 1 OPP	1.51 J	12.7	0.158 J	2.63	9,000
ROW-002N	ROW-002N-0.5	08/11/2016	0-0.5	Discrete	Phase 2 OPP	29.3	368	7.91	95.3	29,000
ROW010E	SS-ROW010E-0.5	11/02/2015	0-0.5	Discrete	Phase 2 OPP	20.3	248	7.33	66.8	19,000
ROW022E	SS-ROW022E-0.5	11/02/2015	0-0.5	Discrete	Phase 2 OPP	21.9	220	5.28	38.1	14,000
ROW022E	SS-ROW022E-0.5	11/02/2015	0-0.5	Discrete Dup	Phase 2 OPP	18.1	199	5.41	28.7	15,000
ROW029BS	SS-ROW029BS-0.5	11/02/2015	0-0.5	Discrete	Phase 2 OPP	21.5	84.1	6.54	18.2	15,000
ROW029BS	SBS-ROW029BS-1.5	11/02/2015	1.0-1.5	Discrete	Phase 2 OPP	0.753 J	4.86	0.663	1.46	9,200
ROW038S	SS-ROW038S-0.5	11/02/2015	0-0.5	Discrete	Phase 2 OPP	1.76 J	5.69 J	0.253 J	1.07 J	17,000
ROW-P2-001	ROW-P2-001-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	7.29	92.1	0.439 J	6.03	4,500
ROW-P2-002	ROW-P2-002-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	37.6	130	11.4	63.8	16,000
ROW-P2-002	ROW-P2-002-0.5-DUP	04/15/2016	0-0.5	Discrete Dup	Phase 2 OPP	37.1	111	10.2	54.4	19,000
ROW-P2-003	ROW-P2-003-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	23.4	132	6.11	32.8	16,000
ROW-P2-004	ROW-P2-004-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	5.29	33.6	0.992 J	4	8,400
ROW-P2-005	ROW-P2-005-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	17.1	102	1.46	13.7	15,000
ROW-P2-006	ROW-P2-006-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	12.7	78.2	2.72	15.5	21,000
ROW-P2-007	ROW-P2-007-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	5.79	17	0.896	6.69	22,000
ROW-P2-008	ROW-P2-008-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	32	110	2.77	28	26,000
ROW-P2-009	ROW-P2-009-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	56.8	368	10.1	133	16,000
ROW-P2-010	ROW-P2-010-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	2.7	5.84	0.162 J	1.76	9,200
ROW-P2-011A	ROW-P2-011A-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	40.1	234	3.59	26.9	21,000
ROW-P2-011B	ROW-P2-011B-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	30.8	139	4.93	25.1	15,000
ROW-P2-012	ROW-P2-012-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	8.26	17.8	0.964	4.84	13,000
ROW-P2-013	ROW-P2-013-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	2.12	4.06	0.34	1.08	12,000
ROW-P2-014	ROW-P2-014-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	4.85	11.6	0.522	2.94	17,000
ROW-P2-015	ROW-P2-015-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	7.83	14.6	0.973	4.96	20,000
ROW-P2-016	ROW-P2-016-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	107	988	6.04	110	19,000
ROW-P2-017	ROW-P2-017-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	24.5	141	2.62	25.9	16,000
ROW-P2-018	ROW-P2-018-0.5	04/20/2016	0-0.5	Discrete	Phase 2 OPP	7.31	8.17	1.99	8.62	19,000

**Table 3-3
ROW Soil Results
Former PWT Site
Ridgefield, Washington**



Location	Sample Name	Collection Date	Collection Depth (ft bgs)	Sample Type	Area	Total PeCDDs (ng/kg)	Total PeCDFs (ng/kg)	Total TCDDs (ng/kg)	Total TCDFs (ng/kg)	Total Organic Carbon (mg/kg)
ROW-P2-019	ROW-P2-019-0.5	04/20/2016	0-0.5	Discrete	Phase 2 OPP	9.54	17.3	1.45	8.13	28,000
ROW-P2-020	ROW-P2-020-0.5	04/20/2016	0-0.5	Discrete	Phase 2 OPP	9.29	48.4	11.7 J	15.1	35,000
ROW-P2-021	ROW-P2-021-0.5	04/20/2016	0-0.5	Discrete	Phase 2 OPP	16.6	123	5.19	19.5	35,000
ROW-P2-022	ROW-P2-022-0.5	04/20/2016	0-0.5	Discrete	Phase 2 OPP	1.25	18.1	0.461	4.88	16,000
ROW-P2-033	ROW-P2-033-0.5	04/20/2016	0-0.5	Discrete	Phase 2 OPP	46.4	888	14.2	163	23,000
ROW-P2-034	ROW-P2-034-0.5	04/20/2016	0-0.5	Discrete	Phase 2 OPP	21.9	214	6.7	54.3	25,000
ROW078N	ROW-078N	11/22/2017	0-0.5	Discrete	Phase 3 OPP	64.6	248 J	14 J	60.5	29,000
ROW078NE	ROW-078NE	11/22/2017	0-0.5	Discrete	Phase 3 OPP	18.7 J	55.3 J	7.91 U	26.9 J	29,000
ROW078NW	ROW-078NW	11/22/2017	0-0.5	Discrete	Phase 3 OPP	34 J	48.9 J	13.5 J	16.8	30,000

**Table 3-3
ROW Soil Results
Former PWT Site
Ridgefield, Washington**



Notes

Bold indicates values that exceed the MTCA Method B soil cleanup level of 13.0 ng/kg.

bgs = below ground surface.

Dup = duplicate sample.

J = result is estimated.

mg/kg = milligrams per kilogram.

ng/kg = nanograms per kilogram.

OPP = off-property portion.

PWT = Pacific Wood Treating Co.

ROW = right-of-way.

TEQ = toxicity equivalent.

U = result is non-detect.

UJ = result is non-detect with an estimated detection limit.

^(a)Dioxin/furan TEQ calculated as the sum of each congener concentration multiplied by the corresponding mammalian TEF value. Detected results qualified as estimated are included in the calculation. Non-detect values are multiplied by one-half.

References

⁽¹⁾Ecology. 2024. *Cleanup Levels and Risk Calculation (CLARC) table*. Washington State Department of Ecology, Toxics Cleanup Program. February.

⁽²⁾Ecology. 2007. *Evaluating the Toxicity and Assessing the Carcinogenic Risk of Environmental Mixtures Using Toxicity Equivalency Factors*. Supporting Material for CLARC. Washington State Department of Ecology.

Appendix A

Waste Designation



MAUL
FOSTER
ALONGI



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
2108 Grand Boulevard ▪ Vancouver, Washington 98661-4622 ▪ (360) 690-7171

January 30, 2013

Mr. Brent Grening
Executive Director
Port of Ridgefield
Post Office Box 55
Ridgefield, WA 98642

Re: Approval of January 29, 2013, *Upland Off-Property Dioxin Waste Designation Former Pacific Wood Treating Site, Ridgefield Washington* Memorandum, prepared by Maul, Foster, Alongi, Inc.
Ecology Facility Site Identification #1019

Dear Mr. Grening:

This letter provides the Port of Ridgefield (Port) with the Washington State Department of Ecology's (Ecology) written approval of the above-referenced memorandum. Approval of project documentation by this agency is required by Agreed Order Number 01TCPSR-3119 executed by Ecology and the Port of Ridgefield for cleanup efforts at the former Pacific Wood Treating (PWT) Corporation facility and surrounding environs.

If you have any questions or care to discuss items in this letter, please contact me by telephone at (360) 690-4795 or by e-mail at cran461@ecy.wa.gov.

Sincerely,

Craig Rankine, RG, LHG
Site Manager/Hydrogeologist
Toxic Cleanup Program
Vancouver Field Office

lc/CR

cc: Laurie Olin, Port of Ridgefield, Ridgefield, WA
Steven Taylor and Alan Hughes Maul Foster & Alongi Inc., Vancouver, WA
Madi Novak, Maul Foster & Alongi Inc., Portland, OR
Cindy Donnerberg, CH2MHill, Portland, OR
James DeMay, Ecology Southwest Regional Office, Lacey, WA

Ecology Southwest Regional Office Records Center, Lacey, WA

Via e-mail



MEMORANDUM

To: Craig Rankine Date: December 20, 2012
From: Madi Novak *Madi Novak* Project: 9003.01.39
Steve Taylor, PE *Steve P. Taylor*
RE: Upland Off-Property Dioxin Waste Designation
Former Pacific Wood Treating Site, Ridgefield, Washington
Agreed Order No. 01TCPSR-3119

On behalf of the Port of Ridgefield, (Port), Maul Foster & Alongi, Inc. (MFA) has prepared this memorandum to determine the waste designation for soils containing dibenzo-p-dioxins and furans (collectively referred to as dioxins) off-property of the Lake River Industrial Site (LRIS) in Ridgefield, Washington. The LRIS is the location of the former Pacific Wood Treating Corporation (PWT) facility where historical operations primarily involved pressure-treating wood products with oil-based treatment solutions containing creosote, pentachlorophenol (PCP), and water-based mixtures of copper, chromium, arsenic, and/or zinc.

Soils that are located off property of the LRIS in the adjoining residential neighborhood and McCuddy's Marina parking area (i.e., off-property area) contain dioxins. However, the source of the dioxins is not readily apparent. Sources of dioxins at the PWT facility may have included spent formulations from wood preserving processes, combustion of waste by PWT and a previous shingle mill, combustion of fuels at the facility, and by trucks and trains traveling adjacent to the facility and to the offsite properties.

The U.S. Environmental Protection Agency (USEPA) has prepared a document clarifying RCRA policy for remediation waste¹ which provides the following on page 5 of the document.

Where a facility owner/operator makes a good faith effort to determine if a material is a listed hazardous waste but cannot make such a determination because documentation regarding a source of contamination, contaminant, or waste is unavailable or inconclusive, EPA has stated that one may assume the source, contaminant or waste is not listed hazardous waste and, therefore, provided the material in question does not

¹ USEPA, 1998. Management of Remediation Waste under RCRA. Office of Solid Waste and Emergency Response. Ref. EPA530-F-98-026. October 14.

exhibit a characteristic of hazardous waste, RCRA requirements do not apply... This approach was confirmed in the final NCP² preamble. See, 53 FR 51444, December 21, 1988 for proposed NCP preamble discussion; 55 FR 8758, March 13, 1990 for final NCP preamble discussion.

There are no historical records of a release off-property from PWT's operation that would result in the determination that the off-property soils are a listed hazardous waste, specifically the F032, F034 and F035 listings that are assigned to *wastewater, process residuals, preservative drippage, and spent formulations from wood preserving processes that used chlorophenolic formulations, creosote or arsenic based treating solutions respectively*. These waste codes have been applied to soils on the property because of known releases on the property.

The soil containing dioxins that is located offsite of the former PWT facility (i.e., LRIS) is not designated as hazardous waste under the guidelines provided by USEPA. The operation that generated the dioxin compounds cannot be determined because there are several potential sources (including the wood treating operations) that could have led to contamination of soils in the offsite areas. Given this information, the F032, F034 and F035 listed hazardous waste codes are not applicable to the soil that could be generated during any future remedial action in the off-property area.

The soil sample results have also been reviewed for possible designation as a characteristic hazardous waste or a Washington state-only dangerous waste Per WAC 173-303-100 Dangerous Waste Criteria. The concentration of dioxins, polycyclic aromatic hydrocarbons (PAHs) and halogenated organic compounds (HOCs) were reviewed in accordance with the WAC 173-303-100 requirements as follows:

Toxic Dangerous Wastes - The equivalent concentration for the toxic constituents (metals, PAHs, HOCs, and dioxins) is below the 0.001 percent threshold in WAC 173-303-100(5), and the material does not designate as a state-only toxic waste.

Persistent Dangerous Wastes - PAHs, HOCs, and dioxins are below the 0.01 percent threshold for characterizing a material as a persistent dangerous waste as described in WAC 173-303-100(6).

Based on the above review, the soil to be generated during the off-property remedial action would not designate as a Washington state-only dangerous waste.

² National Contingency Plan

Appendix B

Data Validation Memorandum



MAUL
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Data Validation Memorandum

Project No. M9003.01.061 | May 3, 2024 | Port of Ridgefield

Maul Foster & Alongi, Inc. (MFA), conducted an independent Stage 2A review of the quality of analytical results for soil samples collected on March 13, 2024, from the off-property portion of the former Pacific Wood Treating Co. site in Ridgefield, Washington.

Samples were submitted to Apex Laboratories, LLC (Apex) and Enthalpy Analytical, LLC, El Dorado Hills (Enthalpy) for analysis. MFA reviewed Apex report number A4C1342 and Enthalpy report number 2403149. Apex did not perform any analyses; samples submitted to Apex were subcontracted to Enthalpy for dioxin and furan analysis, and these results are appended to the Apex laboratory reports. The analyses performed and the samples analyzed are listed in the following tables.

Analysis	Reference
Dioxins and furans	EPA 8290A ^(a)

Notes

EPA = U.S. Environmental Protection Agency.

^(a)Percent moisture measurement for dry-weight calculation is included in EPA Method 8290A.

Samples Analyzed
Report A4C1342/2403149
AOI043-2.0-2.5
AOI043-2.5-3.0
BLANK-240313

Data Validation Procedures

Analytical results were evaluated according to applicable sections of U.S. Environmental Protection Agency (EPA) guidelines for data review (EPA 2014, EPA 2020) and appropriate laboratory- and method-specific guidelines (Apex 2023, Enthalpy 2023, EPA 1986).

Based on the data quality assurance/quality control review described herein, the data, with the appropriate final data qualifiers assigned, are considered acceptable for their intended use. Final data qualifiers represent qualifiers originating from the laboratory and accepted by the reviewer, and data qualifiers assigned by the reviewer during validation.

Final data qualifiers:

- J = result is estimated.
- U = result is non-detect at the estimated detection limit (EDL).
- UJ = result is non-detect with an estimated laboratory detection limit.
- UJK = result is non-detect at the estimated maximum potential concentration (EMPC) and qualified as estimated.
- UK = result is non-detect at the EMPC.

Dioxins and Furans

Second Column Confirmation

Positive identification of 2,3,7,8-TCDF cannot be achieved using typical EPA Method 8290A analytical columns; therefore, analysis using a second column is required to confirm and qualify any detections above the method reporting limit (MRL). Enthalpy noted in the case narrative provided with report 2403149 that EPA Method 8290A analysis of all samples was performed with a column that resolves 2,3,7,8-TCDD and 2,3,7,8-TCDF. 2,3,7,8-TCDF was not detected in any project samples.

Estimated Maximum Potential Concentration Results

In accordance with EPA Region 10 guidance for data validation of dioxins and furans (EPA 2014) and EPA national functional guidelines for high-resolution Superfund methods data review (EPA 2020), the reviewer qualified EPA Method 8290A results that were identified by Enthalpy as EMPCs. The reviewer confirmed that, where Enthalpy provided a lower result concentration along with an EMPC result, the EMPC is considered the final result value.

Where Enthalpy flagged non-detect congener or total homolog results below MRLs as EMPCs, the reviewer qualified the results with UJK. The reviewer qualified congener results above MRLs that were flagged as EMPCs with UK.

Where Enthalpy flagged detected total homolog results as EMPCs, and all associated congeners were either EMPCs or non-detect, the reviewer qualified the total homolog result as non-detect at the reported concentration. Final qualification for total homolog results above MRLs is UK. Final qualification for total homolog results below MRLs is UJK.

Where Enthalpy flagged total homolog results as EMPCs and one or more associated congeners were detected without an EMPC flag, the reviewer accepted the laboratory qualification. Final qualification for total homolog results above MRLs is K. Final qualification for total homolog results below MRLs is JK.

Final data qualifiers for EMPC results are shown in the following table. Some EMPC results were also qualified based on holding time or laboratory control sample (LCS) recovery. Final qualification is shown.

Report	Sample	Analyte	Original Result (pg/g)	Qualified Result (pg/g)
2403149	AOI043-2.0-2.5	1,2,3,7,8-PeCDD	0.954 K	0.954 UJK ^(a)
		1,2,3,4,7,8,9-HpCDF	0.733 K	0.733 UJK ^(a)
		Total PeCDD	11.4 K	11.4 UJK ^(a)
		Total TCDF	17.2 K	17.2 UJK ^(b)
		Total PeCDF	50.9 K	50.9 JK ^(b)
		Total HxCDF	50.3 K	50.3 JK ^(b)
		Total HpCDF	24.2 K	24.2 JK ^(a)
	AOI043-2.5-3.0	2,3,4,7,8-PeCDF	0.562 K	0.562 UJK
		1,2,3,6,7,8-HxCDF	0.200 K	0.200 UJK
		Total TCDD	0.156 K	0.156 UJK
		Total PeCDD	1.61 K	1.61 UJK
Total HxCDD		3.89 K	3.89 JK	

Report	Sample	Analyte	Original Result (pg/g)	Qualified Result (pg/g)
		Total TCDF	1.78 K	1.78 UK
		Total PeCDF	6.92 K	6.92 UK
		Total HxCDF	6.76 K	6.76 JK

Notes

JK = result is qualified as estimated and an estimated maximum potential concentration.

K = result is an estimated maximum potential concentration.

pg/g = picograms per gram.

UJK = result is non-detect at the estimated maximum potential concentration and qualified as estimated.

UK = result is non-detect at the estimated maximum potential concentration.

^(a)Result also qualified based on receipt by Enthalpy in a broken container.

^(b)Result also qualified based on internal standard recovery. Final qualification is shown.

Sample Conditions

Sample Custody

According to the chain-of-custody (COC) form provided with report 2403149, a sample relinquishment time was not recorded by Apex. The reviewer notified the laboratory. No qualification was required.

The remaining sample custody was appropriately documented on the COC form accompanying the report(s).

The reviewer confirmed that the gap in custody on the COC form accompanying report 2403149 is due to shipment via a third-party service.

Holding Times

Extractions and analyses were performed within the recommended holding times.

Preservation and Sample Storage

According to the COC/label reconciliation report provided with report 2403149, sample AOI043-2.0-2.5 was received by Enthalpy in a broken glass sample container. At the MFA project manager's request, the sample was recovered and transferred to a new amber glass container. The reviewer qualified all associated sample results with J applied to detected results and UJ applied to non-detect results. Results already flagged by Enthalpy with J due to detection below the MRL were not additionally qualified but are presented for a complete record.

Report	Sample	Analysis	Original Results	Qualification
2403149	AOI043-2.0-2.5	EPA 8290A	Detected	J ^(a)
				JK ^(b)
			Non-detect	UJ ^(c)
				UJK ^(b)

Notes

EPA = U.S. Environmental Protection Agency.

J = result is estimated.

JK = result is qualified as estimated and an estimated maximum potential concentration.

K = result is an estimated maximum potential concentration.

UJ = result is non-detect at the estimated detection limit and qualified as estimated.

Report	Sample	Analysis	Original Results	Qualification
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UJK = result is non-detect at the estimated maximum potential concentration and qualified as estimated.

(a)Some results were already flagged with J due to detection below the method reporting limit; these results did not require additional qualification.

(b)Results also qualified based on estimated maximum potential concentration and/or internal standard recovery. Final qualification is shown.

(c)Results also qualified based on internal standard recovery. Final qualification is shown.

The remaining samples were preserved and stored appropriately.

Reporting Limits

Enthalpy reported EPA Method 8290A non-detect results to EDLs. EDLs are sample-specific detection limits calculated for non-detect results. Method detection limits (MDLs) were also provided for all EPA Method 8290A dioxin and furan congener results. MRLs were not included in any reports due to reporting system limitations. No sample results were reported from dilution analyses.

Enthalpy qualified results detected between the MDL and MRL with J. Because MRLs were not included in the reports, the reviewer confirmed that results flagged by Enthalpy with J were detected below MRLs by reviewing the electronic data deliverable file that accompanied the report. These qualifiers were accepted by the reviewer.

Blank Results

Method Blanks

Laboratory method blanks are used to evaluate whether laboratory contamination was introduced during sample preparation and analysis. Laboratory method blank analyses were performed at the required frequencies, in accordance with laboratory- and method-specific requirements.

All laboratory method blank results were non-detect to EDLs.

Equipment Rinsate Blanks

Equipment rinsate blanks are used to evaluate the adequacy of the field equipment decontamination process when decontaminated sampling equipment is used to collect samples.

An equipment rinsate blank (BLANK-240313) was submitted for EPA Method 8290A analysis. According to report 2403149, the EPA Method 8290A batch B24C271 equipment rinsate blank had an EMPC detection of total PeCDD, at 1.91 picograms per liter (pg/L). The associated sample results also had EMPC detections of total PeCDD, which the reviewer qualified in the EMPC Results section above. No additional qualification was required.

All remaining equipment rinsate blank results were non-detect to EDLs.

Laboratory Control Sample and Laboratory Control Sample Duplicate Results

Laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) results are used to evaluate laboratory precision and accuracy. No LCSDs were reported, in accordance with the method. The LCSs were prepared and analyzed at the required frequency. Enthalpy reported LCSs as “ongoing precision and recovery” samples.

All LCS results were within acceptance limits for percent recovery.

Laboratory Duplicate Results

Laboratory duplicate results are used to evaluate laboratory precision and sample homogeneity. Laboratory duplicate samples are optional for EPA Method 8290A and were not reported by Enthalpy.

Matrix Spike and Matrix Spike Duplicate Results

Matrix spike (MS) and matrix spike duplicate (MSD) results are used to evaluate laboratory precision, accuracy, and the effect of the sample matrix on sample preparation and target analyte recovery. MS and MSD are not required for EPA Method 8290A and were not reported by Enthalpy.

Labeled Analog Results

All EPA Method 8290A project samples and associated batch quality control samples were spiked with carbon-13 (C13) labeled analogs as internal standards to quantify the relative response of analytes in each sample. Samples were also spiked with labeled cleanup standards to evaluate the efficiency of extract cleanup.

According to report 2403149, the EPA Method 8290A labeled internal standards 13C- 2,3,7,8-TCDD, 13C-1,2,3,4,7,8-HxCDD, 13C-2,3,7,8-TCDF, 13C-1,2,3,7,8-PeCDF, 13C-2,3,4,7,8-PeCDF, 13C-1,2,3,6,7,8-HxCDF, and 13C-2,3,4,6,7,8-HxCDF results for sample AOI043-2.0-2.5 were below the lower percent recovery acceptance limit of 40 percent, ranging from 32.9 percent and 39.9 percent. Sample AOI043-2.0-2.5 was received by Enthalpy in a broken sample container, as discussed in the Preservation and Sample Storage section above. Additionally, some results were qualified by the reviewer based on EMPCs, as discussed in the Estimated Maximum Potential Concentration Results section above. Final qualified results are shown in the following table:

Report	Sample	Analyte	Original Result (pg/g)	Qualified Result (pg/g)
2403149	AOI043-2.0-2.5	2,3,7,8-TCDD	0.385 U	0.385 UJ
		1,2,3,4,7,8-HxCDD	1.51 U	1.51 UJ
		2,3,7,8-TCDF	0.545 U	0.545 UJ
		1,2,3,7,8-PeCDF	0.678 J	0.678 J
		2,3,4,7,8-PeCDF	3.88	3.88 J
		1,2,3,6,7,8-HxCDF	1.99 J	1.99 J
		2,3,4,6,7,8-HxCDF	2.17 J	2.17 J
		Total TCDD	1.41	1.41 J
		Total HxCDD	32.0	32.0 J
		Total TCDF	17.2 K	17.2 UJK ^(a)
		Total PeCDF	50.9 K	50.9 JK ^(a)
		Total HxCDF	50.3 K	50.3 JK ^(a)

Notes

JK = result is qualified as estimated and an estimated maximum potential concentration.

K = result is an estimated maximum potential concentration.

pg/g = picograms per gram.

U = result is non-detect at the laboratory estimated detection limit.

UJ = result is non-detect at the estimated detection limit and qualified as estimated.

UJK = result is non-detect at the estimated maximum potential concentration and qualified as estimated.

^(a)Result also qualified based on estimated maximum potential concentration. Final qualification is shown.

All remaining labeled standard recoveries were within acceptance limits.

Field Duplicate Results

Field duplicate samples measure both field and laboratory precision. Field duplicate samples were not submitted for analysis.

Data Package

The data package was reviewed for transcription errors, omissions, and anomalies.

As noted on the COC/label reconciliation report provided with report 2403149, sample names were changed at the MFA project manager's request after samples were received by both laboratories. Sample name A01-043-2.0-2.5 was changed to A01043-2.0-2.5 and sample name A01-043-2.5-3.0 was changed to A01043-2.5-3.0.

No additional issues were found.

References

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Enthalpy. 2023. *Quality Manual*. Rev. 33. Enthalpy Analytical, LLC: El Dorado Hills, CA. February 20.

EPA. 1986. *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*. EPA publication SW-846. 3rd ed. U.S. Environmental Protection Agency. Final updates I (1993), II (1995), IIA (1994), IIB (1995), III (1997), IIIA (1999), IIIB (2005), IV (2008), V (2015), VI phase I (2017), VI phase II (2018), VI phase III (2019), VII phase I (2019), and VII phase II (2020).

EPA. 2014. *R10 Data Validation and Review Guidelines for Polychlorinated Dibenzo-p-dioxin and Polychlorinated Dibenzofuran Data (PCDD/PCDF) Using Method 1613B and SW846 Method 8290A*. EPA-910-R-14-003. U.S. Environmental Protection Agency, Office of Environmental Assessment. May.

EPA. 2020. *National Functional Guidelines for High Resolution Superfund Methods Data Review*. EPA 542-R-20-007. U.S. Environmental Protection Agency, Office of Superfund Remediation and Technology Innovation. November.

Appendix C

Applicable or Relevant and Appropriate Laws and Regulations



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1 INTRODUCTION

Washington Administrative Code (WAC) 173-340-710 states that cleanup actions conducted under the Model Toxics Control Act (MTCA) shall comply with applicable state and federal laws. This WAC section also addresses relevant and appropriate requirements, substantive (as opposed to procedural) requirements, and local government permits and approvals. This appendix summarizes the analysis completed to ensure conformance with WAC 173-340 710.

1.1 EXEMPTIONS FOR REMEDIAL ACTIONS

MTCA exempts persons conducting a remedial action at a facility, under a consent decree, order, or agreed order, from the procedural requirements of Chapters 70.94 (Air), 70.95 (Solid Waste), 70.105 (Hazardous Waste), 75.20 (Hydraulic Permit), 90.48 (Water Quality), and 90.58 (Shorelands) of the Revised Code of Washington (RCW), and the procedural requirements of any laws requiring or authorizing local government permits or approvals for the remedial action. This exemption does not apply to independent actions.

The Washington State Department of Ecology (Ecology) is required to ensure compliance with the substantive provisions of Chapters 70.94, 70.95, 70.105, 75.20, 90.48, and 90.58 RCW, and the substantive provisions for laws requiring or authorizing local government permits or approvals. Ecology makes the final decision regarding which substantive provisions are applicable. Under policy and procedure directive 130B, Ecology describes how compliance will be assured, and these exemptions will be implemented.

The remedial action will be conducted in accordance with an amended order or consent decree. Therefore, an evaluation of the allowed exemptions to the laws, regulations, and rules will be conducted during the design phase. The remedial action will be developed to ensure conformance with the substantive provisions of these laws, regulations, and rules.

2 SUMMARY OF GENERALLY APPLICABLE OR RELEVANT AND APPROPRIATE FEDERAL LAWS AND REGULATIONS

Remediation at the off-property portion (OPP) of the Port site will be subject to the variety of federal laws and regulations that govern site cleanup. The applicable or relevant and appropriate requirements (ARARs) are discussed below.

2.1 Clean Water Act

The Federal Water Pollution Control Act (FWPCA) Amendments of 1972, commonly referred to as the Clean Water Act (CWA), set forth a number of provisions that require the development of regulations to protect the nation's waters. Section 402 of the CWA requires the development of comprehensive programs for preventing, reducing, or eliminating pollution in the nation's waterways. National Pollutant Discharge Elimination System (NPDES) requirements are specified in Section 402. This program has been delegated to the State of Washington (see Section 3.4).

The objective of the CWA (33 U.S. Code [USC] 1251-1376 and 40 Code of Federal Regulations [CFR] 129 and 131) is to restore and maintain the chemical, physical, and biological integrity of the nation's waters. Sections 303 and 304 of the CWA require the U.S. Environmental Protection Agency (USEPA) to issue ambient surface water quality criteria for the protection of aquatic life and human health. The federal water quality criteria (FWQC), as specified in 40 CFR 131, are non-enforceable guidelines to be used by states to set water quality standards for surface water. FWQC, based on chronic and acute effects to aquatic life, have been developed for 120 priority toxic pollutants and 45 non-priority pollutants for marine waters and freshwater.

Effect on Design:

During construction, water will be directed through erosion- and sediment-control features to meet any water quality standards. There should be no releases of water to the surrounding waterways associated with the upland off-property work. Any water discharged to Carty Lake or Lake River will be required to meet the FWQC. The State of Washington has been delegated as the authority to implement the CWA and has rules and regulations corresponding to all of those stated in the CWA. Therefore, for the Port, any discharges to surface water will be managed under the state program.

2.2 Migratory Bird Treaty Act

The federal Migratory Bird Treaty Act (MBTA) of 1918 makes it unlawful to kill or harass migratory birds by any means unless permitted by regulations. Furthermore, the MBTA requires that identified ecosystems of special importance to migratory birds be protected against pollution, detrimental alterations, and other environmental degradations.

Effect on Design:

Implementing the remedial action in conformance with MTCA will protect wildlife, including migratory birds. Consequently, no additional actions are needed to conform to the MBTA.

2.3 The Safe Drinking Water Act

The Safe Drinking Water Act (SDWA) was initially passed by Congress in 1974 and then amended in 1986. The SDWA establishes maximum contaminant levels (MCLs) and maximum contaminant level goals (MCLGs) for the protection of the nation's public water systems. The USEPA has established MCLs in 40 CFR Part 141 as the maximum permissible concentrations of specific

contaminants in water that is delivered to any user of a public water system. While non-enforceable, MCLGs represent the maximum level beyond which persons drinking the water may experience adverse effects.

Under the SDWA amendments, the USEPA is required, every three years, to develop a list of contaminants that must be regulated in the form of MCLs or MCLGs. Those regulations must be finalized within a year of its proposal. In addition, the USEPA identifies contaminants that are under consideration for listing as MCLs, as well as contaminants that are under consideration for modification of the MCL concentration.

The State of Washington has authorization from the USEPA to administer and enforce this act. Although the state has developed and continues to develop state-specific MCLs and MCLGs, it incorporates the federal standards by reference.

Effect on Design:

The OPP remedial action will have no effect on groundwater or any other water source used as drinking water.

2.4 Natural Resource Damages

The Natural Resource Damage provisions of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the Oil Pollution Act of 1990, and the CWA allow natural-resource trustees to assess damages for losses arising from injury to public natural resources caused by the release of oil or hazardous substances. The 43 CFR 11.62 provides the definitions of what constitutes an injury to a natural resource, particularly the definitions of injury to surface-water resources, groundwater resources, air resources, geologic resources, and biological resources. The definition of injury either must be met, or will likely be met, for natural resource damages to be included for a given facility or property.

Once natural resource damages have been established by federal, state, or Native American Tribe trustees, the responsible party must take actions to restore the damaged resource. These actions can either take the form of cash payment to a trustee, or the responsible party can undertake its own restoration projects, or both.

Effect on Design:

Consistent with MTCA, the remedial design will establish means and methods to ensure that the remedial action minimizes short-term risks during implementation. Consequently, natural resource damages caused by remedial action implementation will be avoided.

2.5 National Pretreatment Standards for Discharges to a Publicly Owned Sewer System

In general, the discharge of wastewater to publicly owned treatment works is considered an off-site activity. Requirements of the National Pretreatment Program include general and specific discharge prohibitions (40 CFR 403).

Effect on Design:

There will be no discharge to a publicly owned sewer system as part of the remedial action; therefore, this requirement is not applicable.

2.6 Identification and Listing of Hazardous Waste and Standards for Generators

The Solid Waste Disposal Act (42 USC 6921 Subtitle C) incorporated under the federal Resource Conservation and Recovery Act (RCRA, 40 CFR § 260 through 266) contains requirements for “cradle to grave” management of materials that meet the RCRA definition of hazardous waste. These requirements may apply to waste generated during a remedial action.

RCRA defines hazardous waste as either waste specifically listed in 40 CFR § 261 Subpart D or waste exhibiting one of four hazardous characteristics: ignitability, corrosivity, reactivity, or toxicity, as determined by the toxicity characteristic leaching procedure (TCLP). Requirements to determine whether waste being generated is hazardous, whether by sampling and analysis or by process knowledge, are listed in 40 CFR § 262.11.

Effect on Design:

The source of the material cannot be determined; therefore, under the guidelines provided by the USEPA, the dioxin-contaminated soil is not designated as hazardous waste, and this requirement is not applicable.

2.7 Treatment, Storage, and Disposal Facility Standards

The Solid Waste Disposal Act (42 USC 6921 Subtitle C) incorporated under RCRA (40 CFR § 264) provides design standards for treatment, storage, and disposal (TSD) facilities. The TSD requirements for hazardous waste are normally associated with facilities applying for, or having received, a RCRA permit.

Effect on Design:

No treatment of the material is associated with the remedial action. Material will be disposed of off-site at a Subtitle D landfill facility with an existing permit. This requirement is not applicable.

2.8 Land-Disposal Restrictions

LDRs for RCRA wastes characterized as toxic (40 CFR § 268) require that the waste be treated to specified concentrations before placement in a land-based unit. LDRs would apply to wastes removed from the site that exceed treatment standards for waste codes or that fail a TCLP analysis.

Effect on Design:

No waste characterized as toxic under RCRA is known to be present on site; this requirement is not applicable.

2.9 U.S. Department of Transportation Hazardous Materials Regulations

The U.S. Department of Transportation has published regulations, including requirements regarding communications and emergency response, shipping, and packaging (40 CFR 171 through 180), that govern the transportation of hazardous materials to or from the site.

The provisions of 40 CFR § 263 establish minimum standards that apply to persons transporting hazardous waste by air or water.

Effect on Design:

The remedial action does not involve the off-site transportation of hazardous waste; this requirement is not applicable.

2.10 National Ambient Air Quality Standards Attainment Area

The USEPA has established national ambient air quality standards (NAAQS) for a variety of potentially airborne substances known as criteria pollutants. NAAQS are ARARs for any conditions at a site that may result in emissions to the air of any listed criteria pollutant. Criteria pollutants include carbon monoxide, nitrogen dioxide, ozone, lead, particulates smaller than 10 micrometers, and sulfur dioxide.

Effect on Design:

The selected remedial alternative involves soil handling and excavation. The air emissions generated by handling soil at the site are subject to applicable air-quality standards to control or prevent the emission of air contaminants. Based on the contaminants present at the site, the applicable criteria pollutant would be particulate matter (dust).

2.11 Occupational Safety and Health Administration

Federal Occupational Safety and Health Administration (OSHA) regulations pertaining to hazardous waste sites are addressed under 29 CFR 1910.120, the Hazardous Waste Operations and Emergency

Response Standard. This standard applies to cleanup and corrective actions, as well as to operations involving hazardous waste, that are conducted at a permitted TSD facility, unless the employer can demonstrate that the operations do not involve employee exposure or the reasonable possibility of employee exposure to safety or health hazards.

Effect on Design:

All work will be performed under a site health and safety plan in conformance with applicable federal and state OSHA regulations.

2.12 Cultural Resources

The federal Antiquities Act (1906) laid out penalties for the unauthorized excavation of archaeological sites, granted the president the authority to designate national monuments, and authorized the managers of federal lands to grant permits for examinations of archaeological resources. The law granted the government the authority not only to declare landmarks on federal lands but also to receive “relinquished” segments of private land. Permits for “examination, excavation, and gathering...of objects of an antiquity” are to be granted by the secretaries of the interior, agriculture, and army only to organizations conducting work to expand the knowledge of those objects and only so that they may be displayed in public museums 16 USC 431-433).

The 1966 National Historical Preservation Act (NHPA) states the importance of “historic heritage” to the nation, and spells out in general terms the federal government’s intentions to protect and administer cultural resources. Section 101 directs the secretary of the interior to establish the National Register of Historic Places (NRHP); to set rules and guidelines relating to nominations; to appoint state historic preservation officers and establish state preservation programs; to assist tribes in historic preservation and in designating tribal historic preservation officers; and to make traditional cultural properties eligible for listing. Section 106 has had a large impact on, and is central to, resource management. Section 106 requires that federal agencies that have any indirect or direct jurisdiction over undertakings that involve federal funds or federal licensing take into account the effect the undertaking will have on a resource that is listed, or that is potentially eligible for listing, on the NRHP. Agencies are required to allow the Advisory Council on Historic Preservation (ACHP) time to comment on the proposed undertakings. 36 CFR provides regulations regarding parks, forests, and public property; 36 CFR 60.4 outlines criteria used to evaluate the eligibility of a property for listing on the NRHP. Section 110 of the law makes it the specific responsibility of federal agencies to implement historic preservation plans, list eligible properties, appoint preservation officers, and generally comply with the NHPA for properties under the agencies’ management. In other sections the law generally mandates federal agencies to protect, list on the NRHP, manage, and identify properties, and to assist and consult with other agencies and private groups on resource management. In Title II it establishes the ACHP and empowers it to implement NHPA regulations.

The 1978 American Indian Religious Freedom Act made it the policy of the U.S. government and federal agencies to “...protect and preserve for American Indians their inherent right of freedom to believe, express, and exercise the traditional religions....” This protection is centered on religious practice but encompasses and recognizes the importance of place and objects. The act requires

federal agencies to consult with traditional religious leaders on potential impacts to rights and practices (42 USC 1996).

The 1979 Archaeological Resources Protection Act (ARPA) defines archaeological resources and stipulates that the act applies to resources more than 100 years old; furthermore, it strengthens the permit process for work on these resources on federal and Indian lands. Permits granted under this law for work that may disturb archaeological resources are subject to review by tribes “which may consider the site as having religious or cultural importance” 16 USC 470cc(c)). The law grants the secretary of the interior authority to develop regulations regarding the exchange and curation of excavated materials and encourages the coordination of efforts between federal agencies and private individuals with archaeological collections. 43 CFR 7.9 outlines permit requirements, including an agreement about the final disposition of collected artifacts. It also criminalizes the removal of resources without a permit, specifies criminal and civil penalties for doing so, and exempts the disclosure of the location of archaeological resources from the public record (16 USC 470aa-470mm). 32 CFR 229 provides the regulations, definitions, and standards for implementation of ARPA.

The 1990 Native American Graves Protection and Repatriation Act deals with the disposition of indigenous tribal cultural items recovered on tribal or federal lands. It defines and addresses human remains, funerary goods, sacred objects, and objects of cultural patrimony, which are referred to as cultural items, and specifies the return of those objects to lineal descendants of the individual or tribe on whose land the items were recovered. The act further outlines the process by which permits are granted (under the ARPA framework) for excavation of described cultural items.

36 CFR 79 (Curation of Federally Owned and Administered Archeological Collections) was codified in 1990 to “...establish definitions, standards, procedures and guidelines to be followed by Federal agencies to preserve collections of prehistoric and historic material remains, and associated records...” as stipulated in the Antiquities Act, the Reservoir Salvage Act, the NHPA, and ARPA (36 CFR 79.1). This complicated set of regulations lays out many guidelines on the care and management of existing and future collections of archaeological material.

State-funded capital construction projects, with no federal funding or permits, must comply with the Governor's Executive Order 05-05 (GEO 05-05). GEO 05-05 requires a similar cultural resources review process to section 106.

Effect on Design:

Systematic archaeological surveys have been conducted to determine if archaeological resources are present at the OPP. The remedial action will be conducted consistent with a cultural resources monitoring and inadvertent discovery plan to address any archaeological discoveries made during the proposed action.

3 SUMMARY OF GENERALLY APPLICABLE OR RELEVANT AND APPROPRIATE WASHINGTON STATE LAWS AND REGULATIONS

The following state laws, regulations, and local requirements were determined to be ARARs.

3.1 Model Toxics Control Act

In Washington State, MTCA governs the investigation and cleanup of contaminated sites (Chapter 70.105D RCW). A contaminant is defined by MTCA 173-340-200 as any hazardous substance that does not occur naturally or that occurs at concentrations greater than natural levels.

MTCA became effective in March 1989 and was enacted through a voter-initiative process. The MTCA cleanup regulation, cited under Chapter 173 340 WAC, was amended in February 2001. MTCA contains provisions controlling site cleanup activities, including site discovery, priority, listing, investigation, and cleanup; liability provisions; administrative options for remedial actions, payment of costs, and funding; public participation; cleanup standards; and other general provisions. The law regulates the cleanup of sites contaminated with CERCLA hazardous substances, all state and federal RCRA hazardous and dangerous wastes, and petroleum products.

Effect on Design:

All elements of the remedial design and remedial action will comply with MTCA standards.

3.2 Water Quality Standards for Surface Waters and Ground Waters of the State

In Washington, water quality standards for surface waters of the state are promulgated under Chapter 173-201A WAC. The purpose of this chapter is to establish water quality standards for surface waters of Washington State that are consistent with public health and related public enjoyment, and with the propagation and protection of fish, shellfish, and wildlife, pursuant to the provisions of Chapter 90.48 RCW. The criteria listed in Chapter 173-201A WAC for surface water quality provide protective numbers for both freshwater and marine aquatic life regarding both acute and chronic exposure to toxic substances.

Water quality standards for groundwater are also promulgated under Chapter 173-200 WAC. This chapter implements the FWPCA and Chapters 90.48 and 90.54 of the RCW, as well as the federal Water Resources Act of 1971. Chapter 173-200 WAC applies to all groundwaters of the state that occur in a saturated zone, stratum beneath the land surface, or below a surface-water body. The water quality standards listed in Chapter 173-200 WAC apply to cleanup actions conducted under MTCA that involve potable groundwater.

Effect on Design:

No water will be generated during construction. Stormwater will be directed through erosion and sediment control best management practices to meet the water quality standards. In addition, state water quality standards are considered screening criteria.

3.3 Washington Dangerous Waste Regulations

Washington regulations identify RCRA F-listed and K-listed waste as dangerous waste (WAC 173-303-9904). Designated dangerous waste may be treated, stored, or disposed of at a permitted TSD facility.

Effect on Design:

Material generated on site will not be considered dangerous waste; this requirement is not applicable.

3.4 National Pollutant Discharge Elimination System Stormwater Permit Program

Chapter 173-220 WAC establishes a state permit program, applicable to the discharge of pollutants and other wastes and materials to the surface waters of the state, operating under state law as part of the NPDES created by Section 402 of the FWPCA. Permits issued under this chapter are intended to satisfy the requirements for discharge permits issued under both Section 402(b) of the FWPCA and Chapter 90.48 RCW.

Effect on Design

NPDES construction stormwater permits are required for construction sites of one acre or larger. The selected remedial action alternative will have a construction footprint greater than one acre. As the NPDES program is a federal program administered by the state, the MTCA exemption for state and local permits does not apply. The project will obtain coverage under the state's NPDES construction stormwater general permit for the proposed work. As the project involves the disturbance of soil with known contamination, the notice of intent for coverage under the NPDES general permit will include a description of this contamination. A pre-application meeting will be held to initiate permit coverage in 2025.

3.5 Shoreline Management Act

The state Shoreline Management Act (SMA) (Chapter 173-22 WAC) regulates any action within 200 feet of the ordinary high-water mark of a shoreline. Shorelines in towns and cities are regulated by shoreline master programs (Chapter 173-26 WAC) adopted by local municipalities.

Effect on Design:

The proposed locations for remedial actions are outside the shoreline's jurisdiction; this requirement is not applicable.

3.6 Air Quality Standards

Chapters 173-400, -460, and -470 WAC establish provisions for general regulation of air pollution sources, ambient air quality standards, and acceptable levels for particulate matter, and stipulate requirements for new sources of toxic air pollutant emissions. These regulations may be applicable to cleanup actions at the site; for example, to control particulate emissions generated during soil excavation activities, or emissions resulting from air stripping or other groundwater treatment technologies. These standards are typically administered and enforced by the local clean air agency, which in this case would be the Southwest Clean Air Agency. Chapter 173-401 operating permits may be required for fugitive emissions from new sources. Emission standards for volatile organic compounds are set in Chapter 173-490.

Effect on Design:

The remedial work includes soil handling. During soil-excavation activities, it may be necessary to implement engineering controls such as soil wetting to control particulate emissions. Air testing may be required to show that emissions meet the substantive requirements of applicable air quality permits and rules. If results illustrate that substantive requirements have not been met, the design will require modification.

3.7 Noise Regulations

Maximum environmental noise levels have been determined and are contained in Chapter 173-60 WAC. Approved procedures for measurement of environmental noise are contained in Chapter 173-58 WAC.

Effect on Design:

During design, expected noise levels will be estimated and compared to the limitations established in 173-60 WAC. The need to adjust the approach to meet these requirements will be determined. For example, the noise level regulations may limit the hours of operation for some parts of the remedial action. Construction equipment may be required to be outfitted with additional noise-minimizing equipment (larger or additional mufflers, etc.).

3.8 State Environmental Policy Act

The State of Washington administers and enforces a program equivalent to the federal National Environmental Policy Act. The State Environmental Policy Act (SEPA), contained in Chapter 43.21C RCW, provides the framework for agencies to consider the environmental consequences of a proposal before taking action. It also gives agencies the ability to condition or deny a proposal because of identified likely significant adverse impacts. The act is implemented through the SEPA Rules and Procedures, Chapters 197-11 and 173-802 WAC, respectively.

SEPA review is a comprehensive assessment of potential environmental, economic, and cultural impacts from a specific development project or a proposed policy, plan, or program. The SEPA

review process requires the preparation of an environmental checklist, which may be achieved by review of the environmental impacts and proposal of mitigation measures. The completed checklist helps to identify potential environmental impacts associated with the proposed action. Following a threshold determination, the lead agency will issue either a Determination of Non-Significance that will allow the action or permitting process to continue, or a Determination of Significance that will require that an environmental impact statement (EIS) be prepared before agency action can be taken. Typically, one checklist or EIS is required for a project, although it may require modification or application of numerous permits by federal, state, or local agencies.

Effect on Design:

SEPA review will be conducted for the project design. The Port or Ecology can act as the lead agency for SEPA review. The Port has prepared a SEPA checklist to be reviewed during Ecology's evaluation of the project design.

3.9 Washington Industrial Safety and Health Administration

Washington Industrial Safety and Health Administration (WISHA) regulations pertaining to hazardous waste sites are addressed under WAC 296-843, Hazardous Waste Operations. This standard applies to cleanup and corrective actions at MTCA-regulated sites.

Effect on Design:

All work will be performed under a site health and safety plan in conformance with the applicable WISHA regulations.

4 LOCAL REQUIREMENTS

4.1 Shoreline Master Program

A cleanup action or "substantial development" conducted along any shoreline of statewide significance in the city of Ridgefield is regulated under the Shoreline Master Program (Chapter 18.820 of the Ridgefield Municipal Code [RMC]). A Substantial Development Permit (SDP) is required for such an action. In 2012, the City of Ridgefield adopted an updated Shoreline Master Program.

Effect on Design:

The proposed locations for remedial actions are outside the shoreline jurisdiction.

4.2 City of Ridgefield Critical Areas Ordinance

The City of Ridgefield Critical Areas Ordinance designates and regulates projects that may impact ecologically sensitive areas, including wetlands, fish and wildlife habitat conservation areas, or geophysical hazards such as geologically hazardous areas and frequently flooded areas (RMC 18.280.120).

Effect on Design:

The off-property remedial action area is part of a category 2 critical aquifer recharge area. The off-property remedial action area is also identified as having a low to moderate liquefaction susceptibility, as indicated on the Alternative Liquefaction Susceptibility Map of Clark County, Washington. Relative to these items, the remedial design will meet the substantive requirements of the critical areas ordinance.

4.3 Street Tree Program

Work adjacent to street trees is regulated under Section 12.12 of the RMC. The RMC requires a permit for excavation within the drip line of any street tree and for the removal of any street tree. As a condition to the granting of a street tree permit, the director may require the applicant to relocate or replace trees. If a tree is interfering with the use of any utility that has been granted a franchise by the city of Ridgefield, it is required that notice of removal and/or excavation within the dripline be given to the director, but a permit is not required.

Effect on Design:

Removal and work within the drip line of street trees will meet the substantive requirements of the street tree program. Street trees will be protected during the proposed work; excavation near street trees will be conducted under the oversight of a certified arborist.

4.4 Street/Right-of-Way Excavation Permit

Excavations within the city of Ridgefield rights-of-way are regulated under Section 12.15 of the RMC. An excavation permit is required for work that involves disturbing the surface of any street, alley, sidewalk, curb, drainage-way, or other structure within city right-of-way. Standards for work within the city rights-of-way are described in the City of Ridgefield Engineering Standards for Public Works Construction.

Effect on Design:

Work within city rights-of-way will be completed consistent with the substantive requirements of the applicable sections of the City of Ridgefield Engineering Standards for Public Works Construction.