Lower Duwamish Waterway
RM 0.0 to 1.0 West
(Spokane Street to Kellogg Island)

Summary of Existing Information and Identification of Data Gaps

Volume 1: Main Text, Figures, and Tables

Prepared for

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Acronyms and Abbreviations

2LAET	Second Lowest Apparent Effects Threshold
AET	Apparent Effects Threshold
AST	aboveground storage tank
BEHP	bis(2-ethylhexyl)phthalate
bgs	below ground surface
BMP	best management practice
BNSF	Burlington Northern Santa Fe
BTEX	benzene, toluene, ethylbenzene, and xylenes
CKD	cement kiln dust
CNE	certificate of no exposure
COC	chemical of concern
CSCSL	Confirmed and Suspected Contaminated Sites List
CSL	Cleanup Screening Level
CSO	combined sewer overflow
DMR	Discharge Monitoring Report
DW	dry weight
EAA	Early Action Area
ECHO	Enforcement and Compliance History Online
ECOSS	Environmental Coalition of South Seattle
Ecology	Washington State Department of Ecology
EOF	emergency overflow
EPA	U.S. Environmental Protection Agency
ESA	Environmental Site Assessment
GIS	Geographic Information Systems
HPAH	high molecular weight polycyclic aromatic hydrocarbon
HWTR	Hazardous Waste and Toxics Reduction
ISGP	Industrial Stormwater General Permit
ISIS	Integrated Site Information System
KCIW	King County Industrial Waste
LAET	Lowest Apparent Effects Threshold
LDW	Lower Duwamish Waterway
LDWG	Lower Duwamish Waterway Group
LNAPL	light non-aqueous phase liquid
LPAH	low molecular weight polycyclic aromatic hydrocarbon
LUST	leaking underground storage tank
µg/kg	micrograms per kilogram
µg/L	micrograms per liter
mg/kg	milligrams per kilogram
mgy	million gallons per year
MOU	Memorandum of Understanding
MTCA	Model Toxics Control Act
NAICS	North American Industry Classification System
NFA	No Further Action
ng/kg	nanograms per kilogram
NOAA	National Oceanic and Atmospheric Administration
NOV	Notice of Violation
NPDES	National Pollutant Discharge Elimination System
NWRO	Northwest Regional Office

Acronyms and Abbreviations (Continued)

OC	organic carbon
PAH	polycyclic aromatic hydrocarbon
PBT	persistent bioaccumulative toxin
PCB	polychlorinated biphenyl
PCE	tetrachloroethene
ppb	parts per billion
ppm	parts per million
PSAPCA	Puget Sound Air Pollution Control Agency
PSCAA	Puget Sound Clean Air Agency
PVC	polyvinyl chloride
RCRA	Resource Conservation and Recovery Act
RI	Remedial Investigation
RI/FS	Remedial Investigation/Feasibility Study
RM	River Mile
SAIC	Science Applications International Corporation
SCAP	Source Control Action Plan
SCWG	Source Control Work Group
SD	storm drain
SHA	site hazard assessment
SIC	Standard Industrial Classification
SMS	Sediment Management Standards
SPI	Sediment Profiling Imaging
SPU	Seattle Public Utilities
SSCC	South Seattle Community College
sq ft	square foot
SQS	Sediment Quality Standard
SVOC	semivolatile organic compound
SWPPP	Stormwater Pollution Prevention Plan
TBT	tributyltin
TCA	trichloroethane
TCE	trichloroethylene
TEQ	toxic equivalency
TOC	total organic carbon
TPH	total petroleum hydrocarbons
TRPH	total recoverable petroleum hydrocarbons
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
UST	underground storage tank
VCP	Voluntary Cleanup Program
VOC	volatile organic compound
WAC	Washington Administrative Code
WFSL	Washington Federal Savings & Loan Association
WQS	water quality standards
WWTP	wastewater treatment plant

1.0 Introduction

1.1 Background and Purpose

This *Summary of Existing Information and Identification of Data Gaps Report* (Data Gaps Report) pertains to River Mile (RM) 0.0 to 1.0 West[1] (Spokane Street to Kellogg Island), one of 24 source control areas identified as part of the overall cleanup process for the Lower Duwamish Waterway (LDW) Superfund Site (Figure 1). It summarizes readily available information regarding properties in the Spokane Street to Kellogg Island source control area. The purpose of the Data Gaps Report is as follows:

- Identify chemicals of potential concern in sediments near the Spokane Street to Kellogg Island source control area.
- Evaluate potential contaminant migration pathways to LDW sediments.
- Identify and describe potential adjacent or upland sources of contaminants that could be transported to sediments.
- Identify critical data gaps that should be addressed in order to assess the potential for recontamination of sediments and the need for source control.
- Determine what, if any, effective source control is already in place.

The LDW consists of 5.5 miles of the Duwamish Waterway as measured from the southern tip of Harbor Island to just south of the Norfolk Combined Sewer Overflow (CSO). The LDW flows into Elliott Bay in Seattle, Washington. The LDW was added to the U.S. Environmental Protection Agency (USEPA or EPA) National Priorities List in September 2001 due to the presence of chemical contaminants in sediment. The key parties involved in the LDW site are EPA, the Washington State Department of Ecology (Ecology), and the Lower Duwamish Waterway Group (LDWG); which is composed of the City of Seattle, King County, the Port of Seattle (the Port), and The Boeing Company (Boeing). In December 2000, EPA and Ecology signed an agreement with the LDWG to conduct a Remedial Investigation/Feasibility Study (RI/FS) for the LDW site.

EPA is leading the effort to determine the most effective cleanup strategies for the LDW through the RI/FS process. Ecology is leading the effort to investigate adjacent and upland sources of contamination and to develop plans to reduce contaminant migration to waterway sediments.[2] The LDWG collected data during the Phase I Remedial Investigation (RI) (Windward 2003) that were used to identify candidate locations for early cleanup action. Seven candidate early action areas (EAAs or Tier 1 sites) were identified. Ecology's *Lower Duwamish Waterway Source Control Status Report, 2003 to June 2007* (Ecology 2007g) and *Lower Duwamish Waterway Source Control Status Report, July 2007 to March 2008* (Ecology 2008a) identified another 16 areas where source control actions may be necessary. The Spokane Street to Kellogg Island

[1] River miles as defined in this report are measured from the southern tip of Harbor Island.
[2] EPA and Ecology signed an interagency Memorandum of Understanding (MOU) in April 2002 and updated the MOU in April 2004. The MOU divides responsibilities for the site. EPA is the lead agency for the sediment RI/FS, while Ecology is the lead agency for source control issues (EPA and Ecology 2002, 2004).

source control area was identified as one of these areas. One additional source control area was added by Ecology in 2010, for a total of 24 source control areas. The seven candidate EAAs and 17 additional source control areas are shown on Figure 1. Subsequently, Ecology and EPA redefined the boundaries of the source control areas, generally defined by stormwater drainage areas. Figure 2 shows the stormwater drainage basins near the Spokane Street to Kellogg Island source control area. CSO basins, which overlap with stormwater drainage basins in many areas along the LDW, were not considered for defining source control area boundaries. However, sources within the CSO basins are evaluated as part of source control. Figure 3 shows the King County CSO basins associated with the LDW.

Ecology is the lead agency for source control for the LDW site. Source control is the process of finding and eliminating or reducing releases of contaminants to LDW sediments, to the extent practicable. The goal of source control is to prevent sediments from being recontaminated after cleanup has been undertaken.

The LDW Source Control Strategy (Ecology 2004a) describes the process for identifying source control issues and implementing effective controls for the LDW. The plan is to identify and manage potential sources of sediment recontamination in coordination with sediment cleanups. Source control will be achieved by using existing administrative and legal authorities to perform inspections and require necessary source control actions.

The strategy is based primarily on the principles of source control for sediment sites described in EPA's *Principles for Managing Contaminated Sediment Risks at Hazardous Waste Sites* (USEPA 2002), and the Washington State Sediment Management Standards (SMS) (Washington Administrative Code [WAC] 173-340-370[7] and WAC 173-204-400). The Source Control Strategy involves developing and implementing a series of detailed, area-specific Source Control Action Plans (SCAPs).

Before developing a SCAP, Ecology prepares a Data Gaps Report for the source control area. Findings from the Data Gaps Report are reviewed by LDW stakeholders and are incorporated into the SCAP. This process helps to ensure that the action items identified in the SCAP will be effective, implementable, and enforceable. As part of the source control efforts for the Spokane Street to Kellogg Island source control area, Ecology requested Science Applications International Corporation (SAIC) to prepare this Data Gaps Report.

1.2 Report Organization

Section 2.0 of this report provides background information on the Spokane Street to Kellogg Island source control area, including location, physical characteristics, chemicals of concern (COCs), and pathways by which contaminants may reach sediments. Sections 3.0 through 7.0 describe potential sources of contaminants and data gaps that must be addressed in order to develop and implement a SCAP for the source control area. Section 8.0 provides a summary of data gaps, and Section 9.0 lists the documents cited in this report.

Information presented in this report was obtained from the following sources:

- Ecology Northwest Regional Office (NWRO) Central Records;
- Washington State Archives;
- EPA files;
- U.S. Army Corps of Engineers (USACE) Archives from the National Archives – Pacific Alaska Region;
- Seattle Public Utilities (SPU) business inspection reports;
- Ecology Underground Storage Tank (UST) and Leaking Underground Storage Tank (LUST) lists;
- Ecology Facility/Site Database;
- Ecology Integrated Site Information System (ISIS) Database;
- Washington State Confirmed and Suspected Contaminated Sites List (CSCSL);
- EPA Enforcement and Compliance History Online (ECHO);
- EPA Envirofacts Warehouse;
- King County Geographic Information Systems (GIS) Center Parcel Viewer, Property Tax Records, and iMap;
- GIS shape files produced by SPU;
- Current and historical information regarding operations and environmental investigations from the Port; and
- Historical aerial photographs.

Information collected from the Facility/Site Database, ISIS, ECHO, EPA Envirofacts Warehouse, and King County property tax records was current as of February 2012. Recent updates to these databases may not be reflected in this report.

1.3 Scope of Report

This report documents readily available information relevant to potential sources of contaminants to sediments associated with the Spokane Street to Kellogg Island source control area, including outfalls, adjacent and upland properties within the SW Dakota and SW Idaho storm drain (SD) basins, and the Duwamish West CSO basin.

Air pollution is a potential source of sediment contamination with origins outside of the Spokane Street to Kellogg Island source control area. Although limited discussion of atmospheric deposition is provided in Section 2.0, the scope of this report does not include an assessment of data gaps pertaining to the effects of air pollution on the sediments associated with the source control area. Because air pollution is a concern for the wider LDW region, Ecology will review work being conducted by the Washington State Department of Health and planned by the Puget Sound Partnership regarding atmospheric deposition.

Information presented in this report is limited to the Spokane Street to Kellogg Island source control area, direct discharges to the sediments adjacent to the source control area, and potential adjacent and upland contaminant sources. This report focuses on sources that have the potential to recontaminate sediments associated with the source control area in the event that sediment

remediation is required. Source control with regard to any contaminated sediments left in place will be important to address as part of the remedial action selection process for sediments adjacent to the Spokane Street to Kellogg Island source control area.

Chemical data have been compared to relevant regulatory criteria and guidelines, as appropriate. The level of assessment conducted for the data reviewed in this report is determined by the source control objectives. The scope of this Data Gaps Report does not include data validation or analysis that exceeds what is required to reasonably achieve source control.

2.0 Spokane Street to Kellogg Island Source Control Area

The Spokane Street to Kellogg Island source control area, also referred to as the RM 0.0-1.0 West source control area, is located along the western side of the LDW between RM 0.0 and 1.0, as measured from the southern end of Harbor Island (Figure 1). Properties and facilities located directly adjacent to the LDW that could affect sediments at RM 0.0-1.0 West are shown in Figure 4. From north to south, these properties/facilities are:

- Riverside Mill LLC property and it tenants:
  - Bob's Boat Shop
  - United Motor Freight
- Burlington Northern Santa Fe (BNSF) Railroad Right-of-Way
- Port of Seattle Terminal 103 and its tenants:
  - General Construction Company
  - Northwest Aggregates
- Global Diving & Salvage
- Port of Seattle Terminal 105
- Pacific Rendering
- Ferguson Enterprises
- General Recycling of Washington
- Former Seaboard Lumber Property, which includes:
  - Evergreen Trails
  - Herring's House Park
- Port of Seattle Terminal 107 and its tenant:
  - Alaska Marine Lines

The LDW is east of these facilities. Located to the west of these properties are West Marginal Way SW and other industrial facilities. Upland properties that could potentially affect sediments adjacent to the Spokane Street to Kellogg Island source control area are listed below (from north to south):

Properties/facilities within the SW Dakota Street SD basin, listed from generally north to south:

- Former Fraser Properties
- Tryg Winquist Construction
- West Seattle Recycling Center
- Active Environmental
- Former Concrete Restoration
- Heathco and Penthouse Drapery
- Raynroof Roofing
- 4101 West Marginal Way SW Business Park and its tenants:

    - Aquatic Enterprises
    - Cohesive Garage
    - Metal Shorts
    - Wheelchairs Plus
- Strutz Property
- Seattle Parks and Recreation Westbridge Maintenance Facility

Properties/facilities within the SW Idaho Street SD basin, listed from generally north to south:

- New Finishes/Pacifica
- Continental Van Lines
- Airclean Technologies
- Former Central Painting property/Expert Marble & Granite
- Fog Tite Meter and Seal
- Evergreen Building Products
- Heath Landscape
- West Seattle Estates
- Ortega Property
- South Seattle Community College
- King Residence

Upland properties where cement kiln dust (CKD) has been used as a fill material:

- Puget Park and the McFarland Property
- Washington Federal Savings & Loan Cement Kiln Dust site

These properties are listed on Table 1.[3] The parcels associated with these adjacent and upland facilities are identified on Figures 5a through 5c. In addition, the Duwamish West CSO basin was reviewed to identify any additional facilities that could represent potential sediment recontamination sources. Ecology has assigned Facility/Site identification numbers to 143 facilities within the Duwamish West CSO basin (Appendix C).

2.1 Site Description

General background information on the LDW is provided in the Phase I RI Report (Windward 2003), which describes the history of dredging/filling and industrialization of the Duwamish River and its environs, as well as the physiography, physical characteristics, hydrogeology, and hydrology of the area.

[3] Table 1 lists a Map ID, all names and the Ecology/Facility Site ID numbers associated with each property/facility. Facilities/properties are identified by Map ID on Figure 5a and on the figures included in Appendix C.

The upland areas adjacent to the LDW have been industrialized for many decades; historical a commercial and industrial operations in the vicinity of the Spokane Street to Kellogg Island source control area include nut and bolt manufacturing, construction equipment storage yards, metal foundry and treatment facilities, sand and gravel yards, lumber mills, and brick manufacturing (Foster 1945). Current industrial activities include boat and automotive maintenance and repair, trucking, construction materials and equipment storage, aggregate storage, recyclable materials collection, and storage.

Several public parks are located within the Spokane Street to Kellogg Island source control area. The Terminal 105 Park, Herring's House Park, and Terminal 107 Park are adjacent to the LDW. The northern portion of the West Duwamish Greenbelt is located within the source control area. Pigeon Point Park and Puget Park are part of the West Duwamish Greenbelt. Parks within the source control area are shown on Figure 6.

In the late 1800s and early 1900s, extensive topographic modifications were made to the Duwamish River to create a straightened channel; many of the current side slips are remnants of old river meanders.

Groundwater in the Duwamish Valley alluvium is typically encountered within about 3 meters (10 feet) of the ground surface and under unconfined conditions (Windward 2003). The general direction of groundwater flow is toward the LDW, although the direction may vary locally depending on the nature of the subsurface material, and temporally, based on proximity to the LDW and the influence of tidal action. High tides can cause temporary groundwater flow reversals, generally within 100 to 150 meters (300 to 500 feet) of the LDW (Booth and Herman 1998). Groundwater flow in the vicinity of the source control area is generally to the east, toward the LDW.

Bottom sediment composition is variable throughout the LDW, ranging from sands to mud. Typically, the sediment consists of slightly sandy silt with varying amounts of organic detritus. Coarser sediments are present in nearshore areas adjacent to storm drain discharges (Weston 1999); finer grained sediments are typically located in remnant mudflats and along channel side slopes. Sediments near the Spokane Street to Kellogg Island source control area consist of primarily of 40.1 to 60 percent fines between RM 0.6-0.9 West and greater than 80 percent fines between RM 0.3-0.6 West and between RM 0.9-1.0 West. Smaller areas of sediments consisting of 0 to 20 percent fines are present at the northern end of the source control near RM 0.0 West and north of Kellogg Island between RM 0.6-0.7 West and 60.1 to 80 percent fines between RM 0.1-0.3 West and RM 0.6 to 0.7 West. Sediments in an inlet between RM 0.0 and 0.1 West consist of 40.1 to 60 percent fines. Total organic carbon (TOC) in this area ranges from 0.09 to 9.23 percent (Appendix A).

In an effort to more thoroughly understand and evaluate historical facility operations and development in the Spokane Street to Kellogg Island source control area, SAIC reviewed historical aerial and oblique shoreline photographs from 1936 to 2006. These photographs represent conditions during roughly each decade. The photographs and complete descriptions for the years 1936, 1946, 1956, 1960, 1969, 1974, 1980, 1990, 1993, 1995, 2000, 2001, 2004, and 2006 are provided in Appendix B. For ease of description, the properties are identified by the facility names used in the Data Gaps Report.

2.2 Chemicals of Concern in Sediment

COCs in sediment associated with the Spokane Street to Kellogg Island source control area were identified based on sediment sampling conducted between 1991 and 2011.

2.2.1 Sediment Investigations

Between 1991 and 2011, 184 sediment samples have been collected adjacent to the Spokane Street to Kellogg Island source control area as part of the investigations listed below. Sampling locations are listed in Table 2 and are shown in Figures 7a through 7d. Data and information regarding the investigations performed before 2005 were compiled by Windward for the LDW RI (Windward 2003, 2010b). Concentrations of COCs in surface and subsurface sediment samples detected above screening levels are presented in Tables 3 and 4, respectively.

- **Harbor Island Remedial Investigation (1991) (Windward 2003)**

  One surface sediment sample was collected near the source control area in September 1991. The sample was analyzed for metals, polychlorinated biphenyls (PCBs), semivolatile organic compounds (SVOCs) including polycyclic aromatic hydrocarbons (PAHs) and phthalates, pesticides, and petroleum hydrocarbons.

- **Terminal 105 Site Assessment (1993) (Olympus 1994)**

  Three surface sediment samples were collected near the source control area in November 1993. The samples were analyzed for metals, PCBs, SVOCs including PAHs and phthalates, volatile organic compounds (VOCs), and heavy oil-range petroleum hydrocarbons.

- **Seaboard Lumber – Phase 2 Investigation (1996) (Herrera 1996)**

  Twenty surface samples were collected near the former Seaboard Lumber property and the source control area in March 1996. Samples were analyzed for metals, PCBs, and SVOCs including PAHs and phthalates.

- **Duwamish Waterway Sediment Characterization Study (NOAA 1998)**

  Twenty-seven surface sediment samples were collected near the source control area during September, October, and November 1997. All 27 samples were analyzed for PCBs and polychlorinated terphenyls.

- **King County CSO Water Quality Assessment (1997) (King County 1999)**

  Thirteen surface sediment samples were collected near the source control area in 1997; nine of these samples were collected from a single sampling station (WQAKELL) over a 2-month period from March to May. The remaining samples were collected from four discrete stations in September 1997. All samples were analyzed for metals. Three of the WQAKELL samples and all September 1997 samples were analyzed for PCBs, PAHs, phthalates, and other SVOCs. The September 1997 samples were also analyzed for tetrabutyltin.

- **Puget Sound Sediment Quality/NOAA Site Characterization (1998) (Ecology 2000)**
  One surface sediment sample was collected near the source control area in June 1998. The sample was analyzed for metals, PCBs, PAHs, phthalates, other SVOCs, pesticides, and organometals.

- **EPA Site Inspection, Lower Duwamish River (1998) (Weston 1999)**
  In August 1998, 28 surface sediment samples were collected near the source control area. All 28 samples were analyzed for metals, PCBs, PAHs, phthalates, and other SVOCs. Eight samples were analyzed for organometals and four samples were analyzed for dioxins/furans, pesticides, and volatile organic compounds (VOCs).

- **LDW Phase 2 Remedial Investigation, Benthic, Round 1, 2, and 3 Sediment Sampling (Windward 2005a, 2005b, 2010b)**
  Thirty-three surface sediment samples were collected adjacent to the source control area during four rounds of sampling for the Phase 2 RI from 2004 to 2006. All samples were analyzed for metals and trace elements, SVOCs, PAHs, phthalates, and PCBs; 15 samples were analyzed for organometals, 13 samples were analyzed for pesticides, and four samples were analyzed for dioxins/furans.

- **LDW Phase 2 RI Subsurface Sediment Sampling (Windward 2007)**
  Thirty-seven samples were collected from five coring locations near the source control area during 2006. All samples were analyzed for PCBs, 17 samples were analyzed for metals, and 15 samples were analyzed for PAHs, phthalates, and other SVOCs. Additionally, two samples from coring location LDW-SC12 were analyzed for organometals and three samples from coring location LDW-SC19 were analyzed for dioxins/furans.

- **Ecology Sediment Profiling Imaging (SPI) - Part 1: Lower Duwamish Waterway (Ecology 2007f)**
  In August 2006, four surface sediment samples were collected near the source control area. The samples were analyzed for PCBs, SVOCs, metals, and organometals.

- **LDW RI Dioxin Sampling (Windward 2010a)**
  In December 2009, three surface sediment samples were collected near the source control area. All three samples were analyzed for dioxins/furans; one sample was analyzed for arsenic, PAHs, and PCBs.

- **Surface Sediment Sampling at Outfalls in the Lower Duwamish Waterway (SAIC 2011)**
  In March and April 2011, 14 surface sediment samples were collected near the source control area. All samples were analyzed for metals, PCBs, PAHs, phthalates, and other SVOCs; two samples were analyzed for dioxins/furans.

Sediment sampling results are listed in Appendices A-1 and A-2 for surface and subsurface sediments, respectively.

2.2.2 Identification of Chemicals of Concern

A COC is defined in this report as a chemical that is present in sediments associated with the Spokane Street to Kellogg Island source control area at concentrations above regulatory criteria, and is therefore of particular interest with respect to source control. These COCs are the initial focus of the evaluation of potential contaminant sources.

The Washington SMS (Chapter 173-204 WAC) establish marine Sediment Quality Standard (SQS) and Cleanup Screening Level (CSL) values for some chemicals that may be present in sediments. The SQS values correspond to a sediment quality level that will result in no adverse effects on biological resources and no significant human health risk. CSLs represent minor adverse effects levels and are used as an upper regulatory threshold for making decisions about source control and cleanup. The SQS and CSL values are based on the Lowest Apparent Effects Threshold (LAET) and Second Lowest Apparent Effects Threshold (2LAET). Apparent Effects Threshold (AET) values are the concentrations of specific chemicals in sediment above which a significant adverse biological effect is observed (Ecology 1996a). The AET values form the basis for both the Puget Sound Dredged Disposal Analysis program guidelines and the criteria contained in the SMS rule.

A chemical was identified as a COC for the Spokane Street to Kellogg Island source control area if it was detected in surface or subsurface sediment at concentrations above the SQS in at least one sample. A comparison of sample results to the SQS and CSL values is provided in Appendix A, and those chemicals that were detected at concentrations above their respective SQS/CSL values are listed in Tables 3 and 4 for surface and subsurface sediments, respectively. For non-polar organics, the dry weight (DW) concentrations were organic carbon (OC) normalized to allow comparison to the SQS/CSL, except when TOC in the sample is less than 0.5 percent or greater than 4 percent. When TOC is outside this range, OC normalization is not considered to be appropriate (Michelsen and Bragdon-Cook 1993, as cited in Windward 2010b), and the dry weight concentrations for non-polar organics are instead compared to the LAET and 2LAET values, which are functionally equivalent to the SQS and CSL. Chemicals detected in sediment for which no SQS/CSL or LAET/2LAET values are available may be identified as COCs on a case-by-case basis.

Chemicals with concentrations above the SQS in surface or subsurface sediment samples are listed below. In general, chemicals were present in sediment samples at concentrations only slightly above the SQS values; the greatest exceedances were observed for PCBs in subsurface samples collected near the Terminal 107 Park and the former Seaboard Lumber property, the SW Idaho Street SD outfall, downstream from Kellogg Island and immediately north of Lafarge Cement (Figures 7b through 7d).

Chemicals Detected at Concentrations Above the SQS/CSL	Surface Sediment		Subsurface Sediment	
	> SQS	> CSL	> SQS	> CSL
Metals				
Lead			●	●
Mercury	●	●	●	●
Zinc	●		●	

Chemicals Detected at Concentrations Above the SQS/CSL	Surface Sediment		Subsurface Sediment	
	> SQS	> CSL	> SQS	> CSL
PAHs				
Acenaphthene	●			
Benzo(a)anthracene	●	●	●	●
Benzo(a)pyrene	●	●	●	
Benzofluoranthenes (total calc'd)	●	●	●	●
Benzo(g,h,i)perylene	●	●		
Chrysene	●	●	●	●
Dibenzo(a,h)anthracene	●			
Fluoranthene	●	●	●	●
Fluorene	●			
Indeno(1,2,3-cd)pyrene	●	●	●	
Phenanthrene	●			
Pyrene	●	●	●	●
Total HPAH	●	●	●	●
Phthalates				
Bis(2-ethylhexyl)phthalate	●	●	●	
Butyl benzyl phthalate	●			
Phenols				
2,4-Dimethylphenol	●	●		
4-Methylphenol	●	●		
Phenol	●			
Other SVOCs				
Benzoic acid	●	●		
Benzyl alcohol	●	●		
Dibenzofuran	●			
N-nitroso-di-n-propylamine			●	
PCBs				
PCBs (total)	●	●	●	●

Exceedance factors, which are a measure of the degree to which maximum detected concentrations exceed the SQS/CSL values, are listed in Tables 3 and 4.
HPAH = high molecular weight PAH
LPAH = low molecular weight PAH

Results for these chemicals are discussed in more detail below. Concentrations of arsenic, PCBs and the carcinogenic PAH (cPAHs), and dioxin/furan TEQs were compared to the LDW background levels identified in the draft final LDW FS (AECOM 2010). These comparisons are provided in Appendices A-1 and A-2.

Metals

Mercury concentrations exceeded the SQS and CSL in surface and subsurface sediment samples. The highest concentration of mercury slightly exceeded the SQS and CSL from surface sample LDW-SS310, offshore of General Recycling of Washington (Figure 7c). Mercury concentrations also exceeded the SQS and CSL in surface samples collected near the Terminal 107 Park and the former Seaboard Lumber property (Figure 7c) and exceeded the SQS in sample DR035, offshore

of the Terminal 105 Park and General Recycling of Washington. In subsurface samples, mercury concentrations exceeded the SQS and CSL in samples collected near the northeastern shore of Kellogg Island, near the SW Idaho Street SD outfall, and near the SW Dakota Street outfall (Figures 7b and 7c). Zinc concentrations slightly exceeded the SQS in surface and subsurface samples; the highest concentration of zinc was observed in the 0 to 0.8-foot interval from subsurface coring location LDW-SC11, offshore of the Terminal 107 Park and near the former Seaboard Lumber property. In surface samples, zinc concentrations exceeded the SQS in samples collected near Outfall 2149 and near the former Seaboard Lumber property. Lead also exceeded the SQS and CSL in this sample (Figure 7c).

Arsenic was detected in 131 of the 133 sediment samples analyzed for arsenic; concentrations in sediment did not exceed the SMS or LAET/2LAET criteria. Arsenic concentrations in 114 samples exceeded the LDW background level of 7.3 mg/kg DW (AECOM 2010).

PAHs

PAH concentrations exceeding the SQS/LAET were detected in 12 surface samples and one subsurface sample collected from coring location LDW-SC11. PAH concentrations exceeding the 2LAET were detected in six surface samples and one subsurface sample collected from coring location LDW-SC11. Offshore of Outfall 2233 and the Terminal 105 Park, concentrations of acenaphthene, benzo(g,h,i)perylene, chrysene, fluoranthene, fluorene, indeno(1,2,3-cd)pyrene, phenanthrene, and total high molecular weight polycyclic aromatic hydrocarbons (HPAHs) exceeded the respective SQS levels in surface sample DR033. Fluoranthene exceeded the CSL in surface sample SS1, collected offshore of former Terminal 105. Concentrations of acenaphthene, fluoranthene, fluorene, and phenanthrene exceeded the SQS in surface samples DR037 and DR038, which were collected near General Recycling of Washington. In surface samples, concentrations of benzo(a)anthracene, benzo(a)pyrene, benzo(g,h,i)perylene, benzofluoranthenes, chrysene, fluoranthene, indeno(1,2,3-cd)pyrene, and pyrene and total HPAHs exceeded the 2LAET in samples collected offshore of the Terminal 107 Park and the former Seaboard Lumber property (Figure 7c). In the 0 to 0.8-foot sample from LDW-SC11, benzo(a)anthracene, benzo(a)pyrene, benzofluoranthenes, chrysene, fluoranthene, pyrene, and total HPAH concentrations exceeded the LAET and the 2LAET. The indeno(1,2,3-cd)pyrene concentration exceeded only the LAET (Figure 7c).

PAHs were detected in 124 of the 129 sediment samples analyzed for PAHs. The carcinogenic PAHs (cPAH) TEQ in all 124 samples containing PAHs exceeded the LDW background level of 8.9 μg/kg (AECOM 2010).

Phthalates

Bis(2-ethylhexyl)phthalate (BEHP) and butyl benzyl phthalate concentrations exceeded the SQS in surface samples collected near Outfall 2150 (Figure 7b). BEHP also exceeded the SQS near Duwamish West CSO outfall, and butyl benzyl phthalate exceeded the SQS offshore of the Terminal 107 Park (Figures 7c and 7d). BEHP exceeded the SQS in a subsurface sediment sample near the SW Idaho Street SD outfall and exceeded the SQS and CSL in surface sample DR076, collected offshore from Terminal 103 (Figure 7b).

Other SVOCs

Concentrations of 2,4-dimethylphenol, 4-methylphenol, benzoic acid, and benzyl alcohol exceeded the SQS and the CSL in surface sediment samples. Benzoic acid exceedances were observed in one sample collected downstream from Kellogg Island (Figure 7d). Benzyl alcohol exceedances were observed in samples collected offshore of the Terminal 107 Park and former Seaboard Lumber property, near the Duwamish West CSO outfall, and near Outfalls 2149 and 2157 (Figures 7b through 7d). An exceedance of 4-methylphenol was observed in a sample collected off the eastern shore of Kellogg Island (Figure 7d). Exceedances of 2,4-dimethylphenol were observed in samples collected offshore of Terminal 105, General Recycling of Washington, and the former Seaboard Lumber property (Figures 7b through 7d). Phenol concentrations exceeded only the SQS in samples collected offshore of Terminal 105, General Recycling of Washington, and off the western and northeastern shores of Kellogg Island. Dibenzofuran exceeded the SQS in one sample collected offshore from General Recycling of Washington (Figures 7b through 7d). In subsurface samples, n-nitroso-di-n-propylamine exceeded the SQS in one sample collected near the Terminal 107 Park and the former Seaboard Lumber property (Figure 7d).

PCBs

PCB concentrations exceeded the SQS and/or CSL in 28 surface and 18 subsurface sediment samples from five sediment cores. The greatest PCB concentrations were observed in subsurface samples collected from sediment cores LDW-SC6, LDW-SC11, LDW-SC12, and LDW-SC19. These samples were collected near the SW Idaho Street outfall, near the Terminal 107 Park, downstream from Kellogg Island, and north of Lafarge Cement (Figures 7c and 7d).

PCBs were detected in 159 of 178 samples analyzed for PCBs. The total PCB concentration in 149 samples exceeded the LDW background level of 6.5 µg/kg (AECOM 2010).

Other COCs

Although no sediment quality standards have been promulgated, dioxins and furans are considered to be potential COCs at the Spokane Street to Kellogg Island source control area. These compounds were detected in 12 surface sediment samples and 3 subsurface sediment samples from one coring location. Mammalian dioxin/furan toxic equivalency (TEQs) ranged from 1.61 to 74.5 nanograms per kilograms (ng/kg) DW (see Appendix A). The dioxin/furan TEQ for all 15 samples exceeded the LDW background dioxin/furan TEQ of 1.6 ng/kg (AECOM 2010). The highest concentrations of dioxins/furans were detected at location LDW-SS509.

Organotin compounds are persistent bioaccumulative toxins (PBTs) and are generally considered COCs for LDW sediments. Tributyltin (TBT) is used as the indicator chemical for organotin compounds. The mean concentration of TBT in the LDW is 90 milligrams per kilogram (mg/kg) DW (AECOM 2010). Organotin compounds were detected at 29 sampling locations near the Spokane Street to Kellogg Island source control area in between 1998 and 2006, with concentrations of TBT up to 0.25 mg/kg DW at location DR038. Since the maximum TBT concentration in sediments near the Spokane Street to Kellogg Island source control area is two orders of magnitude below the mean TBT concentration in LDW sediment, organotin

compounds are not considered COCs for the sediments adjacent to the Spokane Street to Kellogg Island source control area.

2.2.3 Summary of Chemicals of Concern in Sediments

As described above, COCs were identified based on the results of sediment sampling conducted between 1996 and 2011. Chemicals that exceeded the SQS in at least one surface or subsurface sediment sample offshore of the Spokane Street to Kellogg Island source control area are considered COCs. In addition, dioxins/furans were identified as potential COCs, as described above.

In summary, the following chemicals are considered to be COCs in sediment associated with the Spokane Street to Kellogg Island source control area:

- Metals: lead, mercury, and zinc;
- PAHs: acenaphthene, benzo(a)anthracene, benzo(a)pyrene, benzo(g,h,i)perylene, benzofluoranthenes, chrysene, dibenzo(a,h)anthracene, fluoranthene, fluorene, indeno(1,2,3-cd)pyrene, phenanthrene, pyrene, and total HPAH;
- BEHP and butyl benzyl phthalate;
- Other SVOCs: 2,4-dimethylphenol, 4-methylphenol, benzoic acid, benzyl alcohol, dibenzofuran, n-nitroso-di-n-propylamine, and phenol;
- PCBs; and
- Dioxins/furans.

2.3 Potential Pathways to Sediment

Potential sources of sediment recontamination associated with the Spokane Street to Kellogg Island source control area include storm drains, CSO outfalls, and discharges from adjacent properties. Transport pathways that could contribute to the recontamination of sediments near the Spokane Street to Kellogg Island source control area following remedial activities include direct discharges via outfalls, surface runoff (sheet flow) from adjacent properties, bank erosion, groundwater discharges, air deposition, and spills directly to the LDW. These pathways are described below and are discussed in more specific detail in Sections 3.0 through 7.0.

2.3.1 Direct Discharges via Outfalls

Direct discharges may occur from public or private storm drain systems, CSOs, and emergency overflows (EOFs). In the Spokane Street to Kellogg Island source control area, there are seven public storm drains, two private storm drains, seven unresolved storm drains, four drainage channels, and one CSO/EOF (Section 3.0).

Upland areas within the LDW are served by a combination of separated storm/sanitary systems and combined sewer systems. Storm drains convey stormwater runoff collected from pervious surfaces (yards, parks) and impervious surfaces (streets, parking lots, driveways, and rooftops) in the drainage basin. In the LDW, there are both public and private storm drain systems. Most of the waterfront properties are served by privately owned systems that discharge directly to the

waterway. The other upland areas are served by a combination of privately and publicly owned systems. Typically, private onsite storm drain systems discharge to the public storm drain in the street, which conveys runoff from private property and public rights-of-way to the LDW.

The sanitary sewer system collects municipal and industrial wastewater from throughout the LDW area and conveys it to King County's West Point wastewater treatment plant (WWTP), where it is treated before being discharged to Puget Sound. The smaller trunk sewer lines, which collect wastewater from individual properties, are owned and operated by the individual municipalities (e.g., Cities of Seattle and Tukwila) and local sewer districts. The large interceptor system that collects wastewater from the trunk lines is owned and operated by King County. A King County interceptor extends along the west side of West Marginal Way SW.

Some areas of the LDW are served by combined sewer systems, which carry both stormwater and municipal/industrial wastewater in a single pipe. These systems were generally constructed before about 1970 because it was less expensive to install a single pipe rather than separate storm and sanitary systems. Under normal rainfall conditions, wastewater and stormwater are conveyed through this combined sewer pipe to a wastewater treatment facility. During large storm events, however, the total volume of wastewater and stormwater can sometimes exceed the conveyance and treatment capacity of the combined sewer system. When this occurs, the combined sewer system is designed to overflow through relief points, called CSOs. The CSOs prevent the combined sewer system from backing up and creating flooding problems.

A mixture of untreated municipal/industrial wastewater and stormwater can potentially be discharged through CSOs to the LDW during these storm events. The City's CSO network has its own National Pollutant Discharge Elimination System (NPDES) permit; the County's CSOs are administered under the NPDES permit established for the West Point WWTP.

An EOF is a discharge that can occur from either the combined or sanitary sewer systems that is not necessarily related to storm conditions and/or system capacity limitations. EOF discharges typically occur as a result of mechanical issues (e.g., pump station failures) or when transport lines are blocked; pump stations are operated by both the City and County. Pressure relief points are provided in the drainage network to discharge flow to an existing storm drain or CSO pipe under emergency conditions to prevent sewer backups. EOF events are not covered under the City's or County's existing CSO wastewater permits.

There are 14 CSOs/EOFs in the LDW (Table 4). The county CSOs at S Brandon Street, Michigan Street, and Hanford No. 1 (discharging via the City's Diagonal Avenue S CSO/SD outfall) had the highest average discharge volumes between 2000 and 2007. The Duwamish West CSO is located at RM 0.5 West, within the Spokane Street to Kellogg Island source control area. The 20-year average overflow frequency at the Duwamish West CSO is less than one CSO event per year.

Annual stormwater discharge volumes are usually substantially higher than annual CSO discharges because storm drains discharge whenever it rains, while CSOs only occur when storm events exceed the system capacity. Annual stormwater discharges to the LDW have been estimated at approximately 4,000 million gallons per year (mgy) compared to less than 65 mgy from the county CSOs and less than 10 mgy from the city CSOs (Windward 2007).

To minimize the frequency and volume of CSO events, the county utilizes different CSO control strategies to maximize system capacity. An automated control system manages flows through the King County interceptor system so that the maximum amount of flow is contained in pipelines and storage facilities until it can be conveyed to a regional WWTP for secondary treatment. In some areas of the system, where flows cannot be conveyed to the plant, the overflows are sent to CSO treatment facilities for primary treatment and disinfection prior to discharge. County CSOs discharge untreated wastewater only when flows exceed the capacity of these systems (King County 2007).[4]

As a result, some areas may overflow to different outfalls at different times, depending on the route that the combined stormwater/wastewater has taken through the county conveyance system. Furthermore, some industrial facilities in the LDW basin may discharge stormwater to a separated system and industrial wastewater to a combined system, or a conveyance that begins as a separated system may discharge to a combined system further downstream along the flow path. Within the Duwamish West CSO system, there are facilities within sanitary sewer service areas that also have stormwater drainage connections to combined sewers. Although there can be specific distinctions whether a given sub-basin or sub-service area is a fully separated, partially separated, or a fully combined sewer system, this document uses "CSO basin" as a generic term to communicate the concept of a CSO system that is tributary to a specified CSO outfall and that includes some portion of identifiable storm drainage conveyance connected to combined sewers.

When preparing a Data Gaps Report for a source control area, all properties that potentially discharge to that source control area (whether through a CSO/EOF or a separated storm drain) are identified to the extent that the boundaries of the stormwater drainage basin are known. However, for areas where drainage basins overlap, a property review is performed only if the property has not already been included in a previously published Data Gaps Report. Exceptions include situations where contaminants may be transported to the current source control area via a transport pathway that was not applicable for the earlier evaluation. The Duwamish West CSO drainage basin includes properties that have been discussed in other Data Gaps Reports and SCAPs (Table C-1). The facilities located in the Spokane Street to Kellogg Island source control area are listed in Table 1.

Although COCs from individual industrial and commercial facilities within the CSO basin are significantly diluted before any discharge reaches the LDW, the cumulative effects of CSO events could contribute to recontamination of the sediments near the Spokane Street to Kellogg Island source control area. Industrial and commercial facilities discharging industrial wastes and/or stormwater to the combined sewer system are therefore considered to represent potential, but relatively minor, sources of sediment recontamination.

Large spills of hazardous substances and waste materials containing COCs may be transported to a storm drain or CSO and therefore have the potential to impact sediment in the LDW. There is a potential for spills of COCs from many of the industrial and commercial businesses in the SW Dakota Street and SW Idaho Street SD basins and the Duwamish West CSO drainage basin as well as from trucks and trains transporting hazardous substances and waste materials. Spills that occur in the storm drain and CSO basins could enter onsite or public storm drain systems and be

[4] City CSOs are generally smaller and flows are not treated prior to discharge.

discharged to the LDW through the storm drain systems or the CSO. Spill prevention is a major element of the business inspections conducted by SPU, King County, and Ecology. Many businesses are required to have spill prevention plans. In the event of a spill, Ecology and SPU respond to and investigate spill incidents.

2.3.2 Surface Runoff (Sheet Flow)

In areas lacking collection systems, spills or leaks on properties adjacent to the LDW could flow directly over impervious surfaces or through creeks and ditches to the waterway. Current operational practices at adjacent properties may contribute to the movement of contaminants to the LDW via runoff. Surface runoff from properties adjacent to the LDW may be a source of contaminants to sediments associated with the Spokane Street to Kellogg Island source control area.

2.3.3 Spills to the LDW

Near-water and over-water activities have the potential to impact adjacent sediment from spills directly to the LDW of material containing COCs. Accidental spills during loading/unloading operations may result in transport of contaminants to sediment. Over-water activities are performed at the Riverside Mill property, Terminal 103, and at General Recycling.

2.3.4 Bank Erosion

The banks of the LDW shoreline are susceptible to erosion by wind and surface water, particularly in areas where banks are steep. Shoreline armoring and the presence of vegetation reduce the potential for bank erosion. Contaminants in soils along the banks of the LDW could be released directly to sediments via erosion. Soil contamination has been documented at Terminal 103, Terminal 105, General Recycling and the former Seaboard Lumber property.

In May 2011, ten bank soil samples were collected from two areas within the Spokane Street to Kellogg Island source control area, the Terminal 105 Park (former Riverside Marina area) and Terminal 107 (Figures 7b and 7d). The samples at Terminal 107 were collected from a layer that was identified as possible CKD. Soil samples were analyzed for metals, PCBs, PAHs, other SVOCs, total petroleum hydrocarbons (TPH), TBT, polybrominated diethyl ethers, pesticides and dioxins/furans. Concentrations of arsenic, lead, mercury, and zinc exceeded the SQS and CSL. Concentrations of arsenic, total carcinogenic (cPAHs), PCBs and dioxin/furan TEQ exceeded LDW background levels (Table 6) (Hart Crowser 2012).

	Terminal 105 Park			**Terminal 107**		
Chemical	**>SQS**	**>CSL**	**>LDW Background**	**>SQS**	**>CSL**	**>LDW Background**
Arsenic			●	●	●	●
Lead				●	●	
Mercury	●	●				
Zinc				●	●	
cPAHs TEQ			●			

	Terminal 105 Park			Terminal 107		
Chemical	**>SQS**	**>CSL**	**>LDW Background**	**>SQS**	**>CSL**	**>LDW Background**
Dioxin/Furan TEQ			●			●
PCBs			●			

2.3.5 Groundwater Discharges

Contaminants in soil resulting from spills and releases to adjacent properties may be transported to groundwater and subsequently be released to the LDW and the Spokane Street to Kellogg Island source control area. Groundwater contamination has been documented at Terminal 103, Terminal 105, and the former Seaboard Lumber property.

Concentrations of chemicals in soil and groundwater were compared to draft soil-to-sediment or groundwater-to-sediment screening levels (SAIC 2006). These screening levels were initially developed to assist in the identification of upland properties that may pose a potential risk of recontamination of sediments at Slip 4. The screening levels incorporate a number of conservative assumptions, including the absence of contaminant dilution and ample time for contaminant concentrations in soil, sediment, and groundwater to achieve equilibrium. In addition, the screening levels do not address issues of contaminant mass flux from upland media to sediments, nor do they address the area or volume of sediment that might be affected by upland contaminants. Because of these assumptions and uncertainties, these screening levels are most appropriately used for one-sided comparisons. If contaminant concentrations in upland soil or groundwater are below these screening levels, then it is unlikely that they will lead to exceedances of the SMS. However, upland concentrations that exceed these screening levels *may or may not* pose a threat to marine sediments; additional site-specific information must be considered in order to make such an assessment. While not currently considered COCs in sediment, these chemicals may warrant further investigation, depending on site-specific conditions, to evaluate the likelihood that they will lead to exceedances of the SMS.

Five seep locations were identified during the Windward seep reconnaissance survey. The Spokane Street to Kellogg Island source control area was identified as an area with lower general seepage levels (Windward 2004). Seeps 64, 69, and 71 were selected for chemical analysis (Figures 7b through 7d). Copper, lead and mercury were detected at concentrations that exceeded the Marine Chronic Water Quality Standard (WQS); lead and mercury concentrations also exceeded the draft groundwater-to-sediment screening levels. PCBs were detected in Seep 64 at a concentration of 0.46 J micrograms per liter (µg/L); which is 15 times greater than the Marine Chronic WQS of 0.030 µg/L (Table 7).

2.3.6 Atmospheric Deposition

Atmospheric deposition occurs when air pollutants enter the LDW directly or through stormwater. Air pollutants may be generated from point or non-point sources. Point sources include industrial facilities, and air pollutants may be generated from painting, sandblasting, loading/unloading of raw materials, and other activities, or through industrial smokestacks. Non-point sources include dispersed sources such as vehicle emissions, aircraft exhaust, and off-

gassing from common materials such as plastics. Air pollutants may be transported over long distances by wind, and can be deposited to land and water surfaces by precipitation or particle deposition.

One of the properties within the Spokane Street to Kellogg Island source control area is currently regulated as a point source of air emissions, Pacific Rendering. Fourteen properties within the Duwamish West CSO basin and one property within the Chelan CSO basin have been regulated as point sources of air emissions. These properties are listed below.

Facility	Air Facility System ID
Spokane Street to Kellogg Island Source Control Area	
Pacific Rendering	5303318429
Duwamish West CSO Basin	
BP West Coast Products	5303316004
Crowley Marine Services/Aniak Terminal	0229000075
Crowley Marine Services/Fort Yukon Terminal	0229000073
Crowley Marine Services/Galena Terminal	0229000074
Crowley Marine Services/Illiamna Terminal	0212200106
Crowley Marine Services/McGrath Terminal	0229000071
Crowley Marine Services/Nome Bulk Plant	0218000015
Crowley Marine Services/St. Mary's Terminal	0205000080
Duwamish Shipyard Inc.	5303300106
Kinder Morgan Liquids Terminals	5303316002
Lafarge Cement	5303300017
Olympic Pipe Line Co, BP Pipelines	5303318166
Shell Oil Products – Seattle Terminal	5303316003
Todd Pacific Shipyards	5303300125
Chelan CSO Basin	
Nucor Steel Seattle Inc.	5303300006

All of the facilities located in the Duwamish West CSO basin are on Harbor Island, with the exception of Duwamish Shipyard and Lafarge Cement. Duwamish Shipyard ceased operations in April 2007 (SAIC 2007). Historically, the Lafarge facility was regulated as a point source of air emissions under the federal Clean Air Act. In January 2010, the USEPA and Lafarge entered a consent decree settlement to address alleged violations of the Clean Air Act at operations across the United States. Several states and agencies, including Washington State and the Puget Sound Clean Air Agency (PSCAA), joined in the settlement. The kiln was to be put into a care and maintenance mode at the end of 2010 (Lafarge 2010).

Contaminants originating from nearby properties and streets may be transported through the air and deposited in the Spokane Street to Kellogg Island source control area or in areas that drain to the LDW. Although chemical deposition from air directly to the LDW probably occurs, this mechanism is not likely to result in sediment concentrations above local background levels. Secondary impacts of air sources on the stormwater pathway to receiving waters and sediment

are not well understood; additional information is needed. Recent and ongoing atmospheric deposition studies in the LDW area are summarized in the LDW Source Control Status Report (Ecology 2007g and subsequent updates). Ecology will continue to monitor these efforts.

3.0 Potential for Sediment Recontamination from Outfalls

Storm drains convey stormwater runoff collected from streets, parking lots, roof drains, and residential, commercial, and industrial properties to the LDW. Storm drains entering the LDW carry runoff generated by rain and snow. A wide range of chemicals may become dissolved or suspended in runoff as rainwater flows over the land. Urban areas generally accumulate particulates, dust, oil, asphalt, rust, rubber, metals, pesticides, detergents, or other materials as a result of human activities throughout the drainage basin.

Human activities include landscaping, spills, illegal dumping, vehicle maintenance (fueling, washing), and vehicle use (wear on roads, tires, brakes, fluid leaks, and emissions). These materials can be flushed into storm drains during wet weather and are then conveyed to the waterway, mainly through the stormwater system. In addition, contaminants in soil or groundwater could enter the storm drain system through cracks or gaps in the stormwater piping.

Within the Spokane Street to Kellogg Island source control area there are seven public and two private storm drain outfalls, seven outfalls of unknown or unresolved origin, four drainage ditches and channels, and one CSO/EOF (Figure 4).

3.1 Public Outfalls

As described in Section 2.3.1, public outfalls include public storm drains, CSOs, and EOFs. Seven public storm drains, four drainage ditches and channels, and one CSO/EOF discharge to the LDW within the Spokane Street to Kellogg Island source control area:

Outfall No.	Outfall Name	Diameter/Material	Outfall Type
2147	SW Idaho Street SD	72-inch concrete	Public SD
2148	NA	12-inch CPE	Public SD
2149	SW Dakota Street SD, head	24-inch CPE	Public SD
2150	NA	18-inch CPE	Public SD
2226	NA	Creek	Public Creek
2232	NA	18-inch CPE	Public SD
2233	SW Dakota Street SD, mouth	Drainage channel	Public Creek
8132	T103_01	Unknown	Public SD
8133[a]	T103_02	Unknown	Public SD
8134	T103_03	Drainage channel	Public Ditch
8135	T103_04	Drainage channel	Public Ditch
NA	Duwamish West CSO, Siphon West CSO	36-inch (material unknown)	Public CSO/EOF

a – The presence of Outfall 8133 has not been confirmed; the presumed location under a pier cannot be safely accessed (Anderson 2012).

Lateral storm drain lines connect several of the surrounding facilities to the main lines in the SW Dakota Street and SW Idaho Street SD basins and the Duwamish West CSO basin. Outfalls 8132, 8133, 8134, and 8135 are located on Terminal 103. The companies operating at Terminal 103 are the sole dischargers to these outfalls. Additional information regarding stormwater discharge from the operators at Terminal 103 will be discussed in Section 4.0. Outfall 2232 is located on Terminal 105. Based on the storm drain maps available for review, it appears that stormwater from the Ferguson Enterprises facility may discharge to the LDW through this outfall.

SPU has collected storm drain solids samples from the storm drain structures associated with the SW Dakota Street and SW Idaho Street SD basins. The Source Control Work Group[5] (SCWG) compares analytical results from these samples to the SQS and AET. Petroleum hydrocarbon results are compared to the Model Toxics Control Act (MTCA) Method A cleanup standards. Although these regulatory standards are not applicable to storm drain solids, the SCWG uses these values as a benchmark to describe storm drain solids quality (SPU 2010bz). In this document, values described above (SQS/CSL, LAET/2LAET, and MTCA Method A) that are used for comparison to storm drain solids data are referred to as "storm drain screening values." It should be emphasized that none of these values are applied as cleanup levels to storm drain or combined sewer solids. It is important to note that any comparison of this kind is most likely conservative given that sediments discharged from storm drains are highly dispersed in the receiving environment and mixed with the natural sedimentation taking place in the system.

3.1.1 SW Dakota Street SD Basin

The SW Dakota Street SD basin covers approximately 54 acres, spanning west-to-east from 19th Avenue SW to West Marginal Way SW and north to south from the West Seattle Bridge to SW Idaho Street. A portion of the Terminal 105, Pacific Rendering, and Ferguson Enterprises properties are within the SW Dakota Street SD basin (Figure 4). Land uses within the storm drain basin include industrial and commercial properties.

There are 18 facilities within the SW Dakota Street SD basin (Table 1):

- 3 of these facilities are listed on Ecology's CSCSL (1 of these facilities has received an NFA determination from Ecology).
- 1 facility has an active EPA ID number.
- 1 facility is listed on Ecology's LUST and UST lists.

Terminal 105, Pacific Rendering, and Ferguson are located adjacent to the LDW as well as within the SW Dakota Street SD basin; therefore, these properties are discussed in Section 4.0 of this Data Gaps Report. The remaining facilities are upland facilities in the source control area and are discussed in Section 5.0 of this Data Gaps Report.

SPU Storm Drain Sampling

SPU has collected storm drain solids samples from storm drain structures within the SW Dakota Street SD basin between February 2005 and April 2010 (Figure 8). The samples were analyzed for PCB congeners; total and dissolved metals and mercury; and PAHs, phthalates, and other

[5] The SCWG is composed of Ecology, King County, the Cities of Seattle and Tukwila, the Port of Seattle, and EPA.

SVOCs (SPU 2010bz). Several sediment COCs were detected in the samples at concentrations exceeding the storm drain screening values; these COCs are listed below. The chemical concentrations are listed in Table 8.

Chemical	Private Catch Basins		Right-of-Way Catch Basins	
	>SQS/ LAET	>CSL/ 2LAET	>SQS/ LAET	>CSL/ 2LAET
Metals				
Zinc	●	●	●	
PAHs				
2-Methylnaphthalene	●	●	●	●
Chrysene	●			
Phthalates				
BEHP	●	●	●	●
Butyl benzyl phthalate	●	●	●	●
Diethyl phthalate	●			
Dimethyl phthalate	●	●		
Di-n-butylphthalate			●	
Other SVOCs				
Benzoic acid			●	●
Benzyl alcohol			●	●
PCBs				
Total PCBs	●		●	
Petroleum Hydrocarbons				
Heavy-oil range	●			

3.1.2 SW Idaho Street SD Basin

The SW Idaho Street SD basin covers approximately 424 acres, spanning west-to-east from 21st Avenue SW to West Marginal Way SW between RM 0.2 and 0.9 West and from 21st Avenue SW to South Seattle Community College between RM 0.9 and 2.2 West. Between RM 0.2 and 0.3 West, the storm drain basin extends east of West Marginal Way SW. The storm drain basin spans north-to-south from SW Idaho Street to SW Myrtle Street (Figure 4). Land uses within the storm drain basin include industrial, commercial, and residential properties.

There are 17 facilities within the SW Idaho Street SD basin, including the properties with CKD fill (Table 1):

- 5 facilities are listed on Ecology's CSCSL (1 of these facilities has received an NFA determination from Ecology).
- 2 facilities have active EPA ID numbers.
- 1 facility holds an NPDES permit.

- 2 facilities hold a King County Industrial Waste (KCIW) discharge permit.
- 1 facility is listed on Ecology's LUST and UST lists.

General Recycling of Washington is located adjacent to the LDW as well as within the SW Idaho Street SD; therefore, it is discussed in Section 4.0 of this Data Gaps Report. The remaining facilities are upland facilities in the source control area and are discussed in Section 6.0 of this Data Gaps Report.

It is assumed that Ecology assigned a Facility/Site ID number to 17th SW Drums for the disposal of abandoned hazardous waste containers. This facility is not discussed further in the Data Gaps Report.

SPU Storm Drain Sampling

SPU has collected storm drain solids samples from storm drain structures within the SW Idaho Street SD basin between September 2008 and April 2011 (Figure 8). The samples were analyzed for PCB congeners; total and dissolved metals and mercury; and PAHs, phthalates, and other SVOCs (SPU 2010bz). Several sediment COCs were detected in inline, sediment trap, and right-of-way catch basin samples at concentrations exceeding the storm drain screening values; these COCs are listed below. The chemical concentrations are listed in Table 9.

Chemical	Sediment Trap		Inline Grab		Right-of-Way Catch Basins	
	>SQS/ LAET	>CSL/ 2LAET	>SQS/ LAET	>CSL/ 2LAET	>SQS/ LAET	>CSL/ 2LAET
Metals						
Zinc	●					
PAHs						
Phenanthrene	●	●				
Total LPAH	●					
Benzo(a)anthracene	●	●				
Benzo(a)pyrene	●	●				
Benzo(g,h,i)perylene	●	●	●	●		
Total benzofluoranthenes	●	●				
Chrysene	●	●				
Dibenzo(a,h)anthracene	●	●				
Fluoranthene	●	●				
Indeno(1,2,3-cd)pyrene	●	●	●	●		
Pyrene	●	●				
HPAH	●	●				
Phthalates						
BEHP	●	●	●		●	●
Butyl benzyl phthalate	●	●	●		●	●
Other SVOCs						
4-Methylphenol	●	●			●	●

Chemical	Sediment Trap		Inline Grab		Right-of-Way Catch Basins	
	>SQS/ LAET	>CSL/ 2LAET	>SQS/ LAET	>CSL/ 2LAET	>SQS/ LAET	>CSL/ 2LAET
Benzoic acid					●	●
Benzyl alcohol					●	●
Hexachlorobenzene					●	●
PCBs						
Total PCBs	●		●			
Petroleum Hydrocarbons						
Heavy-oil range	●		●			

3.1.3 Combined Sewer Overflow

KCIW estimates that, on a county-wide basis, industrial discharges comprise less than 0.5 percent of the total volume of a CSO event (Tiffany 2008). Typically, domestic users of the combined sewer system contribute a larger percentage of the chemical loading than industrial users. For example, KCIW testing has indicated that industrial users of the combined sewer system contribute less than 10 percent of the phthalate load, with the remainder coming from uncontrollable sources such as domestic users.

Although COCs from individual industrial and commercial facilities within the CSO basin are significantly diluted, the cumulative effects of CSO events could contribute to recontamination of sediments associated with the Spokane Street to Kellogg Island source control area. Industrial and commercial facilities discharging industrial wastes and/or stormwater to the combined sewer system are therefore considered to represent potential but relatively minor sources of sediment recontamination.

Duwamish West CSO

The Duwamish West CSO basin covers approximately 860 acres. On the west side of the LDW, the CSO basin spans west-to-east from Delridge Way SW to the LDW. Park land in this area is not included in the CSO basin (Figure 6 and Appendix C, Figure C-1). From north-to-south the CSO basin spans from 26th Avenue SW (north of the West Seattle Bridge) to SW Holly Street (western side of the basin) and Terminal 115 (eastern side of the basin). The Duwamish West CSO basin includes Harbor Island (Appendix C, Figure C-1). Land uses within the CSO basin include industrial, commercial, and residential properties. The Chelan Avenue and Harbor CSO basins are secondary and tertiary contributors to the Duwamish West CSO basin (King County 2009).

The Duwamish West CSO is an overflow relief structure associated with the Duwamish Siphon. The Duwamish Siphon directs flows from the west side of the LDW to the Duwamish Pump Station on the east side of the LDW (King County 2009). From 2005 to 2010, combined wastewater and stormwater overflows were discharged through the Duwamish West CSO less than once per year, with an annual average volume of approximately 0.60 mgy (Table 5) (King County 2011a). The most recent CSO event at the Duwamish West CSO was in December 2007;

approximately 6.3 million gallons discharged through the CSO during a three-day storm (King County 2008).

King County collected four in-pipe water samples from the Duwamish Siphon Forebay between September 2007 and May 2009. A CSO event coincided with the December 2007 sampling event. The samples were analyzed for PCB congeners; total and dissolved metals and mercury; and PAHs, phthalates, and other SVOCs (King County 2008, 2009, 2011a,b). Several sediment COCs were detected in the samples; chemicals and concentrations are listed in Table 10.

Ecology has assigned Facility/Site Identification numbers to 143 facilities/properties within the Duwamish West CSO basin (Table C-1):

- 31 facilities are listed on Ecology's CSCSL (7 of these facilities have received an NFA determination from Ecology).
- 42 facilities have active EPA ID numbers.
- 24 facilities hold NPDES permits.
- 7 facilities have KCIW discharge authorizations or permits.
- 21 facilities are listed on Ecology's LUST list.
- 43 facilities are listed on Ecology's UST list.

These facilities are listed by category and their locations are shown on the maps in Appendix C. Fifty-two of the 143 facilities are adjacent or upland properties within the Spokane Street to Kellogg Island source control area. Activities at 50 of these facilities/properties are discussed in Sections 4.0 through 7.0 of this Data Gaps Report.[6] Eighty-eight of the 143 facilities with Ecology Facility/Site ID numbers are included in a source control area for which a Data Gaps Report or RI Report has already been prepared (Table C-1). Although activities at these 88 facilities, such as Duwamish Shipyard or Lafarge Cement, may result in discharges that are eventually conveyed to the Duwamish West CSO, they are not discussed further in this Data Gaps Report because source control actions (if any) have been identified in previous reports and are considered to be adequate for source control with regard to the Duwamish West CSO.

Five facilities located within the Duwamish West CSO basin are not discussed in this or other Data Gaps Reports. Island Tug & Barge Company, System Supply Spokane Street, and West Waterway Terminals are located north of Spokane Street and adjacent to the West Waterway and Elliott Bay.

Facility/Site ID	Facility Name
33133593	Cooper Elementary School
6681862	Island Tug & Barge Company
41742472	Seattle School District Cooper Elementary
72619293	System Supply Spokane Street
57193311	West Waterway Terminals

[6] Note that several facilities may have historically operated or currently operate at a single property; therefore, not all facilities are identified by name on Figure 4. All facility locations are identified in Appendix C.

None of these facilities are listed on the CSCSL. Cooper Elementary School is listed on the LUST and UST lists; however, given the distance between this facility and the LDW, the potential for sediment recontamination due to the presence of contaminated soil and/or groundwater from the LUST is very low.

The Standard Industrial Classification (SIC) and North American Industry Classification System (NAICS) codes associated with the activities performed at these companies are listed in Appendix C.

Additionally, an unknown number of undocumented industrial operations may take place within the Duwamish West CSO basin. Undocumented industrial activities may be an ongoing source of contaminants to sediments near the Spokane Street to Kellogg Island source control area.

Chelan and Harbor CSOs

The Chelan and Harbor CSO basins are secondary and tertiary contributors to the Duwamish West CSO basin. The Chelan CSO basin covers approximately 2,471 acres, spanning west-to-east from 35th Avenue SW to 9th Avenue SW and north-to-south from Port of Seattle Terminal 5 to SW Roxbury Street (Appendix D, Figure D). The Harbor CSO basin covers approximately 470 acres, spanning west-to-east from California Avenue SW to Harbor Avenue SW and north-to-south from SW Olga Street to SW Findlay Street (Appendix E, Figure E). Land uses within these CSO basins include industrial, commercial, and residential properties.

The Chelan CSO facilities are listed by category in Appendix D and their locations are shown on the maps in Appendix D. The following industrial and commercial facilities within the Chelan CSO basin have been identified:

- 111 facilities have been assigned Ecology Facility/Site ID numbers.
- 23 facilities are listed on Ecology's CSCSL.
- 15 facilities have active EPA ID numbers.
- 8 facilities hold an NPDES permit.
- 2 of these facilities have KCIW discharge authorizations or permits.
- 16 of these facilities are listed on Ecology's LUST list.
- 36 of these facilities are listed on Ecology's UST list.

The Harbor CSO facilities are listed by category in Appendix E and their locations are shown on the maps in Appendix E. The following industrial and commercial facilities within the Harbor CSO basin have been identified:

- 47 facilities have been assigned Ecology Facility/Site ID numbers.
- 10 facilities are listed on Ecology's CSCSL.
- 4 facilities have active EPA ID numbers.
- 1 facility holds an NPDES permit.
- 9 of these facilities are listed on Ecology's LUST list.
- 21 of these facilities are listed on Ecology's UST list.

3.1.4 Potential for Sediment Recontamination

SW Dakota Street SD Basin

Catch basin storm drain solids sampling has indicated that concentrations of sediment COCs exceeding storm drain screening values are present in the SW Dakota Street SD basin. These COCs may be discharged to the LDW through Outfall 2149 and the drainage channel associated with SW Dakota Street SD basin and may represent a source of contaminants to the sediments adjacent to the Spokane Street to Kellogg Island source control area.

Zinc, PCBs, BEHP, butyl benzyl phthalate, and benzyl alcohol concentrations that exceed screening levels are present in both LDW sediment samples near Outfall 2149 at the head of the drainage channel associated with the SW Dakota Street SD basin and near Outfall 2233 at the mouth of the drainage channel (Figure 7b) and in storm drain solids samples collected from the SW Dakota Street SD system. Concentrations of acenaphthene, benzo(g,h,i)perylene, chrysene, fluorene, fluoranthene, indeno(1,2,3-cd)pyrene, phenanthrene, total HPAHs, and PCBs also exceeded screening levels in a sediment sample collected from the LDW adjacent to Outfall 2233.

SW Idaho Street SD Basin

Storm drain solids sampling has indicated that concentrations of sediment COCs exceeding storm drain screening values are present in the SW Idaho Street SD basin. These COCs may be discharged to the LDW through Outfall 2147 and may represent a source of contaminants to the sediments adjacent to the Spokane Street to Kellogg Island source control area.

PCB concentrations that exceed screening levels are present in both LDW sediment samples near Outfall 2147 (Figure 7b) and in storm drain solids samples collected from the SW Idaho Street SD system.

Duwamish West CSO Basin

Chemical concentrations in the combined sewer discharge are heavily diluted prior to discharge to the LDW. Therefore, the potential for sediment recontamination via this pathway is likely to be lower than for direct discharges from adjacent facilities and the SW Dakota Street and SW Idaho Street SD basins. Three CSO events occurred from the Duwamish West CSO basin since 2005 (King County 2011a). While the cumulative effects of CSO discharges could contribute to recontamination of sediments near the Spokane Street to Kellogg Island source control area, the potential for sediment recontamination via this pathway is low due to the highly diluted nature of the discharge and the infrequent occurrence of CSO events.

3.1.5 Data Gaps

- Additional information is needed to determine if undocumented industrial operations are occurring within the SW Dakota Street and SW Idaho Street SD basins that may be an ongoing source of sediment recontamination.

3.2 Private and Unresolved Outfalls

Outfall No.	Outfall Owner	Diameter/Material	Outfall Type
2139	Lafarge Cement	6-inch ductile iron	Private SD
2140	NA	8-inch steel	Unknown SD
2141	NA	8-inch steel	Unknown SD
2142	NA	8-inch steel	Unknown SD
2143	NA	8-inch steel	Unknown SD
2144	NA	10-inch ductile iron	Unknown SD
2145	NA	4-inch ductile iron	Unknown SD
2146	NA	6-inch ductile iron	Unknown SD
2157	General Recycling	24-inch concrete	Private SD

Outfall 2139 is operated by Lafarge Cement. Discharge from this outfall to the LDW is addressed in the Kellogg Island to Lafarge Source Control Data Gaps Report. Lafarge Cement planned to abandon Outfall 2139 in December 2010; however, it has not been confirmed if the outfall has been abandoned (SAIC 2011).

General Recycling discharges stormwater to the LDW through one outfall (General Recycling 2011b), which is assumed to be Outfall 2157. Outfalls 2144, 2145, and 2146 are located on the General Recycling facility. It appears that these outfalls are not in use. Additional information regarding General Recycling is available in Section 4.0.

Evergreen Trails appears to discharge stormwater from its facility to either Outfall 2140 or 2141, based on the facility map provided in the company's Stormwater Pollution Prevention Plan (SWPPP) (Evergreen Trails 2012). Additional information regarding Evergreen Trails is available in Section 4.0.

3.2.1 Potential for Sediment Recontamination

Little information was available to determine whether seven outfalls of unknown or unresolved origin are abandoned or active. Active outfalls with undocumented drainage have the potential to transport contaminants present in stormwater (if any) to LDW sediments near the Spokane Street to Kellogg Island source control area.

3.2.2 Data Gaps

Information needed to assess the potential for sediment recontamination associated with the unknown/unresolved storm drain outfalls is listed below:

- Information regarding the status of the seven unresolved outfalls is needed to determine if they are operational or have been abandoned.
- Additional information is needed to determine if storm drain lines are connected to the unresolved outfalls and the associated drainage areas of these outfalls, if any, to determine the potential for sediment recontamination via the stormwater pathway.

Data gaps related to Outfall 2157 are listed with General Recycling in Section 4.0.

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4.0 Potential for Sediment Recontamination from Adjacent Properties

The LDW shoreline spans approximately 1 mile of the source control area. Parcels along the shoreline are a mix of city parks and industrial properties. The following facilities/properties are adjacent to the LDW and have been identified as potential sources of contaminants to sediments near with the Spokane Street to Kellogg Island source control area:

- Riverside Mill LLC property and it tenants
  - Bob's Boat Shop
  - United Motor Freight
- BNSF Railroad Right-of-Way
- Port of Seattle Terminal 103 and its tenants
  - General Construction Company
  - Northwest Aggregates
- Global Diving & Salvage
- Port of Seattle Terminal 105
- Pacific Rendering
- Ferguson Enterprises
- General Recycling of Washington
- Former Seaboard Lumber Property, which includes:
  - Evergreen Trails
  - Herring's House Park
- Port of Seattle Terminal 107 and its tenant
  - Alaska Marine Lines

Tax parcels in the vicinity of the Spokane Street to Kellogg Island source control area are shown in Figures 5a and 5b, identified by the last four digits of the tax identification number. Aerial and oblique photographs of the source control area for the years 1936, 1946, 1956, 1960, 1969, 1974, 1980, 1990, 1993, 1995, 2000, 2001, 2004 and 2006 are provided in Appendix B.

The potential for sediment recontamination associated with each of these facilities is discussed in the following sections. Additional information needed to assess the potential for sediment recontamination is also identified.

4.1 Riverside Mill LLC Property

Facility Summary: Riverside Mill LLC Property	
Tax Parcel No.	7666703290, 7666703321
Address	3290: 3800 West Marginal Way SW 98106 3321: 3835 West Marginal Way SW 98106
Property Owner	3290 & 3321: Riverside Mill LLC
Parcel Size	3290: 6.23 acres (271,281 sq ft) 3321: 0.09 acres (3,727 sq ft)

Facility Summary: Riverside Mill LLC Property	
Facility/Site ID	2093: Seattle Steel Industrial Fasteners 4091: BASF at United Motor Freight 10931: Bob's Boats 89431534: United Motor Freight
SIC Code(s)	34: Fabricated Metal Products (Seattle Steel Industrial Fasteners) 4214: Local Trucking with Storage (United Motor Freight) 6552: Subdividers and Developers, NEC (Seattle Steel Industrial Fasteners)
EPA ID No.	WAH000037353 – active (Bob's Boats) WAH000039153 – active (BASF at United Motor Freight) WAD980979819 – inactive (Seattle Steel Industrial Fasteners) WAD988507620 – active (United Motor Freight)
NPDES Permit No.	None
UST/LUST ID No.	UST 9771 – inactive (Seattle Steel Industrial Fasteners) LUST 4573 (3800 West Marginal Way Seattle)

Riverside Mill LLC owns two parcels adjacent to the LDW. Riverside Mill leases the property to Bob's Boat Shop and United Motor Freight. The property is bordered by West Marginal Way SW to the east, the West Seattle Bridge to the north, the LDW to the west and the BNSF Right-of-Way to the south.

Three buildings were constructed on the property in 1948. These buildings include a 35,822 sq ft warehouse, a 35,000 square foot (sq ft) warehouse, and a 25,188 sq ft warehouse. Based on aerial photographs, the property appears to be almost entirely paved.

This facility is located tidal flats that were backfilled during the early 1900s (Olympus 1993). Based on aerial photographs, the entire property is paved and the shoreline is reinforced with riprap.

4.1.1 Current Operations

Bob's Boat Shop and United Motor Freight are the current operators at this property. United Motor Freight appears to sublet a portion of its facility to BASF.

Bob's Boat Shop repairs and rigs boats. Fiberglass repair, engine replacement, and painting are performed at the facility. Boats up to 30 tons in weight can be hauled out at the facility for repair (Bob's Boat Shop 2012). All work appears to be performed in its indoor repair facility

United Motor Freight is a transportation, warehousing, and rigging company. The company transports containers from "pier to door" to points in Washington, Oregon, and British Columbia. Warehouse space consists of 6 acres: 3 acres are covered and 3 acres are in the outdoor yard. Cranes, forklifts, and a railroad ramp are used in operations (United Motor Freight 2012).

BASF is a chemical manufacturing company. The EPA ID No. assigned to BASF became active on August 12, 2011. Information regarding BASF's operations at this property was not available for review.

4.1.2 Historical Operations

Industrial activities have been performed at this property since at least 1905. A U.S. Coast Guard base was historically located on the property (Foster 1945).

Seattle Steel Company and Seattle Car Manufacturing

Seattle Steel Company constructed the original steel mill at the property and began operations in May 1905. Scrap steel was the principal feed stock. Seattle Car Manufacturing originally operated at this property but moved to Renton in 1908, where the company was later renamed Pacific Car and Foundry Company (PACCAR). In 1913, Seattle Steel Company was renamed Pacific Coast Steel (HistoryLink 2001).

Pacific Coast Forge Company and Bethlehem Steel

Bethlehem Steel purchased the steel mill from Pacific Coast Steel in 1930 (HistoryLink 2001) and initially operated as the Pacific Coast Forge Company. The company manufactured nuts and bolts. The plant discharged waste cutting oil directly into the LDW until the U.S. Coast Guard notified Pacific Coast Forge that this was not an acceptable disposal practice. Pacific Coast Forge then began discharging the oil into a sand pit located on the property. Foster noted that the sand pit would eventually become saturated with oil, at which point the waste oil would seep into the LDW (Foster 1945).

The Pacific Coast Forge Company produced a large amount of acid waste generated through a galvanizing plant and dipping wire. Two tanks were used to hold the acid waste: one with an 875-cubic foot capacity (galvanizing waste) and one with a 58-cubic foot capacity (dipping waste). Acid waste in the larger tank was discharged to the sand pit every two weeks. Acid waste from the smaller tank was transferred to a settling box every 4 to 6 weeks. The settling box drained to the LDW (Foster 1945).

In the 1940s, Bethlehem Steel apparently began operating the mill under the name Bethlehem Pacific Coast Steel, and later as Bethlehem Steel. Facility plans from the 1960s and 1970s show that two spent acid tanks (Tank 29), a sulfuric acid tank (Tank 28), and two LPG tanks (Tank 59) were installed adjacent to the LDW at the southeast corner of the property (Figure 9, Table 11). An 8,000-gallon standby oil UST (Tank 27) was present south of the manufacturing building and north of the current BNSF property (Figure 9). Railroad tracks extended from west to east across the property and from north to south near the LDW. The property was paved, with the exception of a gravel parking area at the northwest corner of the property (Bethlehem Steel 1975).

In June 1971, Bethlehem Steel informed the USACE Seattle District that the company did not use the LDW to transport materials to or from the facility and had no plans to use the LDW (USACE 1971). Bethlehem Steel ceased operations in 1985 (HistoryLink 2001).

Seattle Steel Industrial Fasteners

Seattle Steel purchased the facility from Bethlehem Steel in 1985. Seattle Steel manufactured bolts, railroad spikes, and steel fasteners. The product line was reduced to railroad spikes in 1986, which ended metal plating and finishing activities previously performed at the facility (Tetra Tech 1988). Seattle Steel ceased operations at this location in 1991. The name of the facility was changed to **Duwamish Harbor Facilities** (CEM Development 1992). The Seattle Steel facility was also known as **Birmingham Steel** (GeoEngineers 1997).

The facility operated a maintenance shop for metalworking and heat-treating metal products; a machine shop used to fabricate machine parts for Seattle Steel; and fabrication areas, a metal finishing area, and a railroad spike forge. Seattle Steel maintained the sulfuric acid tank (Tank 28) and a waste acid crystal area. Waste acid was removed from the property in 1986 and the tank was decommissioned (Tetra Tech 1988).

In September 1985, Seattle Steel submitted a notification of dangerous waste activities as a generator. The hazardous wastes generated were spent pickle liquor and spent halogenated solvent (Seattle Steel 1985). In July 1987, a revised notice was submitted, indicating that the only hazardous waste generated at the facility was waste petroleum naphtha. Seattle Steel recycled all of the scrap metal generated at another Seattle Steel facility (Tetra Tech 1988).

Two USTs were located on the property, an 8,000-gallon diesel tank (Tank 27) and a 4,000-gallon cooling oil tank (Tank 36). The 4,000-gallon UST was installed beneath one of the buildings. The installation dates for these USTs are unknown. Both USTs were removed in 1993 (Olympus 1993).

Additional Historical Information

Pacific Cargo manufactured and repaired heavy-duty truck trailers at the facility in the 1990s (Ecology 1994b). Ecology records indicate that the property was redeveloped prior to June 1998 (Ecology 1998b). Information regarding the property redevelopment was not available for review.

In December 1995, a mix of oil and rainwater was accidentally discharged into a drainage ditch along the gravel road on the BNSF property via five drainage pipes from the Riverside Mill property. A remedial excavation was performed on the BNSF property (PGG 1996).

4.1.3 Regulatory History

Compliance Inspections

Ecology performed a Resource Conservation and Recovery Act (RCRA) compliance inspection at Seattle Steel on June 9, 1987. Ecology requested the following information and corrective actions after the inspection (Ecology 1987a):

- Submit a revised Notification of Dangerous Waste Activities form to reflect the changes in the operations (product line reduced to railroad spikes).

- Submit data to support using a waste number (WP01) for extremely hazardous waste for halogenated hydrocarbons in the 1986 Annual Waste Report.
- Provide information regarding backflow prevention equipment on the main water line to the facility: has the equipment been installed and on which portion of the line; and date that the equipment last checked.

On August 10, 1987, Seattle Steel submitted the revised Notification of Dangerous Waste Activities form and confirmed the presence of backflow prevention equipment on the main water line. The equipment was scheduled to be checked within the week. In addition, Seattle Steel clarified that the wastes classified as WP01 were generated at a different Seattle Steel facility (Seattle Steel 1987).

Tetra Tech, on behalf of EPA, conducted a RCRA compliance evaluation inspection at Seattle Steel on May 18, 1988. During the inspection the following wastes were found (Tetra Tech 1988):

- Five drums of "acid crystals" with an assumed weight of 1,000 pounds.
- One drum of unidentified sludge with an assumed weight of 700 pounds (present in the North Fabricating Area).
- Caustic soda stored in a 55-gallon drum with an assumed weight of approximately 450 pounds. Caustic soda had spilled onto the floor in the metal finishing room.
- Seven PCB oil-bearing electrical capacitors.

At the conclusion of the inspection the following violations were reported (Tetra Tech 1988):

- Seattle Steel did not inspect hazardous waste drums on a weekly basis, as specified under 40 CFR 265.174.
- The date of accumulation was not marked on any of the drums of waste acid crystals.
- Wastes were being stored in unmarked drums.
- Wastes were being stored in damaged drums (unidentified sludge).
- Wastes were being stored in drums that the contents can react with (acid crystals in steel drums).
- Seattle Steel's 1986 annual report did not include any information regarding 1,1,1-trichloroethane waste.
- Seattle Steel did not have a contingency plan for the facility.

In 1998, Ecology indicated that cleanup at the property was complete and the RCRA Identification number (WAD980979819) was no longer needed for the property (Ecology 1998b).

UST Removal and Cleanup

In June 1994, Ecology determined that no further actions were necessary at the property with regard to the removal of the 4,000- and 8,000-gallon USTs. A No Further Action (NFA) letter was issued to the property owner, SSI Real Estate (Ecology 1994c).

4.1.4 Environmental Investigations and Cleanups

Two environmental investigations and cleanups have been performed at this property. Sample locations are shown on Figure 10. A summary of all chemicals detected in soil at the property is included in Table F-1.

Underground Storage Tank Removal (1993)

The 8,000-gallon diesel UST (Tank 27) was removed in June 1993 (Figure 10, Inset A). Three soil samples were collected from the bottom and sidewalls of the excavations. The samples were analyzed for diesel-range hydrocarbons; the concentration in one soil sample exceeded the 1991 MTCA Method A cleanup levels (Olympus 1993).

In July 1993, a remedial excavation was performed at the 8,000-gallon UST pit. Approximately 5 cubic yards of soil were excavated. Soil samples were collected from the stockpile (4 samples) and the bottom of the excavation (1 sample) and analyzed for diesel-range hydrocarbons, which were not detected in any of the samples. The excavated soil was used as backfill (Olympus 1993).

The 4,000-gallon cooling oil UST (Tank 36) was removed in August (Figure 10, Inset B). Three soil samples were collected from the bottom and sidewalls of the excavations. The samples were analyzed for heavy oil-range hydrocarbons; the concentration in one soil sample exceeded the 1991 MTCA Method A cleanup levels (Olympus 1993).

In November 1993 a remedial excavation was performed at the 4,000-gallon UST pit. Approximately 5 cubic yards were excavated. One confirmation sample was collected and analyzed for heavy oil-range hydrocarbons, which exceeded the 1991 MTCA Method A cleanup level. Approximately 40 cubic yards of soil, from the August and November excavations, were removed from the property (Olympus 1993).

After reviewing the cleanup report and performing an inspection, Ecology issued an NFA designation with regard to the UST removals (Ecology 1994b).

Removal of PCB- and Lead-Contaminated Soil (~1999)

An Owner/Agency Certification of Environmental Remedial Action submitted to Ecology in August 1999 indicates that soil contaminated with PCBs and lead was excavated and removed from the property. No additional information regarding these removal activities was available for review (EPI 1999).

4.1.5 Potential for Sediment Recontamination

The potential for sediment recontamination via this property is summarized below by transport pathway. Sediment samples have not been collected adjacent to or downstream from the property. The quality of the sediment in this area is unknown.

Stormwater and Surface Runoff

Stormwater and surface runoff from at least the southern portion of the property appears to be conveyed to a drainage ditch on the adjacent BNSF property, which appears to discharge to the LDW. Contaminants in stormwater/surface runoff, if any, could recontaminate LDW sediments.

Spills

United Motor Freight and Bob's Boat Shop perform overwater activities. Spills along the shoreline loading/unloading areas have the potential to enter the LDW. Spills from loading and unloading activities are a potential pathway for sediment recontamination.

Soil and Groundwater

Previous environmental investigations indicate that soil contaminated with petroleum hydrocarbons, PCBs, and lead has been removed from the property. Records describing the nature and extent of the PCB and lead contamination were not available for review. Groundwater beneath property has not been evaluated. The potential for sediment recontamination via groundwater discharge is unknown.

Bank Erosion/Leaching

The shoreline of the property is reinforced with riprap. Contaminants in bank soils, if any, may leach to the LDW. The potential for sediment recontamination via leaching is unknown.

4.1.6 Data Gaps

Information needed to assess the potential for sediment recontamination associated with current or historical operations at the property is listed below:

- A facility plan showing the locations of catch basins and storm drains is needed to evaluate the potential for contaminant transport to the LDW via the stormwater discharge and surface runoff pathways.
- Information regarding the excavation and removal of soil contaminated with PCBs and lead is needed to evaluate the potential for sediment recontamination via the groundwater discharge pathway.
- Sediment samples from the LDW adjacent to the Riverside Mill property are needed.

4.2 BNSF Railroad Right-of-Way

Facility Summary: BNSF Railroad Right-of-Way	
Tax Parcel No.	7666703320
Address	None
Property Owner	BNSF
Parcel Size	1.31 acres (56,994 sq ft)
Facility/Site ID	None

Facility Summary: BNSF Railroad Right-of-Way	
SIC Code(s)	None
EPA ID No.	None
NPDES Permit No.	None
UST/LUST ID No.	None

This parcel is located to the south of the Riverside Mill property and to the north of Terminal 103. The parcel is bordered by West Marginal Way SW to the west and the LDW to the east (Figure 9).

4.2.1 Current and Historical Operations

Based on the aerial photograph review (Appendix B), a railroad spur has been present on the property since at least 1936. A rail trestle drawbridge spans the LDW from the eastern border of the right-of-way to the western shoreline of Harbor Island. The property is gravel-covered beneath the railroad tracks. The property is paved at the western side, adjacent to West Marginal Way SW. The remainder of the property is unpaved. Concrete footings are present at the shoreline to support the railroad trestle. A small area of exposed soil is present at the shoreline.

A drainage ditch is present along a gravel road on the property (PGG 1996). The ditch, which appears to be unlined, discharges to the LDW.

4.2.2 Regulatory History

No information regarding regulatory interactions for this property was available for review.

4.2.3 Environmental Investigations and Cleanups

Oil Spill Cleanup (1995)

In December 1995, a mix of oil and stormwater was accidentally discharged into a drainage ditch along the gravel road on the BNSF property via five drainage pipes from the Riverside Mill property. A remedial excavation was performed to remove oil-contaminated soil. Approximately 20 tons of soil were removed from the BNSF property. Seventeen confirmation soil samples were collected and analyzed for petroleum hydrocarbon identification. Diesel- and heavy oil-range hydrocarbons were identified at concentrations below MTCA cleanup levels (PGG 1996). Sample locations are shown on Figure 10. Laboratory data were not available for review.

Diesel Spill Cleanup (2006)

In July 2006, diesel fuel was spilled when a train collided with a tractor-trailer, damaging a saddle tank. The accident apparently occurred near one of the driveways onto the Riverside Mill property. Approximately 75 to 100 gallons of fuel were spilled. The release was contained and approximately 6 tons of diesel-contaminated soil was excavated. The contaminated soil was removed from the property (Emergency Response & Training Solutions 2006). Confirmation soil samples were not collected. The spill did not flow to the storm drains on the Riverside Mill property or to the drainage ditch on the BNSF property (Ecology 2006e).

4.2.4 Potential for Sediment Recontamination

The potential for sediment recontamination via this property is summarized below by transport pathway. PCB concentrations exceeded the SQS in a surface sediment sample collected immediately upstream of the property. Sediment samples have not been collected adjacent to or downstream from the property. The quality of the sediment in this area is unknown.

Stormwater and Surface Runoff

Stormwater enters a drainage ditch on the property, which appears to discharge to the LDW. Contaminants in stormwater, if any, may represent a potential source for sediment recontamination.

Spills

If a spill occurs at the property, contaminants may infiltrate the ground surface. Two remedial excavations have been performed to remove soils contaminated by spilled products. If a spill occurs during a storm, contaminants may be entrained in stormwater, rather than infiltrate the ground surface. Contaminants that have infiltrated the ground surface may be conveyed to the LDW via groundwater discharge. Cleanup activities in response to past spills appear to have been immediate and thorough, minimizing the potential impacts to the property and the LDW.

Soil and Groundwater

Two petroleum spills resulted in environmental impacts to the property; contaminated soils were excavated and removed. Given the industrial history of the property, there is a potential for soil and groundwater contamination.

Bank Erosion/Leaching

The bank at the property is reinforced with concrete beneath the railroad trestle. Exposed soil is present to the south of the railroad trestle. Contaminants in bank soil, if any, may represent a potential source for sediment recontamination.

4.2.5 Data Gaps

Information needed to assess the potential for sediment recontamination associated with current or historical operations at the property is listed below:

- Additional information is needed to determine whether the drainage ditch discharges to the LDW.
- Sediment samples from the LDW adjacent to the BNSF Railroad Right-of-Way are needed.

4.3 Port of Seattle Terminal 103

Facility Summary: Port of Seattle Terminal 103	
Tax Parcel No.	7666703440
Address	3340: 3838 West Marginal Way SW 98106 Operating: 3840 West Marginal Way SW 98106
Property Owner	Port of Seattle
Parcel Size	8.07 acres (352,638 sq ft)
Facility/Site ID	2302559: Glacier Northwest 7754458: Northwest Aggregates 94648691: General Construction
SIC Code(s)	1411: Dimension Stone (Northwest Aggregates) 1442: Construction Sand and Gravel (Northwest Aggregates) 1629: Heavy Construction, NEC (General Construction, Northwest Aggregates) 5032: Wholesale Sand and Gravel (Glacier Northwest)
EPA ID No.	WAD982658445 – active (General Construction) CRK000057980 – active (Glacier Northwest)
NPDES Permit No.	WAR002227 – active (Northwest Aggregates) WAG503215 – inactive (Fletcher General Construction) WAG503222 – inactive (Fletcher General Construction)
UST/LUST ID No.	LUST 3596 – inactive (Fletcher General Construction, Northwest Aggregates) UST 1951 – inactive (General Construction, Northwest Aggregates)

Terminal 103 is adjacent to the LDW and consists of an 8.07-acre parcel, which is owned by the Port. Terminal 103 is bordered by the LDW to the east, the Terminal 105 Park to the south, Global Diving & Salvage and West Marginal Way SW to the west, and the BNSF Railroad Right-of-Way to the north. There are five buildings located on this facility:

- A 1,992 sq ft warehouse built in 1937
- A 10,044 sq ft light industrial manufacturing building, built in 1939
- A 1,056 sq ft storage garage, built in 1943
- A 16,100 sq ft warehouse built in 1990
- A 6,000 sq ft warehouse built in 1999

The Port purchased the property and improvements from Fletcher General Construction in 1997 (General Construction 2009). The parcel is leased to two companies, General Construction Company and Northwest Aggregates (also known as CalPortland Seattle Aggregate Yard). Figure 11 shows the locations of the Terminal 103 tenants.

Parcel 3442, currently occupied by Global Diving & Salvage, was historically part of Terminal 103. The Port sold the property to Marginal Group LLC in 1998. General Construction leased parcel 3442 prior to the sale (Port of Seattle 1998).

4.3.1 Current Operations

Terminal 103 supports industrial marine operations that are water-dependent. A marine construction base is present on the northern portion of the terminal. Construction barges, mounting cranes, dock construction equipment, and dredging equipment are moored and maintained at the northern shoreline. A 330-foot long dock is present for transferring construction equipment and gear to and from land. A 50-foot long loading ramp is present on the southern portion of the terminal. The loading ramp is used to unload bulk construction materials, such as sand and gravel, from barges. Six dolphins are available at the shoreline for barge moorage. The bank at Terminal 103 is stabilized and reinforced with riprap (Port of Seattle 2009).

In late 2006 and early 2007, Terminal 103 underwent a repair for the moorage of the cargo terminal. The work included the replacement of eight steel support pilings for the barge unloading ramp and conveyor system, the removal of the old steel 12-inch pipe piling and cross bracing on the piling and the installation of new 12-inch steel pipe piling and bracing at the same location (City of Seattle 2006).

The shoreline of the terminal is constructed with metal sheetwall (CalPortland 2009).

Stormwater

Stormwater from Terminal 103 is discharged to the LDW through four outfalls (Outfalls 8132 through 8135) on Port property (Section 3.0). The storm drain system at the terminal includes three manholes, 13 catch basins, two gravel drainage ditches, one monitoring sump, and one settling vault with a gravel swale. All catch basins and manholes are equipped with filter socks. The gravel drainage channels are connected to Outfalls 8134 and 8135 (Figure 12) (Phoinix 2008). According to CalPortland's SWPPP, stormwater and process water are contained behind the metal sheetwall at the shoreline. Water can flow over the sheetwall (CalPortland 2009).

In March 2008, the Port adopted Resolution No. 3596. This resolution prohibits the construction, use, maintenance, or continued existence of illicit connections to the storm drain system at Terminal 103 and other Port properties, prohibits illicit discharges to surface water or the storm drain system, and prohibits illegal dumping on Port property. Illicit connections to the storm drain system include sanitary sewer and floor drain connections. Examples of fully prohibited discharges to surface water and the storm drain system include the following (Port of Seattle 2008):

- Solid, human, and animal wastes;
- Automotive and petroleum products;
- Flammable and explosive materials;
- Metals in excess of naturally occurring amounts and chemicals not normally found in uncontaminated water;
- Solvents, degreasers, paint products, ink, commercial and industrial cleaning products; and
- Steam-cleaning waste, laundry waste, soap, detergent, ammonia, and chlorine.

Some discharges to surface water or the storm drain system, which are normally prohibited, may be allowed provided one of the following conditions is met (Port of Seattle 2008):

- The discharge is from a potable water source, has been de-chlorinated and pH-adjusted, and is controlled to prevent resuspension of sediments.
- The discharge is from lawn water or irrigation runoff and is minimized to the maximum extent practicable.
- The discharge is from streets, sidewalks, and external building wash downs, provided the water does not contain detergents and the volume is minimized to the maximum extent practicable.

Northwest Aggregates has primary responsibility for maintaining the storm drain system at its facility on the terminal, in accordance with its NPDES permits. This includes cleaning and maintaining catch basins. General Construction is not required to obtain coverage under the ISGP, due to its SIC code. General Construction has completed a SWPPP that complies with city of Seattle stormwater pollution prevention code; which is required of all Port tenants (Port of Seattle 2012b).

Underground and Aboveground Storage Tanks

Sixteen known storage tanks and one suspected storage tank have been installed on Terminal 103 property. Six of the storage tanks are ASTs, five of these ASTs (Tanks 1 through 5) are actively used by General Construction. Seven fuel USTs and one heating oil UST have been removed from the property. The status of one heating oil UST is unknown. In addition, one UST has been removed and one suspected UST may be present on parcel 3442 (GeoEngineers 1997; SoundEarth 2011b). The locations of these storage tanks are shown on Figure 9. Additional details for these storage tanks are provided in Table 11.

General Construction Company

The original General Construction began operating at the property in the 1920s (SoundEarth 2011b). Between 1987 and 1998, the company was known as **Fletcher General Construction** (Coastal Tank Cleaning 1994; GeoEngineers 1997).

The current General Construction began operating at this location in July 1996, as a tenant to Fletcher General Construction. General Construction became a tenant to the Port in February 1997, following the sale of the property to the Port. Despite the similarities in name and logos, the current General Construction is not affiliated with Fletcher General Construction (General Construction 2009).

The company stores and maintains marine construction equipment at the property. Products used in the operation/maintenance of the heavy equipment include petroleum products, batteries, antifreeze, solvents, brake pads, and rubber tires. Other types of potential contaminants stored at the facility include fuels, paints, scrap metals, and cleaning products. Three cranes and six forklifts are used at the property (General Construction 2009).

General Construction maintains a wash bay, fueling station, vehicle repair shop, new and used oil storage stations, and a drum storage area (Phoinix 2008). Fletcher General Construction installed an oil/water separator in 1994. The oil/water separator is plumbed to the wash bay and the sanitary sewer (General Construction 2009).

Northwest Aggregates/Seattle Aggregate Yard

In July 1995, Northwest Aggregates, began leasing the southern portion of this property from Fletcher General Construction. **Lone Star Northwest, Inc.** was the parent company of Northwest Aggregates at this time (Lone Star 1995). In December 1999, Lone Star changed its name to Glacier Northwest (Glacier Northwest 2000). Between December 1999 and approximately 2009, the company operated as **Glacier Northwest Aggregates** and **Glacier Northwest, Seattle Aggregate Yard** at this location. Glacier Northwest was acquired by CalPortland in 2006. Since approximately 2009, the facility has been known as the **CalPortland Seattle Aggregate Yard**.

Aggregate is stockpiled at the yard and stored in bins after it is unloaded from barges moored at the terminal. Front end loaders are used to transport aggregate from the barges to the conveyer system and to load purchased aggregate into trucks. Stockpile aggregate is the only material at the facility that is exposed to stormwater. Small quantities of lubricating oils and grease are stored at the facility. Equipment maintenance and fueling operations are performed by outside contractors (CalPortland 2009). A vehicle wheel wash is used at the entrance to the facility (Phoinix 2008).

Erosion and sediment control best management practices (BMPs) are employed at the facility to control discharge of sediment to the LDW. CalPortland inspects erosion and sediment control systems every seven days and after any storm that produces more than 0.5 inch of rain in 24 hours (CalPortland 2011).

4.3.2 Historical Operations

This property was developed around 1920. Since 1936 it has been used for the storage and maintenance of construction-related equipment (GeoEngineers 1997).

4.3.3 Regulatory History

In November 1992, Fletcher General Construction was issued NPDES Permit number SO300227. When Glacier Northwest (now Northwest Aggregates) began leasing the southern portion of the property in July 1995, Fletcher General and Northwest Aggregates requested an amendment to the facility's NPDES permit to show Northwest Aggregates as the operator of the facility (Lone Star 1995).

In December 1994, Fletcher General Construction was issued NPDES Permit number WAG503222 for discharge of process water or stormwater associated with sand and gravel operations to the LDW (Ecology 1994d). Fletcher General also held NPDES Permit number WAG503215. Both of these permits were determined to be unnecessary because discharges from the facility were also covered under NPDES Permit number SO300227 (Fletcher General 1995).

In 1996, Lone Star requested termination of coverage under NPDES Permit number SO300227 (Lone Star 1996). Ecology denied the request because Ecology determined Glacier Northwest to be a significant contributor of pollutants to the LDW (Ecology 1996b).

Ecology performed a water compliance inspection of Glacier Northwest in August 2002. A wiper was installed on the conveyer belt used to offload materials from barges to eliminate build up under the edge of the belt and minimize spillage of materials into the LDW (Ecology 2002d).

On September 11, 2002, a barge owned by the Island Tug & Barge Company capsized offshore of Glacier Northwest. The barge was carrying 2,000 tons of crushed aggregate material, which was spilled into the LDW. After this event, Island Tug & Barge recovered their capsized barge, and USACE directed Island Tug & Barge to recover as much of the spilled material from the river as possible without disturbing the sediments. A total of 500 tons of aggregate was recovered and transported to one of Glacier Northwest's upland facilities (Glacier Northwest 2002). No legal action was taken because the discharge of the material was deemed to be an accident (USACE 2002).

Ecology performed a water compliance inspection of Glacier Northwest on September 11, 2002 after the barge owned by Island Tug & Barge had capsized earlier that day. During this inspection another barge, also owned by Island Tug & Barge, was in the process of being unloaded. The inspector noticed that there were holes in the side of the barge that allowed material to fall through the lip of the deck and into the river. Turbidity was observed once the materials entered the water. The inspector determined that the SWPPP for the facility be amended to incorporate source control methods to prevent material discharge to the LDW and that facility operations be changed to eliminate the possibility of barges capsizing during low tides (Ecology 2002e).

Ecology performed a stormwater compliance inspection of Glacier Northwest in November 2006. It was found that the SWPPP and employee training procedures were up to date. The first and second quarters of 2006 all parameters measured in stormwater discharge were above benchmark levels. The catch basins were not being cleaned on a regular basis. Fueling and equipment maintenance were performed. Due to the high permeability of the gravel-covered property, there was a high potential that spills from fueling could be discharged to the LDW (Ecology 2006d).

4.3.4 Environmental Investigations and Cleanups

Several environmental investigations have been conducted at Terminal 103. Sample locations are shown on Figures 13a through 13c and a summary of chemicals that exceeded soil and groundwater screening levels are provided in Tables 12 and 13. Summaries of all chemicals detected in soil, groundwater, and catch basin solids at the facility are included in Tables F-2 through F-4.

Preliminary Field Screening and UST Removals (1994)

Prior to the removal of three USTs (Tanks 7, 8, and 9) from the property, Fletcher General Construction advanced 13 borings around the USTs to evaluate soil conditions (Figure 13b).

Diesel-range hydrocarbons were detected at concentrations below MTCA cleanup levels in soil near Tank 7 (10,000-gallon diesel UST) (Coastal Tank Cleaning 1994).

The USTs were removed from the property in May 1994. During the excavation activities, groundwater was encountered between 10 and 12 feet below ground surface (bgs). Confirmation soil samples were collected from each of the three UST excavations (Figure 13b). Samples were analyzed for gasoline- and diesel-range hydrocarbons and total lead. None of these analytes were detected in the confirmation samples at concentrations exceeding MTCA Method A cleanup levels. The soil removed from the Tank 8 and 9 (600- and 6,000-gallon gasoline USTs) excavations was used as backfill. Soil removed from the Tank 7 excavation was removed from the property (Coastal Tank Cleaning 1994).

Several groundwater samples were collected from the excavation for Tank 9 and from two test pits. The samples were analyzed for lead. The lead concentrations in the samples exceeded the MTCA Method A cleanup level. Groundwater samples were also collected from the excavation for Tank 7 and analyzed for diesel-range hydrocarbons, which were detected in all samples at concentrations above the MTCA Method A cleanup level (Coastal Tank Cleaning 1994).

Phase I Environmental Site Assessment (October 1996)

A Phase I Environmental Site Assessment (ESA) was performed at the Fletcher General Construction property in 1996. The Phase I ESA indicated that a potential for groundwater and/or soil contamination existed at the property. Ten potential sources of contamination were identified, based on current and past activities at or on adjacent areas to the property (GeoEngineers 1997):

- Heating oil USTs (Tanks 25 and 30) located northwest of Building #6 (Office Building[7]) and east of Building #1 (Tank 30);
- An aboveground storage tank (AST) located on the southwestern portion of the property (Tank 12);
- A former fueling rack, three former USTs (Tanks 7, 8, and 9), and a fuel pipeline located in the northern portion of the property east of Building #5 (Warehouse);
- A waste oil sump reportedly located southwest of Building #2 (Oil House);
- Former storage tanks that were reportedly located south of former Building #4 (Office) (Tank 31), south of the truck scale (Tank 11), in the northwest corner of the property (Tank 26), near a former oil fueling station in the south-central portion of the property (Tank 32), and in the southeastern portion of the property (Tank 10);
- Two large, pad-mounted transformers located to the east of Building #3 (Machine Shop/Old Shop);
- A sandblasting and painting area located west of former Building #8 (Storage);
- An area of petroleum-like staining of surface soil observed in the southeastern portion of the property;

[7] This building is currently occupied by Global Diving & Salvage.

- The storm drain system and catch basins; and
- Brys Auto Wrecking[8], located to the southwest.

Phase II Environmental Site Assessment (November 1996)

The Phase II ESA was conducted to characterize potential soil and groundwater contamination on the property, including the portion of that is now occupied by Global Diving & Salvage. Twelve soil borings were completed (S-1 through S-12) (Figure 13a). Two soil samples were collected from each soil boring. Groundwater samples were collected from 11 of the borings. Three surface soil samples (SS-1 through SS-3) and three catch basin solids samples (CB-1 through CB-3) were collected. All samples were analyzed for petroleum hydrocarbons and metals. Surface soil sample SS-1 was also analyzed for PCBs. Diesel- and heavy oil-range hydrocarbons and metals were detected in soil (GeoEngineers 1997). All concentrations were below current MTCA cleanup levels, with the exception of one arsenic concentration, which exceeded the current MTCA Method B cleanup level (Table 12).

Arsenic, chromium, and lead were detected in groundwater (GeoEngineers 1997). Chromium and lead concentrations were below MTCA cleanup levels. Chromium concentrations were below the draft groundwater-to-sediment screening level. Lead concentrations exceeded the draft groundwater-to-sediment screening level. Arsenic concentrations exceeded the MTCA Method B cleanup level but were below the draft groundwater-to-sediment cleanup level (Table 13).

Petroleum hydrocarbons and metals were detected in all three catch basin solids samples (GeoEngineers 1997). None of the metals concentrations exceeded the storm drain screening values (Table F-4).

Maintenance Dredging (1998 and 2000)

In 1998 and 2000, Northwest Aggregates performed maintenance dredging of the barge slip at Terminal 103. In 2000, the total volume of this dredging was to not to exceed 100 cubic yards. Annual dredging of approximately 100 cubic yards was planned to occur over a 9-year period (Port of Seattle 2000).

4.3.5 Potential for Sediment Recontamination

The potential for sediment recontamination via this property is summarized below by transport pathway. PCB and BEHP concentrations exceeded the SQS in a surface sediment samples collected near the property. The BEHP concentration in sample DR076 also exceeded the CSL.

Stormwater and Surface Runoff

Stormwater runoff from the facility is contained behind the metal sheetwall at the shoreline and can flow over the wall (CalPortland 2009). Contaminants in products, materials, and scrap metals stored outdoors at Terminal 103, if any, may become entrained in stormwater and conveyed to the LDW. Based on the SWPPP, Northwest Aggregates appears to maintain appropriate source control BMPs to prevent stormwater contamination. Source control BMPs implemented by

[8] Brys Auto Wrecking historically operated at the former Concrete Restoration property (Section 5.6).

General Construction are unknown. The potential for sediment recontamination via this pathway is low to moderate.

Spills

Overwater activities are performed by Northwest Aggregates and General Construction. Spills to the LDW may occur during these activities. Aggregate spills to the LDW may be harmful to the overall river environment but are not likely to represent a potential source of sediment recontamination. Spills from General Construction's activities may represent a potential source of sediment recontamination, particularly if scrap metals were spilled. The potential for sediment recontamination via this pathway is low to moderate.

Soil and Groundwater

An environmental investigation at the property confirmed the presence of petroleum hydrocarbons and metals in soil and groundwater at the property. Lead concentrations in groundwater exceed the MTCA Method A cleanup level and the draft groundwater-to-sediment screening level. Metals concentrations in sediment samples collected near Terminal 103 have not exceeded the SQS or CSL, indicating that the potential for sediment recontamination via this pathway is low.

Bank Erosion/Leaching

A metal sheetwall is present at the shoreline of the terminal, protecting bank soil from erosion and leaching. This pathway is incomplete.

4.3.6 Data Gaps

Information needed to assess the potential for sediment recontamination associated with current or historical operations at the property is listed below:

- The General Construction facility has not been inspected. A facility inspection is needed to verify compliance with source control BMPs.
- Northwest Aggregates has not been inspected since 2006. A facility inspection is needed to verify continued compliance with source control BMPs.

4.4 Global Diving & Salvage

Facility Summary: Global Diving & Salvage	
Tax Parcel No.	7666703442
Address	3840 West Marginal Way SW
Property Owner	Marginal Group LLC
Parcel Size	0.95 acre (41,339 sq ft)
Facility/Site ID	None
SIC Code(s)	1629: Heavy Construction, not elsewhere classified
EPA ID No.	None

Facility Summary: Global Diving & Salvage	
NPDES Permit No.	None
UST/LUST ID No.	None

Global Diving is located at the northwest corner of Terminal 103. Parcel 3442 was historically owned by the Port and was sold to the current property owner in February 1998. The parcel is bordered by the BNSF Railroad Right-of-Way to the north, Terminal 103 to the east and south, and West Marginal Way SW to the west. Two buildings are present on the property, a 1,152 sq ft storage building built in 1953 and an 8,624 sq ft office building built in 1929.

4.4.1 Current Operations

Global Diving is a diving contractor providing marine construction and infrastructure support services. The company's northwest region and corporate office operate at this facility (Global Diving & Salvage 2012).

The outdoor storage area is paved. Vehicle fueling and washing is performed outdoors. Two 55-gallon ASTs containing gasoline and diesel are used in the fueling area (SPU 2006e). Materials typically stored on site include the following items (Grennan 2006):

- three 55-gallon barrels of diesel fuel,
- six 6-gallon jugs of diesel fuel,
- one 55-gallon barrel of gasoline,
- eight 6-gallon jugs of gasoline,
- twelve 6-gallon jugs of mixed gas,
- one 15-gallon barrel of solvents,
- four 55-gallon barrels of marine engine and hydraulic oils, and
- twenty 5-gallon pails of hydraulic oil.

A wash area with an oil/water separator that discharges to the sanitary sewer is located inside the storage building. There are four catch basins currently located on the site. All the catch basins are equipped with outlet traps (SPU 2006e). Stormwater from the property appears to discharge to the LDW via the Terminal 103 storm drain system, based on the Terminal 103 Storm Drain Plan (Figure 12).

4.4.2 Historical Operations

This property was part of Terminal 103 until February 1998. Additional information regarding historical operations at the property is provided in Section 4.3.2.

4.4.3 Regulatory History

Stormwater Inspections

SPU performed an initial inspection at Global Diving on July 20, 2006. A variety of waste materials were being stored onsite for disposal, including antifreeze, batteries, caustic bases, dyes and inks, fluorescent light tubes, paints, pesticides, petroleum oils, photochemicals, phthalate containing materials, and PCB-containing materials. The materials were stored inside the storage building in waste drums. Spill materials were kept on site, but a spill plan had not been developed for the facility. Evidence of soap was observed in one of the catch basins (SPU 2006e). SPU identified the following corrective actions (SPU 2006f):

- Complete and post a written spill plan at appropriate locations on the property.
- Provide adequate secondary containment for hazardous materials and fuel storage areas.
- Properly label all of the waste containers.

SPU re-inspected the facility on October 26, 2006. SPU determined that Global Diving satisfactorily completed the corrective actions and was found to be in compliance (SPU 2006g).

4.4.4 Environmental Investigations and Cleanups

The Phase II ESA that was performed in November 1996 at Terminal 103 included this property. At the time of the ESA, this property was still owned by the Port. Soil borings S-1, S-4, S-8, and S-11 were advanced on the property (Figure 13a). Petroleum hydrocarbons, cadmium, chromium, lead, and mercury were detected in soil at concentrations below MTCA cleanup levels and the draft soil-to-sediment screening levels (Table F-2). Arsenic and lead were detected in groundwater; the arsenic concentration from boring S-1 exceeded the MTCA Method B cleanup level (Table 13). Additional information regarding the Phase II ESA is provided in Section 4.3.4.

4.4.5 Potential for Sediment Recontamination

The potential for sediment recontamination via this property is summarized below by transport pathway.

Stormwater

Global Diving & Salvage stores some petroleum products and solvents outdoors. These materials have the potential to come into contact with stormwater. The facility complied with SPU's corrective actions in 2006, which included providing secondary containment for hazardous materials and fuel storage areas (SPU 2006g). If the Global Diving & Salvage has continued to maintain appropriate BMPs for source control, the potential for sediment recontamination via the stormwater pathway is low.

Groundwater Discharge

Environmental investigations performed at the property in 1996 indicated that petroleum hydrocarbons and metals are present in soil and groundwater beneath the property. Arsenic exceeded the MTCA Method B cleanup level in one groundwater sample. Metals concentrations in sediment samples collected near the property did not exceed the SQS or CSL. The potential for sediment recontamination via this pathway is low.

4.4.6 Data Gaps

Information needed to assess the potential for sediment recontamination associated with current operations at the property is listed below:

- Additional information is needed to determine if catch basins at the Global Diving & Salvage facility are plumbed to the storm drain system at Terminal 103 or the SW Dakota Street SD system.
- Global Diving & Salvage has not been inspected for compliance with source control BMPs since 2006. An inspection of the facility is needed to verify that the company continues to be in compliance.

4.5 Port of Seattle Terminal 105

Facility Summary: Port of Seattle Terminal 105	
Tax Parcel No.	Terminal 105 Park: 7666703460, 7666703532 Former Terminal 105: 7666703462, 7666703464, 7666703530, 7666703540,7666703630
Address	3460: 4014 West Marginal Way SW 98106 3532: None
Property Owner	3460 & 3532: Port of Seattle
Parcel Size	3460: 2.66 acres (115,664 sq ft) 3532: 2.00 acres (87,023 sq ft)
Facility/Site ID	21179265: Duroboat Manufacturing Company 24172765: Crowley Marine Services 44375557: Bird Johnson Port 53456833: Puget Sound Tug & Barge Company 66711778: Seattle Port Terminal 105 76453385: HW Blackstock Co 97821669: The Boeing Company, Terminal 105
SIC Code(s)	*Current* 2452: Prefabricated Wood Buildings and Components 9999: No classifiable Establishments *Historical* 3499: Fabricated Metal Products, not elsewhere classified 3731: Ship Building and Repairing 4449: Water Transportation of Freight, not elsewhere classified

Facility Summary: Port of Seattle Terminal 105	
	4491: Marine Cargo Handling 4492: Towing and Tugboat Service 7699: Repair Services, not elsewhere classified 9199: General Government, not elsewhere classified
EPA ID No.	WAD113019632 – inactive (Duroboat Manufacturing) WAD980836951 – inactive (Terminal 105) WAD980976310 – inactive (Crowley Marine Services, Boeing) WAD980976740 – inactive (Terminal 105) WAD988471504 – inactive (Crowley Marine Services) WAD988476206 – inactive (Bird Johnson)
NPDES Permit No.	None
UST/LUST ID No.	LUST: 5156 – inactive (Seattle Port Terminal 105) UST: 6272 – inactive (Seattle Port Terminal 105) UST: 100914 – inactive (Puget Sound Tug & Barge)

Additional information regarding the former Terminal 105 parcels is provided in Sections 4.5 through 4.7.

The Port of Seattle operates the Terminal 105 Park, which includes parcels 3460 and 3532. The L-shaped park property is bordered by the LDW to the east, Pacific Rendering and Ferguson to the south and the west, General Recycling to the southwest, West Marginal Way SW to the west, and Terminal 103 to the north. There are no buildings on the property.

4.5.1 Current Operations

The Terminal 105 Park is open to the public. Through the park, the public has access to 220 feet of shoreline, a boat launch, and a 50-foot fishing pier (Figure 11). A salmon habitat is located within the park (Port of Seattle 2012a). A stream flows through park from West Marginal Way SW at the western side of the park to the LDW. The stream is tidally influenced (Phoinix 2007b). Outfalls 2149, 2148, and 2150 (from west to east, respectively) are located in the stream. The park has been present since at least 1990 (Kennedy/Jenks 1991b). Between 1994 and 1995, approximately 12,500 cubic yards of fill material were excavated and removed from the park (Port of Seattle 1995).

4.5.2 Historical Operations

Terminal 105 historically included the properties listed below. The Port acquired these properties between 1967 and the early 1980s. The Port began using Terminal 105 for handling logs and containers and berthing when a portion of the former terminal was acquired in 1967 (Port of Seattle 1985b, 1989). Development of Terminal 105 began in 1982 (Seattle Times 1982). Current occupants and operations at these properties are shown on Figure 11 and discussed in the sections listed below.

Parcel(s)	Year Sold	Current Occupant
7666703464	1997	Pacific Rendering (Section 4.6)
7666703462 7666703530	1997	Ferguson Enterprises (Section 4.7)
7666703540 7666703630	2002	General Recycling of Washington (Section 4.8)

Industrial activities have been performed at the former Terminal 105 property since the 1910s. Little information was available for review about most historical activities. Historical operators and activities are listed in Table 14. Additional information is summarized by parcel in the following sections.

Parcels 3460 and 3532 (Currently Terminal 105 Park)

From approximately 1969 to the 1980s, **Liquid Disposal Corporation** operated a bulk oil tank facility at the northeast corner of this property, immediately adjacent to the LDW. Four USTs (Tanks 13 through 16) were present at the facility (Figure 9). It is not known if these tanks remain at the property or if they have been removed (SoundEarth 2011b).

From the 1940s to 1983, **Riverside Marina** was present on parcel 3532 (Kennedy/Jenks 1991b).

Parcel 3464 (Currently Pacific Rendering)

From 1984 to 1986, approximately 10,000 cubic yards of soil excavated from Terminal 5 was stored at parcel 3464 (Figure 14). The soil was removed in 1986 and used as cover material at Coal Creek Landfill (Kennedy/Jenks 1991b).

From approximately 1980 to 1988, **Duroboat Manufacturing** (Duroboat) operated at 1140 SW Dakota Street (Figure 14). Duroboat manufactured small aluminum boats (Port of Seattle 1989; Kennedy/Jenks 1991b). In 1988, Duroboat applied for an EPA ID for the disposal of waste methyl ethyl ketone, which was generated from paint cleanup activities (Duroboat 1988).

Prior to November 1988, Building W-13, a large warehouse (approximately 320,000 sq ft) spanned parcels 3464 and 3462 (Figure 14). A fire destroyed approximately 25,600 sq ft of the building in November 1988. Duroboat was in the process of moving out of the building at the time of the fire (Port of Seattle 1988). The remaining portion of the building was demolished in December 1988 (Port of Seattle 1989).

All historical buildings on this parcel were demolished by 1988 (Kennedy/Jenks 1991b).

Duroboat was operating at the property again in 1991 (Kennedy/Jenks 1991a), but the duration of its operations is unknown.

Parcels 3462 and 3530 (Currently Ferguson Enterprises)

From the 1920s to 1934, **Marine Construction Company**, a shipyard, operated on the western portion of parcel 3530. Equipment at the property included a marine railway, launching skidways, and an electric traveling crane. The structures were destroyed during a storm in 1934 and not rebuilt (Kennedy/Jenks 1991b). **Seattle Lumber Milling Company** also operated at this location during this time (GeoEngineers 1990).

From the 1940s to 1983, a small marina and boatyard, which included docks and a boat-lift elevator, operated on parcel 3530 (Kennedy/Jenks 1991b).

In 1953, **Soule Steel Company** purchased Building I-1 (Figure 14). **Coolidge Propeller Company**, the successor to **Bird Johnson**, purchased the building in 1968 (GeoEngineers 1990). The Port bought the building in 1975.

In 1983, the Port initiated an improvement project at Terminal 20. Dredge spoils from the Terminal 20 improvements were disposed of at Terminal 105 on parcel 3530 (Figure 14). The elevation of the area was increased by approximately 4 feet (SoundEarth 2011b). The EPA determined that PCB concentrations in the dredge spoils were too high to allow for open-water disposal of the spoils; therefore, approximately 16,000 cubic yards of dredge spoils were disposed of at Terminal 105 in January 1983 (Port of Seattle 1985). In 1998 or 2004, the Ferguson Enterprises warehouse was built in this area. The PCB-contaminated dredge spoils may have been removed during warehouse construction as the base of the building does not appear to be 4 feet higher than the surrounding property.

From 1984 to 1986, approximately 10,000 cubic yards of soil excavated from Terminal 5 was stored at parcel 3530 (Figure 14). The soil was removed in 1986 and used as cover material at Coal Creek Landfill (Kennedy/Jenks 1991b).

In July 1992, the Port met with the tenants of Building W-5 to discuss environmental liabilities with regard to waste handling. The Port directed **Fife Forge** to provide secondary containment for a paint dip tank and a 180-gallon diesel AST and **Wayne Hart** to provide secondary containment for waste oil drums. The Port directed **Garrett Metals** to properly store acids and solvents and to improve housekeeping in an outdoor storage area. The Port directed all three companies to obtain spill response materials and to properly designate materials and wastes that were stored in an area shared by all building tenants (Port of Seattle 1992a,b,c).

In late 1992, the Port notified Wayne Hart that his lease would not be renewed. In January 1993, the Port inspected the area outside of Building W-5 where racing tires, used metal parts, junked cars, and plastic sheets with oil puddles on them were stored. Oil stained debris and soil were present along the east wall of the building (Port of Seattle 1993b).

The Port sold these parcels to the Lipsett Company LLC in July 1997.

Parcels 3540 and 3630 (Currently General Recycling)

In the 1910s, **Erickson Shipbuilding, Elliott Bay Yacht & Engine Company, Elliott Bay Shipbuilding,** and **North Pacific Shipbuilding** operated on these parcels. The companies'

operations extended onto present-day parcels 3670 (Herring's House Park), 3680 (Gray Line), and 9018 (General Recycling) (Port of Seattle 1985c; SoundEarth 2011b).

From the 1920s to the 1940s, **Manufacturers Mineral Company** and **Waterman Slate Company** operated on the south side of SW Idaho Street (parcel 3630). Rock and shell grinding was performed at the northeast corner of the property, adjacent to the LDW (Figure 14) (GeoEngineers 1990; SoundEarth 2011b). Waste fine sands were used as fill along the LDW shoreline. **Cunningham Steel Foundry** also operated in this area and used waste foundry sand as fill along the shoreline (Foster 1945).

1920s to 1950s, **Pacific Stove and Foundry Company** operated on parcel 3540 (Figure 14). The facility included a lumber shed, fuel yard, enameling building, stove foundry, warehouse, manufacturing building, and spray-painting building (Kennedy/Jenks 1991b). The foundry maintained small 50-gallon tanks of caustic cleaners, sulfuric acid, muriatic acid, sodium borate, cyanide, and zinc salts, all of which were used in metal treatment. The tanks were cleaned once a year and the contents of the tanks were dumped onto an adjacent lot (Foster 1945). **Pacific Stove and Stamping Company** also operated in this location (GeoEngineers 1990).

From the 1920s to 1940s, **Manganese Products, Inc.**, a fertilizer plant producing up to 200,000 tons per year of calcium magnesium phosphate fertilizer, operated at the property, using 4260 West Marginal Way SW as its operating address (Manganese Products Inc. 1948; Kennedy/Jenks 1991b).

From the 1920s to 1950s, **Wallace Bridge and Structural Steel Company**, which included painting, plating, and machining shops, operated on parcel 3630 (Figure 14) (Kennedy/Jenks 1991b; SoundEarth 2011b).

From 1970 to 1975, parcel 3630 was a log storage yard. Container storage in this area began in approximately 1978. In the 1990s, the storage lot was operated by **American President Lines** (APL) (Kennedy/Jenks 1991b).

From the 1980s to 1998, **Crowley** used the waterfront areas for docking, loading/unloading, and maintenance of tugs and barges. The maintenance activities consisted of cutting, welding, and servicing (Kennedy/Jenks 1991b; Crowley 1999). Prior to 1990, Crowley removed "a considerable volume" of surface soil to remove sandblasting grit from the property and removed approximately 80 to 100 cubic yards of soil that was contaminated by waste oil spilled to the ground surface (GeoEngineers 1990).

In December 1983, 110 abandoned drums containing Magnifloc 1560, a water treatment polymer that is an Ecology-regulated dangerous waste, and waste solvents, grease, and fuels were removed from Terminal 105. The drums were apparently left by the former occupants of the Pioneer and Riverside Marinas (Port of Seattle 1984).

Underground and Aboveground Storage Tanks

Fifteen storage tanks were installed on Terminal 105 property, including 13 USTs and 2 ASTs. Seven USTs have been removed, one UST was closed-in-place, and the status of four USTs and

two ASTs is unknown. The locations of these storage tanks are shown on Figure 9. Additional details for these storage tanks are provided in Table 11.

4.5.3 Regulatory History

Ecology performed a Dangerous Waste Compliance inspection at Crowley in November 1998. Crowley was in the process of moving its operations from Terminal 105 to another facility at Pier 17. In January 1999, Crowley notified Ecology that waste was no longer generated at the Terminal 105 facility (Ecology 1998c; Crowley 1999).

In April 2002, Boeing requested to have the EPA ID assigned to Crowley (WAD980976310) reactivated. The waste stream was water with flammable fuels, benzene, and petroleum distillates (Boeing 2002).

4.5.4 Environmental Investigations and Cleanups

Several environmental investigations have been conducted at the Terminal 105 property. Sample locations are shown on Figures 15 through 17 and a summary of chemicals that exceeded environmental media screening levels is provided in Tables 15 through 18[9]. Summaries of all chemicals detected in environmental media at the facility are included in Tables F-5 through F-9.

Groundwater Study (1982 to 1983)

In December 1982, a groundwater study was performed at Terminal 105 to provide a baseline understanding of environmental conditions at the terminal, prior to the disposal of dredging spoils from the Terminal 20 improvement project. Groundwater monitoring continued for one year to assess changes in conditions following the disposal of the dredge material. Three groundwater monitoring wells (MW-1 through MW-3) were installed around the perimeter of the proposed dredge disposal area, which was a flat, undeveloped sandy area (Figure 15). Groundwater elevation and flow was tidally influenced, but net flow direction was to the northeast, towards the LDW (Harding Lawson 1983; Port of Seattle 1985a).

Groundwater samples were collected from the wells in December 1982, and March, April, June, and September 1983 (Harding Lawson 1983). Concentrations of BEHP, cadmium, lead, and zinc exceeded the current MTCA cleanup levels and draft groundwater-to-sediment screening levels in December 1982. Arsenic, cadmium, lead, mercury, zinc, dieldrin, and methylene chloride concentrations also exceeded current MTCA cleanup levels and/or the draft groundwater-to-sediment screening levels during the 1983 sampling events (Table 16). Metals concentrations in groundwater initially increased following disposal of the dredged materials. The increase in concentrations was attributed to the dewatering of the dredged materials. Seven months after the disposal, metals concentrations in groundwater were at or below the pre-disposal concentrations. Concentrations of arsenic and total phenols, which had not been detected in groundwater prior to the dredge materials disposal, continually increased during the months following the disposal (Port of Seattle 1985a).

[9] Chemical concentrations exceeding screening levels in the sediment samples are summarized in Table 3.

Soil Investigation (1985)

Nine shallow soil borings (U-1 through U-9) were advanced on the property in June 1985 (Figures 15 and 16). Samples from the borings were composited into four samples for laboratory analysis. The composite samples were analyzed for base/neutral organic priority pollutants, acid extractable organic priority pollutants, priority pollutant metals, and EP toxicity (metals and organics). Metals were detected in all four samples (GeoEngineers 1985). Arsenic concentrations in all four samples exceeded the current MTCA Method B cleanup level but did not exceed the draft soil-to-sediment screening levels (Table 15).

UST Removals (1989)

Tank 105F (Tank 22) was removed from Terminal 105 in May 1989 (Figure 15). The gasoline tank had not been used since 1982. Approximately 10 gallons of groundwater were present in the UST, though no corrosion was noted when the tank was removed. Three soil samples were collected from the UST excavation and analyzed for petroleum hydrocarbons and benzene, toluene, ethylbenzene, and xylenes (BTEX), which were detected at concentrations below current MTCA Method A cleanup levels (Port of Seattle 1989).

Tank 105A (Tank 24), a 2,000-gallon gasoline UST, was removed from the property in 1989 (Figure 16). The UST had not been used since 1982. Confirmation soil samples were collected from the UST excavation and analyzed for petroleum hydrocarbons and BTEX. Petroleum hydrocarbon concentrations exceeded the current MTCA Method A cleanup level for gasoline (Table 15). Ethylbenzene was also detected in soil (Kennedy/Jenks 1991b).

Building I-1 Environmental Site Assessment (1990)

Four hand auger borings (HA-1 through HA-4) were advanced inside Building I-1 to depths between 6 and 7 feet bgs (Figures 15 and 16). One soil sample was collected from each boring and analyzed for petroleum hydrocarbons, VOCs, metals, and PAHs. Groundwater samples were collected from borings HA-1 and HA-2 and well MW-1. The groundwater samples were analyzed for petroleum hydrocarbons, VOCs, and dissolved metals. Benzene and petroleum hydrocarbons were detected in soil; the benzene concentration exceeded the current MTCA Method B cleanup level (Table 15). Benzene, toluene, and zinc were detected in groundwater at concentrations below the MTCA cleanup levels (GeoEngineers 1990).

Phase I Environmental Site Assessments (1991)

A Phase I ESA was performed in January 1991 to evaluate potential environmental liabilities associated with SW Nevada and SW Idaho Streets prior to sale of these rights-of-way to the Port. Additional environmental investigations were recommended to address potential soil and groundwater contamination stemming from historical operations at the property (Kennedy/Jenks 1991a).

A Phase I ESA was performed in March 1991 to assess baseline conditions at Terminal 105 prior to occupation by new tenants. Oil- and paint-stained soils were observed at Building W-2 (Crowley Marine Maintenance Shop) and the lean-to structure adjacent to the building. Workers at the maintenance shop poured waste paint thinner on the ground around the maintenance shop.

Sandblasting was performed in the maintenance yard. A 600-gallon waste oil UST (Tank 33) was present in the yard (Figure 16). Oil-stained soils were present near the UST (Kennedy/Jenks 1991b).

Dry Boat Storage Building Soil Investigation (1992)

Four test pits were excavated in the proposed footprint of a Dry Boat Storage Building on parcel 3462 in December 1992. Soil samples were collected and composited from each test pit. The soil samples were analyzed for PCBs, VOCs, SVOCs, and pesticides. PCB and PAH concentrations exceeded current MTCA cleanup levels in sample SS-3 (Port of Seattle 1993a). The PCB concentration also exceeded the draft soil-to-sediment screening level (Table 15). The proposed building was not constructed.

Site Assessment (1993)

An assessment of the property was performed in 1993 to identify and assess the historical activities that may have resulted in contamination of environmental media at the property. Asbestos, PCB ballasts, and lead-painted surfaces were present in Buildings A-4, A-5, I-1, W-2, and W-3 (Olympus 1994).

Four groundwater monitoring wells (OMW-1 through OMW-4) were installed on the property (Figure 16). The following environmental samples were collected: 4 groundwater, 11 soil, 3 catch basin solids, 3 sediment, and 3 stormwater runoff. The samples were analyzed for PCBs, SVOCs, VOCs, metals, and petroleum hydrocarbons. In addition, 13 surface sediment samples were collected for chemical analysis (Olympus 1994). Analytical results are presented in Tables 15 through 18[10] and summarized below.

	Soil		
COC	**Parcel 3530**	**Parcel 3540**	**Parcel 3630**
Metals			
Antimony		♦	♦
Arsenic		♦	♦
Cadmium		● ♦	● ♦
Copper		●	♦
Lead		●	● ♦
Mercury	●		●
Silver		●	●
Zinc	●	●	●
PAHs			
Acenaphthene			●
Benzo(a)anthracene			●

[10] [10] Chemical concentrations exceeding screening levels in the sediment samples are summarized in Table 3.

COC	Soil		
	Parcel 3530	Parcel 3540	Parcel 3630
Benzo(a)pyrene			● ♦
Benzo(b)fluoranthene			●
Benzo(g,h,i)perylene			●
Chrysene			●
Fluoranthene			●
Fluorene			●
Indeno(1,2,3-cd)pyrene			●
Phenanthrene			●
Pyrene			●
Total cPAHs		♦	♦
PCBs			
Total PCBs		● ♦	● ♦
Petroleum Hydrocarbons			
Heavy Oil-Range	♦		♦

● Chemical detected in soil at a concentration that exceeds the draft soil-to-sediment screening level
♦ Chemical detected in soil at a concentration that exceeds the MTCA Method A or B cleanup level

COC	Stormwater Runoff		Storm Drain Solids
	Parcel 3530	Parcel 3630	Parcel 3630
Metals			
Arsenic			▲
Cadmium			▲
Copper		■	
Lead		■	▲
Mercury	■		
Zinc		■	▲
Petroleum Hydrocarbons			
Heavy Oil-Range			▲

▲ Chemical detected in storm drain solids at a concentration that exceeds the storm drain screening value
■ Chemical detected in stormwater runoff at a concentration that exceeds the Marine Chronic WQS

Intertidal Habitat Restoration (1994 to 1995)

Between July 1994 and February 1995, approximately 12,500 cubic yards of fill were removed from a former estuarine aquatic area, which is part of the current Terminal 105 Park (parcel 3460). The project was performed by the Port and sponsored by USACE, EPA, and U.S. Fish and Wildlife Service. During the removal action, the following environmental concerns were addressed (Port of Seattle 1995). These areas are shown on Figure 17.

- Area A – Friable asbestos, approximately ¼- to ½-inch thick and 3 feet wide, was removed from the south side of the public access road to the Terminal 105 Park.

- Area B – An underground concrete-lined vault filled with a mixture of sand, clay, asphalt, coal, and ash was present in this area. A faint petroleum odor and sheen was present in the mixture. Diesel-range hydrocarbons were detected in the mixture at a concentration below the current MTCA Method A cleanup level.
- Area C – A 15- by 20-foot area containing construction debris, sandblast grit, foundry sand, and corroded metals was excavated to remove the wastes.
- Area D – Approximately 50 to 100 cubic yards of soil were removed from the area due to the presence of VOCs and SVOCs in the soil. A confirmation sample was collected and analyzed for VOCs and SVOCs. Methylene chloride and PAHs were detected in the sample; however, concentrations did not exceed MTCA cleanup levels or the draft soil-to-sediment screening levels.
- Area E – A 100- to 200-gallon UST (Tank 19) containing less than 30 gallons of water was unearthed from the area. A water sample from the tank and a sample collected from the surrounding soil were analyzed for TCLP metals and petroleum hydrocarbon identification. Petroleum hydrocarbons were not identified in the sample.
- Area F – A 200- to 300-gallon UST (Tank 23) was unearthed. The tank was filled almost full with sand. Approximately 2 feet of water was present above the sand. A sample of the sand was collected and analyzed for TCLP metals and petroleum hydrocarbon identification. Petroleum hydrocarbons were identified in the sample.
- Area G – Soil with a creosote odor was exposed in this area, covering approximately 30 square feet and several inches deep. One soil sample was collected and analyzed for TPH, which was present at 8,300 mg/kg. The soil was excavated and removed from the property.
- Area H – A sheen was observed on water seeping through the bank soils in this area. A soil sample was collected and analyzed for TPH, which was present at 2,000 mg/kg. Soil was excavated from this area due to the presence of TPH.
- Area I – An area of diesel- or oil-stained soil was present in this area. A soil sample was collected and analyzed for TPH, which was present at 18,000 mg/kg. Approximately 5 to 10 cubic yards of soil were removed from this area.
- Area J – A 2,000-gallon diesel UST (Tank 21) was unearthed in this area. Diesel fuel had leaked from the UST contaminating the soil to the east of the UST. A sheen was observed on water draining from the bank shoreline and on water that came into contact with the shoreline at high tide. Diesel-range hydrocarbons were detected in soil at 1,100 mg/kg. Approximately 200 cubic yards of soil was excavated and removed from the property.
- Area K – Paint cans and buckets were disposed of in this area, which was referred to as the paint pit. The paint pit covered approximately 1,250 square feet and was between 4.5 and 7.5 feet deep. Arsenic concentrations in the excavated soil indicated that sandblasting slag was also present in the paint pit. Confirmation samples were collected from the excavated area; cadmium and lead concentrations exceeded current MTCA Method A cleanup levels. Cadmium concentrations also exceeded the draft soil-to-sediment screening level. The excavated soil was removed from the property.

- Area L – A buried pier was present in this area. Creosoted pilings and timbers were removed, but broken piles near the mouth of the stream were left in place.

In December 1994, an assessment was performed to evaluate the nature and extent of contaminants remaining in the intertidal area following the removal of the 12,500 cubic yards of fill and the remedial excavations in various areas, such as Area K (Figure 17). Three samples were collected from six sampling transects (18 samples total) and composited into one sample for each transect. The samples were analyzed for PCBs, PAHs, metals, and petroleum hydrocarbons. Discrete samples from transects 1, 3, and 6 were also analyzed for these chemicals (Erda Environmental 1996). Concentrations of PCBs, PAHs, and metals exceeded the MTCA Method A cleanup levels and the draft soil-to-sediment screening levels (Table 15).

Phase II Investigation (1997)

An environmental investigation was performed on parcels 3462, 3464, and 3450 in January 1997. Wells MW-1, MW-2, MW-3, and OMW-4 were sampled and groundwater samples were analyzed for PCBs, SVOCs, VOCs, TCPs, pesticides, metals, and cyanide. Arsenic, copper, and zinc were detected in groundwater. The arsenic concentration in well OMW-4 exceeded the current MTCA Method B cleanup level (EcoChem 1997).

Twenty-two surface soil samples (SS-1 through SS-22) were collected (Figures 15 and 16). The soil samples were analyzed for PCBs, SVOCs, VOCs, pesticides, metals, and cyanide (EcoChem 1997). Analytical results are summarized below.

COC	Soil
Metals	
Antimony	♦
Arsenic	♦
Cadmium	♦
Copper	● ♦
Lead	♦
Mercury	●
Zinc	●
PAHs	
Acenaphthene	●
Benzo(a)anthracene	● ♦
Benzo(a)pyrene	● ♦
Benzo(b)fluoranthene	● ♦
Benzo(g,h,i)perylene	●
Benzo(k)fluoranthene	●
Chrysene	●
Dibenzo(a,h)anthracene	♦

COC	Soil
PAHs, continued	
Fluoranthene	●
Fluorene	●
Indeno(1,2,3-cd)pyrene	● ♦
Naphthalene	● ♦
Phenanthrene	●
Pyrene	●
Other SVOCs	
Dibenzofuran	●
Pentachlorophenol	● ♦
PCBs	
Total PCBs	♦
VOCs	
Methylene chloride	♦
Petroleum Hydrocarbons	
Heavy oil-range	♦

● Chemical detected in soil at a concentration that exceeds the draft soil-to-sediment screening level
♦ Chemical detected in soil at a concentration that exceeds the MTCA Method A or B cleanup level

4.5.5 Potential for Sediment Recontamination

Concentrations of zinc, phthalates, PCBs, and benzyl alcohol exceeded the SQS in sediment samples collected near the outfalls in the Terminal 105 Park stream. The dioxins/furans TEQ in the sample collected near Outfall 2150 exceeded the LDW background level. In sediment samples collected from the LDW offshore of the Terminal 105 Park, concentrations of mercury, PAHs, phenols, and PCBs exceeded the SQS. Concentrations of copper, lead, and mercury exceeded the Marine Chronic WQS in Seep 71, which is located on the Terminal 105 Park. Bank soil samples collected from the Terminal 105 Park contained concentrations of arsenic and PCBs that exceeded the LDW background and mercury that exceeded the SQS. In addition, the cPAHs TEQ and dioxins/furans TEQ exceeded the LDW background.

The potential for sediment recontamination via Terminal 105 is summarized below by transport pathway.

Stormwater and Surface Runoff

Stormwater at the Terminal 105 Park infiltrates the ground surface. Contaminants in stormwater, if any, may be conveyed to groundwater and released to the LDW via the groundwater discharge and leaching pathways.

The potential for sediment recontamination via stormwater at the former Terminal 105 parcels is discussed in the sections for the current owners/operators of these parcels (Sections 4.6 through 4.8).

Spills

Although no industrial activities are performed at the Terminal 105 Park, there is potential that spills or leaks of hazardous materials such as petroleum products could occur in the parking area. The potential for sediment recontamination via this pathway is low.

The potential for sediment recontamination via spills at the former Terminal 105 parcels is discussed in the sections for the current owners/operators of these parcels (Sections 4.6 through 4.8).

Soil and Groundwater

Previous environmental investigations have confirmed the presence of PCBs, PAHs, metals, pentachlorophenol, benzene, and heavy oil-range petroleum hydrocarbons in soil at concentrations above MTCA cleanup levels and/or the draft soil-to-sediment screening levels. Metals, BEHP, and pesticides were detected in groundwater in the 1980s at concentrations above MTCA cleanup levels and/or the draft groundwater-to-sediment screening levels. In 1997, arsenic was detected above the MTCA Method B cleanup level in one groundwater sample. The potential for sediment recontamination via this pathway is low to moderate.

Bank Erosion/Leaching

The banks along the Terminal 105 Park stream and the shoreline with the LDW include areas of vegetated and exposed soil. Bank soil samples collected in 2011 confirmed the presence of arsenic, mercury, PAHs, PCBs, and dioxins/furans at concentrations above the SQS and LDW background levels. Mercury in seep water at the park (Seep 71) exceeded the Marine Chronic WQS and mercury in sediment offshore of the park has exceeded the SQS. The potential for sediment recontamination via bank erosion/leaching pathway is high.

4.5.6 Data Gaps

Information needed to assess the potential for sediment recontamination associated with current operations at the property is listed below:

- Additional information is needed to determine if the Liquid Disposal Corporation USTs (Tanks 13 through 16) have been removed from the Terminal 105 Park.
- Additional information is needed to determine if the PCB-bearing dredge spoils remain at the property.

4.6 Pacific Rendering Co Inc.

Facility Summary: Pacific Rendering Co Inc.	
Tax Parcel No.	7666703464
Address	4034 West Marginal Way SW 98106
Property Owner	Biodiesel Properties LLC
Parcel Size	1.32 acres (57,358 sq ft)
Facility/Site ID	6869: General Biodiesel Inc. 10287: Pacific Rendering Co Inc.
SIC Code(s)	2077: Rendering and meat byproduct processing (Encore Oils) 2869: Industrial organic chemicals (Pacific Rendering)
EPA ID No.	None
NPDES Permit No.	None
UST/LUST ID No.	None

Encore Oils purchased Pacific Rendering Co Inc. (Pacific Rendering) in early 2012 and currently operates the facility on parcel 3464 (Tiffany 2012). The parcel is bordered by the Terminal 105 Park to the north, Ferguson to the east and south, and West Marginal Way SW to the west. A 29,639 sq ft warehouse/open office building, built in 2000, is present on the parcel.

4.6.1 Current Operations

Encore Oils operates a meat rendering facility, which produces tallow, grease, and feed oils for its Salem, Oregon, biodiesel production facility, as well as meat and bone meal (SPU 2012b; Tiffany 2012).

Tanker trucks, box trucks, and van trailers are loaded and unloaded in covered areas on the northern and eastern sides of the facility. In the eastern loading area, drums and bins are cleaned and repaired. Drains in these areas are plumbed to a wastewater treatment system at the facility (SPU 2012b).

A wet scrubber system is operated to remove odors from air discharges. Wastewater from the wet scrubber system is drained to the wastewater treatment system on a monthly basis (SPU 2012b).

The wastewater treatment system discharges to the sanitary sewer. Encore Oils holds KCIW discharge permit number 7751-04 to cover this discharge. The permit is effective from March 21, 2012, through March 20, 2017 (SPU 2012b; Tiffany 2012).

Four storm drain catch basins are present on the facility. Stormwater from this facility discharges to the stream in the Terminal 105 Park via Outfalls 2148 and 2149. A storm drain is present beneath the truck scale on the southern side of the facility (SPU 2012b).

4.6.2 Historical Operations

Pacific Rendering recycled organic oils and manufactured pet food. The company moved to this location from Harbor Island in 2000 (Sea Con 2011). Pacific Rendering held KCIW permit number 7751-03 for waste discharges to the sanitary sewer system.

General Biodiesel operated at this facility for an unknown length of time in the 2000s. The company collected used cooking oil for recycling and the production of biodiesel. The company moved to 6333 1st Avenue South, which is located in the Slip 2 to Slip 3 source control area, in the late 2000s.

This property was historically part of former Terminal 105. Additional information regarding historical operations at the property is provided in Section 4.4.2.

4.6.3 Regulatory History

Encore Oils

SPU performed an inspection at Encore Oils on May 18, 2012 (SPU 2012a). SPU inspectors observed residual oil and grease stains in two parking lots where used oil collection bins, tanker trucks, and trailers were stored. One catch basin required repairs, spill response plans were not posted and an open pan of oil, grease, and water was present near the northern fence, adjacent to the Terminal 105 Park. SPU requested the following corrective actions (SPU 2012b).

- Develop and implement a spill prevention plan and train employees on the procedures of the plan.
- Purchase and maintain necessary containment and spill response equipment.
- Properly store all solid wastes in appropriate containers.
- Repair the storm drain catch basin and regularly inspect, clean, and maintain all catch basins.

- Improve housekeeping by performing daily inspections, daily trash removal, increase frequency of sweeping, and cleaning up spills and leaks as they occur.
- Obtain coverage under the Industrial Stormwater General Permit (ISGP) or obtain a certificate of no exposure (CNE).

SPU re-inspected the Encore Oils facility on July 12, 2012. The open pan of oil, grease, and water had been removed; however, the facility had not completed the remaining corrective actions identified during the May 2012 inspection (SPU 2012c).

General Biodiesel

Ecology performed an inspection at General Biodiesel on May 20, 2009. The inspectors noted that containers of grease were stored outside and determined that the facility may require coverage under the ISGP or need a CNE certificate. General Biodiesel indicated that the facility would soon move to a facility on the eastern side of the LDW (Jeffers 2009). On January 14, 2011, Ecology finalized a water quality enforcement action against General Biodiesel for violations of its ISGP at its current location on the eastern side of the LDW.

Pacific Rendering

Ecology performed an inspection at Pacific Rendering on April 11 and May 20, 2008, and determined that the facility needed to obtain coverage under the ISGP (Wright 2010a). Pacific Rendering obtained a CNE certificate on March 17, 2010.

4.6.4 Environmental Investigations and Cleanups

Information regarding environmental investigations and cleanups at this property is provided in Section 4.5.4.

4.6.5 Potential for Sediment Recontamination

The potential for sediment recontamination via this property is summarized below by transport pathway.

Stormwater and Surface Runoff

Stormwater from this facility is conveyed to the stream on the Terminal 105 Park, which is connected to the LDW. In May and July 2012, SPU identified corrective actions for Encore Oils to improve housekeeping and maintenance of the storm drain system at the facility in order to meet the minimum requirements for source control (SPU 2012b,c). Fats, grease, and oil are not sediment COCs; however, these contaminants are harmful to the river environment.

Spills

Spills that occur on the property may be conveyed to the stream on the Terminal 105 Park, which is connected to the LDW. Materials used at Encore Oils may be harmful to the river environment but may not contain sediment COCs. The potential for sediment recontamination via this pathway is low.

Soil and Groundwater

Previous environmental investigations have confirmed the presence of PCBs, PAHs, metals, and heavy oil-range petroleum hydrocarbons in soil at concentrations above MTCA cleanup levels and/or the draft soil-to-sediment screening levels. The potential for sediment recontamination via this pathway is low to moderate.

4.6.6 Data Gaps

Information needed to assess the potential for sediment recontamination associated with current operations at the property is listed below:

- A follow-up inspection is needed to determine if Encore Oils has implemented the corrective actions identified by SPU during the inspections performed in May and July 2012.
- Additional information is needed to determine if Encore Oils is required to obtain coverage under the ISGP or is eligible for a CNE certificate.

4.7 Ferguson Enterprises Inc.

Facility Summary: Ferguson Enterprises Inc.	
Tax Parcel No.	7666703530, 7666703462
Address	3462: None 3530: 4100 West Marginal Way 98106
Property Owner	3462: Lipsett Co LLC 3530: Dorothy L. Anderson
Parcel Size	3462: 0.84 acre (36,638 sq ft) 3530: 5.20 acres (226,716 sq ft)
Facility/Site ID	18675
SIC Code(s)	1711 5074
EPA ID No.	None
NPDES Permit No.	None
UST/LUST ID No.	None

Ferguson Enterprises operates the facility on parcels 3462 and 3530. Pacific Rendering is north of parcel 3530 and west of parcel 3462. Terminal 105 Park is north and east of parcel 3462 and east of parcel 3530, General Recycling is to the south, and West Marginal Way SW is west of the property.

Two buildings are present on parcel 3530: a 72,719 sq ft warehouse/open office building built in 1953 and expanded in 1998 or 2004, and a 25,240 sq ft industrial manufacturing/open office building built in 1968. No buildings are present on parcel 3462.

4.7.1 Current Operations

Ferguson Enterprises is a building and construction supply company. A bath, kitchen, and lighting gallery is present at this property.

Eighteen storm drain catch basins are present on the property (SPU 2010y). The catch basins are connected to Outfalls 2150 and 2232.

4.7.2 Historical Operations

This property was historically part of former Terminal 105. In 1998 or 2004, the Ferguson Enterprises warehouse was built in the area where PCB-contaminated dredge spoils from Terminal 20 were disposed of in 1983. Disposal of the spoils increased the elevation of the area by 4 feet. The PCB-contaminated dredge spoils may have been removed during warehouse construction as the base of the building does not appear to be 4 feet higher than the surrounding property.

Additional information regarding historical operations at the property is provided in Section 4.4.2.

4.7.3 Regulatory History

Stormwater Inspections (April 2010)

SPU performed an inspection at Ferguson Enterprises on April 5, 2010. There was no spill plan in place, but spill response materials were kept at the facility. The catch basins on the property were not equipped with outlet traps. Many of the catch basins were either partially or completely filled with sediment or debris. Large trucks (greater than ten tons) were being washed on the property on a weekly basis; wash water was discharged to the facility's storm drain system. The outdoor storage areas were paved and contained new equipment and materials awaiting disposal. These materials included 1,000 new polyvinyl chloride (PVC) pipes and old fluorescent light tubes. Housekeeping was rated as good; however, sweeping of the outdoor areas was not being conducted on a regular basis (SPU 2010y). SPU identified the following corrective actions (SPU 2010ag):

- Implement a spill prevention plan and train employees on the procedures of the plan.
- Purchase and maintain necessary containment and spill response equipment.
- Clean storm drain catch basins, install outlet traps, and perform routine maintenance on the storm drain system.
- Begin a sweeping program to remove accumulated debris on a regular basis.
- Avoid hosing down areas near storm drain catch basins.
- Place drip pans in areas where leaks may occur.
- Remove old equipment from the outdoor storage areas and inspect the equipment regularly to check for leaks and spills.
- Cease discharge of wash water to the storm drain system.

SPU re-inspected the facility on July 8, 2010, and determined that not all corrective actions had been implemented. On July 22, 2010, SPU confirmed that all corrective actions had been implemented and that the facility was in compliance (SPU 2010bo).

4.7.4 Environmental Investigations and Cleanups

Information regarding environmental investigations and cleanups at this property is provided in Section 4.5.4.

4.7.5 Potential for Sediment Recontamination

The potential for sediment recontamination via this property is summarized below by transport pathway.

Stormwater and Spills

SPU conducted an inspection in April 2010 and identified corrective actions related to stormwater, spill prevention, and wastes. In July 2010, SPU determined that the facility had implemented the corrective actions and was in compliance. The potential for sediment recontamination via the stormwater and spills pathways is therefore low, provided that Ferguson Enterprises maintains appropriate source control BMPs.

Soil and Groundwater

Previous environmental investigations have confirmed the presence of PCBs, PAHs, metals, and pentachlorophenol in soil at concentrations above MTCA cleanup levels and/or the draft soil-to-sediment screening levels. Concentrations of metals, BEHP, and pesticides in 1980s groundwater samples exceeded MTCA cleanup levels and/or the draft groundwater-to-sediment screening levels. Concentrations of metals, PAHs, and phthalates were detected in 1990s groundwater samples at concentrations below MTCA cleanup levels and draft groundwater-to-sediment screening levels. The potential for sediment recontamination via this pathway is low.

4.7.6 Data Gaps

Information needed to assess the potential for sediment recontamination associated with current operations at the property is listed below:

- Additional information is needed to determine if the PCB-bearing dredge spoils remain at the property.

4.8 General Recycling of Washington

Facility Summary: General Recycling of Washington	
Tax Parcel No.	7666703540, 7666703630, 1824049018
Address	3540: 4200 West Marginal Way SW 3630 & 9018: None
Property Owner	General Recycling of Washington LLC

Facility Summary: General Recycling of Washington	
Parcel Size	3540: 5.83 acres (253,742 sq ft) 3630: 11.04 acres (480,898 sq ft) 9018: 2.96 acres (128,755 sq ft)
Facility/Site ID	18553
SIC Code(s)	5093: Scrap and Waste Materials
EPA ID No.	None
NPDES Permit No.	WAR002341
UST/LUST ID No.	None

General Recycling operates on three parcels that are adjacent to the LDW. This property is bordered by the LDW to the east, Gray Line and Herring's House Park to the south, West Marginal Way SW to the west, and Ferguson Enterprises to the north. The former SW Idaho Street runs east-west between parcels 3540 and 3630.

There are two buildings present on parcel 3540: a 10,050 sq ft industrial heavy manufacturing built in 1960 and a 5,475 sq ft storage warehouse built in 1962. No buildings are present on parcels 3630 and 9018.

4.8.1 Current Operations

General Recycling receives, stores, and ships preprocessed ferrous scrap at its facility. Scrap is delivered by truck, rail, and barge transportation and shipped off the property via truck and rail transportation to Nucor Steel mill[11] as feed stock material. Material that is unloaded from barges has the potential to spill to the LDW. Scrap is sorted and stored outdoors on a paved surface. Oily scrap is stored on a concrete pad, which was installed in 2001. Vehicle maintenance is performed on the concrete pad. Oil filter scrap is stored in a container to prevent contact with stormwater (General Recycling 2010, 2011a; Ecology 2011a).

There are 37 catch basins on the property (Figure 18). Thirty-three of the catch basins are connected to the facility stormwater collection, recycling, and treatment system, which is designed for a 25-year storm. The system was installed in 2003 and upgraded in 2006 to include recycling capabilities. The collection system slopes away from the LDW. Berms are used to direct stormwater flow into the collection system. Collected stormwater is used for dust control at the facility. Prior to recycling, stormwater is conveyed through multiple oil/water separators and detention tanks to remove solids, silt, and metals. Stormwater from the oily-scrap collection pad is conveyed to an oil/water separator and then to a propane-fired evaporation tank. When the capacity of the collection system is exceeded, stormwater is discharged to the LDW via Outfall 2157. No discharges occur between April and September as all stormwater is recycled for dust control during these months (General Recycling 2010; Ecology 2011a).

The catch basins are equipped with compost socks and are inspected and maintained on a bimonthly schedule (General Recycling 2011a).

[11] The Nucor Steel mill is located at 2424 SW Andover Street, Seattle 98106, which is within the Chelan CSO basin (See Appendix D).

Groundwater infiltrates the stormwater collection system and is recycled for dust control. Waste water generated during fire protection system flushing, testing, and maintenance is also discharged to the stormwater collection system. During storm events, the groundwater and the fire-protection system waste water may commingle with stormwater and be discharged to the LDW via Outfall 2157 (General Recycling 2010).

General Recycling began operating at this property in 2002, when its parent company (Nucor Steel) purchased Birmingham Steel (SDJC 2002; Ecology 2007b).

4.8.2 Historical Operations

Parcels 3540 and 3630

Parcels 3540 and 3630, which are now part of the General Recycling property, were historically part of former Terminal 105. **Birmingham Steel** obtained the parcels from the Port of Seattle between 1995 and 2002. In King County tax assessor records, the property names for parcels 3540 and 3630 are listed as the Birmingham Steel Scrap Yard and Port-Terminal 105, respectively.

Additional information on the historical operations at these parcels is summarized in Section 4.4.2.

Parcel 9018

In the 1910s, **Erickson Shipbuilding, Elliott Bay Yacht & Engine Company, Elliott Bay Shipbuilding**, and **North Pacific Shipbuilding** operated on this parcel. The companies' operations extended onto present-day parcels 3670 (Herring's House Park), 3680 (Gray Line), and former Terminal 105 (Port of Seattle 1985c; SoundEarth 2011b).

Manganese Products Inc. operated on parcel 9018 in the 1930s and 1940s. Rock crushing and mineral processing were performed at the northeast corner of the property (Kennedy/Jenks 1991b; SoundEarth 2011b).

Crowley began operating on the parcel in 1968. Crowley operated maintenance shops, a paint shed, and a tool shed. The property was paved by Crowley in 1969. The company maintained two 1,000-gallon USTs to store gasoline and diesel fuel for the forklifts, cranes, and welding machines used in its operations. A gas pump on the property was abandoned in 1968. It is not known if fuel from the pump was stored in an AST or UST (Kennedy/Jenks 1991b).

Crowley sold the property to **Rodgers Industrial** in 2001. General Recycling purchased the property in 2007. The property name is listed as **WACO Scaffolding Storage Yard** in King County tax assessor records.

4.8.3 Regulatory History

Ecology performed a stormwater compliance inspection at the facility in January 2007. Ecology noted that General Recycling had made substantial capital improvements to the property to improve the quality of stormwater discharges. However, silt and mud covered much of the

facility, which led to turbidity and zinc contamination in stormwater discharges from the facility (Ecology 2007b).

Ecology identified the following corrective actions (Ecology 2007b):

- Increase sweeping frequency to remove silty sediment and debris from the property.
- Cover scrap piles that are not undergoing active work.
- Retain Discharge Monitoring Reports (DMRs) at the facility for 5 years.

In May 2007, General Recycling submitted a Level 2 Response report, addressing the conditions that resulted in zinc exceedances in the facility's stormwater discharges. General Recycling had the stormwater collection system cleaned, which reduced copper, lead, and zinc concentrations in the discharge, and proposed adding chemical treatments to the stormwater treatment system (General Recycling 2007).

Ecology performed a stormwater compliance inspection in April 2011. General Recycling recycled all stormwater during the second and third quarters of 2010. Copper and zinc concentrations in stormwater discharges exceeded the ISGP benchmarks during the fourth quarter of 2010 and the first quarter of 2011. Representatives of General Recycling expressed interest in installing a chemical treatment system that would reduce metals concentrations in the facility's discharges. Ecology requested that General Recycling submit an engineering report and request approval for the chemical treatment system. In addition, Ecology requested that the facility update its SWPPP to include the oily metals area and municipal waste storage areas and prepare a Level 2 Response report (Ecology 2011a,b).

In June 2011, General Recycling requested an extension for completing the Level 2 corrective actions. The company had decided to upgrade the stormwater treatment system to include chemical treatment. Additional time was needed to perform bench-scale and whole effluent toxicity (WET) testing, evaluate the results to select appropriate chemical treatment, and finally implement the selected treatment and install a sand filter system, which would require a retrofit of the existing stormwater treatment system (General Recycling 2011b). In November 2011, Ecology granted the request under Administrative Order 8888. Level 2 corrective actions are to be completed by September 30, 2012 (Ecology 2011c).

4.8.4 Environmental Investigations and Cleanups

In 2010, General Recycling collected 28 water samples from various catch basins on the property in order to identify sources of zinc on the property and to reduce concentrations in stormwater to below ISGP benchmark levels. Elevated levels of metals were present in water at multiple catch basins. General Recycling concluded that chemical and/or engineering stormwater treatment was needed to reduce zinc concentrations (General Recycling 2011a).

General Recycling completed bench-scale testing of Chitosan sand filtration treatment in late 2011/early 2012. This treatment is effective in reducing turbidity in the facility's stormwater discharges. A pilot study to evaluate the effectiveness of Chitosan in reducing copper concentrations in stormwater discharges was initiated on April 9, 2012. The pilot study is expected to end by May 31, 2012 (General Recycling 2012).

Additional information regarding environmental investigations and cleanups at this property is provided in Section 4.5.4.

4.8.5 Potential for Sediment Recontamination

Mercury, PCBs, BEHP, PAHs, phenol, and benzyl alcohol have been detected at concentrations above the SQS in sediment samples collected near the General Recycling property. The dioxins/furans TEQ exceeded the LDW background in two samples. The potential for sediment recontamination via this property is summarized below by transport pathway.

Stormwater and Surface Runoff

General Recycling is currently working to complete Level 2 corrective actions to address stormwater quality problems at the facility. The company will install and operate a stormwater treatment system by September 30, 2012. Once the treatment system is installed, the potential for sediment recontamination via this pathway will be decreased.

Spills

Scrap metal is unloaded from barges at the facility and spills of scrap metals to the LDW may occur; however, no records of spills were identified, indicating that General Recycling performs the unloading activities with appropriate precautions to prevent spills. The potential for sediment recontamination via this pathway appears to be low.

Soil and Groundwater

Previous environmental investigations have confirmed the presence of PCBs, PAHs, and metals in soil at concentrations above MTCA cleanup levels and/or the draft soil-to-sediment screening levels. Concentrations of metals, PAHs, and phthalates were detected in 1990s groundwater samples at concentrations below MTCA cleanup levels and draft groundwater-to-sediment screening levels. Groundwater infiltrating the storm drain system at the facility is recycled for dust control activities. The potential for sediment recontamination via this pathway is low.

Bank Erosion/Leaching

Exposed soil is present at the shoreline north of the pier, at the terminus of SW Idaho Street. Sediment COCs were not detected above the SQS/CSL in LDW sediment samples collected immediately offshore of this area (Figure 7b). The potential for sediment recontamination via this pathway is low.

4.8.6 Data Gaps

General Recycling is upgrading the facility stormwater treatment system and appears to maintain appropriate source control BMPs. No data gaps were identified for this facility.

4.9 Former Seaboard Lumber Property

Facility Summary: Former Seaboard Lumber Property	
Tax Parcel No.	7666703670, 7666703680, 1924049104
Address	3670: None 3680: 4500 West Marginal Way SW 98106 9104: 5428 West Marginal Way SW 98106
Property Owner	3670 & 9104: Seattle Parks Department 3680: Evergreen Trails Inc.
Parcel Size	3670: 6.57 acres (286,064 sq ft) 3680: 6.00 acres (261,361 sq ft) 9104: 8.05 acres (350,503 sq ft)
Facility/Site ID	75577212: Gray Line of Seattle Marginal Way 83317575: Evergreen Trails 88471591: Seattle City Seaboard Lumber former site
SIC Code(s)	4141: Local Passenger Charter Service (Evergreen Trails) 4142: Bus Charter Service, Except Local (Evergreen Trails, Gray Line of Seattle) 4173: Bus Terminal & Service Facilities (Evergreen Trails) 9999: Nonclassifiable Establishments (Seaboard Lumber)
EPA ID No.	WAD988522488 – active (Evergreen Trails) WAD009498676 – inactive (Seaboard Lumber, Northwest Container Services)
NPDES Permit No.	WA-002230-6 – inactive (Seaboard Lumber) WAR002966 – active (Evergreen Trails)
UST/LUST ID No.	LUST: 4158 – inactive (Seaboard Lumber) UST: 97506 – inactive (Seaboard Lumber) UST: 423465 – active (Evergreen Trails)

This property is the former location of the Seaboard Lumber Company (Seaboard Lumber). It consists of three parcels, two of which are owned by Seattle Parks (parcels 3670 and 9104) and one of which is now owned by Evergreen Trails Inc. (parcel 3680). The property is bordered by General Recycling to the north, the LDW to the east, Terminal 107 Park to the south and West Marginal Way SW to the west.

Two buildings are present on parcel 3680: a 40,189 sq ft garage, service repair/open office building built in 1997 and a 1,200 sq ft foot storage warehouse built in 2005. No permanent buildings are present on parcel 3670. Most of parcel 9104 is submerged.

4.9.1 Current Operations

Evergreen Trails

Evergreen Trails conducts business as **Horizon Coach Lines** and as **Gray Line**. The company's business office and maintenance facility are located on parcel 3680. The operating address is 4500 West Marginal Way SW (Evergreen Trails 2012). Evergreen Trails purchased the property

from PACCAR in January 1994. At the time of the property transaction, Evergreen Trails was a subsidiary of Holland America Line (Shannon & Wilson 2001).

Vehicle fueling, washing, servicing, maintenance, and repair are performed at the facility. All activities are performed indoors except fueling. Wash water is discharged to a floor drain and is then conveyed to an oil/water separator before discharge to the sanitary sewer. Used antifreeze, degreasers, solvents, paints, fuels, and oils are generated through these activities. Dead-end sumps are present in the maintenance shops to contain spills. These sumps are cleaned every three months (SPU 2006a; Evergreen Trails 2012).

Two USTs are installed on the property, a 20,000- to 30,000-gallon diesel UST and a 5,000- to 10,000-gallon diesel UST. New antifreeze and oil is stored in four 900-gallon ASTs. Used oil is stored in a 3,000-gallon AST. The ASTs are equipped with secondary containment. Stormwater that collects in the secondary containment is inspected for contaminants and then discharged to the facility storm drain system (Evergreen Trails 2012).

There are 13 storm drain catch basins on the property (Figure 19). The catch basins are outfitted with oil absorbing pillows. Stormwater is conveyed from the catch basins into a diversion structure, then a four bay vault, and then to an oil/water separator. The stormwater is then conveyed to a discharge vault, which is equipped with oil-absorbing pillows, prior to discharge. The catch basins and oil/water separator are inspected each month and cleaned annually, or as needed based on the monthly inspection results. The stormwater outfall is also inspected on a monthly basis (Evergreen Trails 2012). Stormwater from the property appears to discharge to the intertidal bay at Herring's House Park through either Outfall 2140 or 2141.

The EPA ID number associated with this facility was active for Gray Line as a hazardous waste generator until December 2004. Evergreen Trails continues to use the EPA ID number as TIER2 reporter, for storage of hazardous chemicals.

Herring's House Park

Seattle Parks performed a habitat restoration project to develop Herring's House Park on parcels 3670 and 9104; which were purchased from PACCAR in October 1997. The property was vacant following the purchase. The habitat restoration project was conducted between 1997 and 2001 under Consent Decree C90-395WD[12] and Nationwide Permit 38 (Shannon & Wilson 2001).

The park has open grass areas, walking trails through forested habitat and upland meadows, and an intertidal bay. The banks of the bay are planted with marsh plants. Two armored spits were constructed to protect the intertidal bay and habitat. The spits form a mouth opening to the LDW.

4.9.2 Historical Operations

Initial development occurred on this site in 1912. Previous occupants of the facility include Seaboard Lumber, the Port, **Seattle North Pacific Ship Building Company, Wallace Bridge**

[12] Entered into by the United States of America, the State of Washington, the Suquamish Indian Tribe, the Muckleshoot Indian Tribe, the City of Seattle, and METRO in 1991.

and Structural Steel Company, and **PACCAR** and its tenants. Historical ownership of the property is shown on Figure 20.

Operator	Activities	Years
Seattle North Pacific Ship Building Company	Ship Building; boiler and machinery building was later known as the Alaska Freight Building.	1920–1927
Wallace Bridge & Structural Steel Co.	Steel manufacturer; used the Alaska Freight Building for steel storage and a smaller warehouse on the property for materials storage.	1920–1940
Seaboard Lumber Company	Sawmill; the original mill was located on parcel 3670. The Alaska Freight Building was used as the lumber shed and kiln (beginning in 1969/1970).	1929–1984
Crowley Maritime	Equipment and supply storage, barge staging	
Seahawk	Container storage, possibly leased from PACCAR	1985–1991
PACCAR	Offices, leased property to various tenants	1987–1994 (Parcel 3680) 1987–1997 (Parcel 3670)
McMc Resources	Office space, leased from PACCAR	1987–1993
Northwest Container Services	Container storage and repair, leased from PACCAR	approximately 1987–1994
Pacific Commercial Pallets	Pallet storage and repair	approximately 1987–1997
J.L. Scrap Metal	Scrap metal	approximately 1987–1997
John Sjong Enterprises	Unknown	approximately 1987–1997

Sources: Kennedy/Jenks 1991c; ESL 1995; Herrera 1995; USACE 1995

Seaboard Lumber

In 1929, Seaboard Lumber began operating a lumber mill on the southern portion of the facility (parcel 3670) (Figure 21). Seaboard Lumber acquired the Alaska Freight Building from the Port in 1969 or 1970. The Alaska Freight Building spanned parcels 3670 and 3680 (Figure 22). The property was paved in 1970. Seaboard Lumber enlarged the property using fill materials between 1974 and 1980. Seaboard became a subsidiary of PACCAR in the 1980s (ESL 1992).

Lubricating oils, fungicide, and lumber dye were used in Seaboard Lumber's operations. Wastes generated in operations included: waste sawdust, wood chips, used motor oil, spent fungicide solution, and waste/scrap metal from saws (ESL 1992). Events and operations that may have impacted the environment are listed below:

- 1940s: An oil-powered Ohio Steamer locomotive crane was installed on the property. The crane was converted to diesel in the 1960s; an AST was installed (Tank 50).
- 1965 to 1974: 30W lubricating oils were stored in the old oil house in 55-gallon drums (ESL 1992; Herrera 1996).

- 1970 to 1977: Permatox-100, a fungicide that contains pentachlorophenol and mercury was used by Seaboard Lumber for lumber treatment until approximately 1977. This treatment was spray-applied in the northeastern portion of the mill, after lumber exited the planner shop. The spray system was installed in 1970. A dip tank may have been used prior to 1970 (ESL 1995).
- 1970 to 1984: Oil was routinely changed in Seaboard Lumber vehicles in an area to the northeast of the new oil house. The area is referred to as the oil pit (ESL 1992).
- 1974: A new oil house replaced the original oil house. Lubricating oil was stored in five 300-gallon spigot tanks (Herrera 1996).
- 1980s: The piping for the locomotive crane fuel tank was removed (Tank 50), transformers were installed in the area adjacent to the welding shop (Herrera 1996).
- 1982: A mill addition was constructed in the location of the old oil house (ESL 1992).
- 1983: Approximately 200 gallons of lubricating oil were released from the new oil house into a floor drain that emptied into the asphalt paving. The oil flowed across the paved asphalt into the ground of an unpaved area (Herrera 1996).
- May 1984: Seaboard Lumber ceased operations (ESL 1992).
- 1985: The mill was dismantled and the transformers that were installed in 1980 were removed by Seattle City Light (Herrera 1996).

PACCAR

PACCAR purchased the property in 1987. PACCAR leased the facility to various tenants, including Northwest Container Services. Little information regarding the tenants' operations was available for review; however, the operations appear to have been primarily shipping container storage and repair, pallet storage and repair, and use of the buildings for offices. In 1990, the Alaska Freight Building was demolished (ESL 1992).

Northwest Container Services

Northwest Container Services operated on the property from approximately 1987 to 1994. The company maintained refrigerated containers. Waste generated by these operations included used paint thinner, used oil, used freon, and used lead-acid batteries. In 1991, solvent spilled on parcel 3670 in the area leased by Northwest Container Services (ESL 1992).

Underground and Aboveground Storage Tanks

This property has had various storage tanks in operation throughout its history, including five known ASTs and six USTs (Figures 21 and 22).

Tank No.	Type	Size (Gallons)	Contents	Dates	Status
43	UST	2,100	Heating oil	Unknown-1999	Removed
44	UST	500	Gasoline	Unknown-1986	Unknown
45	UST	8,000	Diesel	1968-1988	Removed
46	UST	10,000	Diesel	1974-1988	Removed

Tank No.	Type	Size (Gallons)	Contents	Dates	Status
47	UST	10,000	Diesel	1974-1988	Removed
48	UST	300	Heating oil	Unknown-1999	Removed
49	AST	1,000	Diesel	1960s-1980	Removed
50-54	AST	300	Lubricating oil	1974-1984	Removed
55-58	AST	Unknown	Diesel	~1972-1974	Removed

Source: ESL 1992; 1995; Herrera 1996; Shannon & Wilson 2001

4.9.3 Regulatory History

Seaboard Lumber

In 1979, cooling waters for the boiler blow-down were found to be directly discharging into the LDW. This discharge was a violation of Seaboard Lumber's NPDES permit (ESL 1992). Ecology performed an inspection in December 1980 and determined that the blow-down discharge had been connected to the sanitary sewer, but non-contact cooling discharge was still discharged to the LDW (Ecology 1980).

Seaboard Lumber ceased operations in May 1984 and began dismantling the lumber mill (ESL 1992. Ecology cancelled NPDES Permit No. WA-002230-6 on October 5, 1984 (Ecology 1984).

In March 2003, Ecology stated that groundwater monitoring wells, confirmation sampling, and a restrictive covenant were required at Herring's House Park in order to issue an NFA for the property with regard to the cleanup activities that were performed prior to the restoration of the park (Ecology 2003a).

Ecology issued an NFA for the property in October 2011.

PACCAR/Northwest Container Services

Puget Sound Air Pollution Control Agency (PSAPCA) issued a Notice of Violation (NOV) on September 10, 1992, to PACCAR for fugitive dust emissions by Northwest Container (ESL 1992).

In November 1996, PACCAR notified Ecology that free oil product was discovered on parcel 3670 during construction of a storm drain that crossed parcels 3680 and 3670 (present day Evergreen Trails and Herring's House Park properties). Ecology noted that parcel 3670 would be remediated during the habitat restoration project (Ecology 1996f).

Evergreen Trails/Gray Line of Seattle

SPU and Ecology performed a joint stormwater compliance inspection at Gray Line on February 7, 2006. Bus parts were being stored both inside the facility and outside. Parts stored outside were not covered. The catch basins and oil/water separators needed to be cleaned. Ecology requested that the facility resume submitting DMRs, which had not been submitted since the first quarter of 2005 (Ecology 2006a; SPU 2006a). SPU identified the following corrective actions (SPU 2006b):

- Prepare and implement a spill prevention and cleanup plan, post it next to the spill kits at the facility, and train employees on the plan and use of spill kits.
- Clean all catch basins and the oil/water separators on a regular basis.
- Cover all engine and oily bus parts that are stored outside.

SPU performed a follow-up inspection on March 23, 2006. All corrective actions had been implemented and the facility was in compliance (SPU 2006c,d).

Ecology performed a stormwater compliance inspection in May 2008 to determine if Gray Line was eligible for a CNE certificate. The potential for stormwater contamination via the bus terminal and servicing operations made the facility ineligible for the CNE certification under conditions of the ISGP. Ecology determined that Gray Line could suspend analyzing stormwater discharges for oil and grease and copper. Several vehicles were leaking fluids and heavy oil stains were observed in the parking area. Vehicle parts stored outdoors were covered with plastic tarps. Ecology identified the following corrective actions (Ecology 2008b):

- Cleanup areas with accumulated sediment.
- Inspect and clean all catch basins as needed.
- Identify and fix the sources of vehicle leaks.
- Ensure that drip pans are not exposed to stormwater.
- Stop pollutants from entering the catch basin near the trash compactor.
- Prepare and implement spill prevention and cleanup plan.
- Resume analyzing stormwater discharges for turbidity and pH.

4.9.4 Environmental Investigations and Cleanups

Several environmental investigations have been conducted at the former Seaboard Lumber property. Sample locations are shown on Figures 22 through 25 and a summary of chemicals that exceeded soil and groundwater screening levels are provided in Tables 19 and 20. Summaries of all chemicals detected in soil, groundwater, and surface water at the facility are included in Tables F-10 through F-12.

Evergreen Trails Property (Parcel 3680)

Environmental Site Reconnaissance (1987)

In 1987, PACCAR performed a reconnaissance of the property to identify potential environmental contamination resulting from Seaboard's operations. The following potential sources of contaminants were identified (Hart Crowser 1987):

- Two 10,000-gallon diesel USTs (Tanks 46 and 47) used as a backup fuel source for the kiln;
- A 500-gallon gasoline UST (Tank 44) near the former office building;
- Approximately 27 PCB-filled transformers, which were removed from the property in 1984;

- Past use of a spray-applied fungicide to treat hemlock;
- Waste sandblast grit inside the main building, apparently left by Crowley Maritime; and
- Locomotive maintenance activities in the 1950s, which likely included use of solvents, fuels, and lubricants.

Underground Storage Tank Removal (1987)

Three diesel USTs (Tanks 45, 46, and 47) were removed from the property in January 1988 (Figure 22). Waste water was removed from the USTs prior to the removal. Three soil samples were collected from each tank excavation and analyzed for petroleum hydrocarbons. TPH concentrations were below current MTCA Method A cleanup levels. An attempt was made to locate and remove the 500-gallon gasoline UST (Tank 44) near the former office building. It was not located and it was decided to abandon the effort since the tank had been pumped out by METRO during excavation of the Renton sewer line at the western property line (Hart Crowser 1988).

Phase I Environmental Site Assessment (1991)

A Phase I ESA was performed in 1991 to identify operations that resulted in environmental contamination at the property. PACCAR and Northwest Container Services were operating at the property. Numerous cans of paint and drums of oil were observed at the property. Pavement was cracked and stained with oil and paint. A partially sunken barge and two ships were docked at the facility's pier. Rust-colored soil was observed at the shoreline (Kennedy/Jenks 1991c).

Phase I and II Environmental Audit (1992)

A Phase I & II environmental audit was performed in 1992 for this parcel; however, several areas of petroleum-contaminated soil were identified on former Seaboard Lumber parcels 3670 and 3680 (ESL 1992):

- The former location of the steam crane fueling system, which included a crude oil/diesel AST (Tank 49) and piping;
- Around piping of the Alaska Freight Building (also lead-contaminated soil);
- In surface soil in the northeastern portion of parcel 3680 (also PAH-contaminated soil);
- The area of the former 500-gallon gasoline UST (Tank 44);
- The maintenance area of Northwest Container Services; and
- The former maintenance area for the original mill.

An audit of the property (Northwest Container's operations) indicated waste detergent containing dodecylbenzene sodium sulfonate was discharged to the ground in an area with no pavement or low-quality pavement, stormwater runoff from shop areas mixed with waste oil and possibly solvents and paint were collecting in low spots on the pavement, and numerous spills were in the oil storage area.

In August 1992, six groundwater monitoring wells were installed on parcel 3680. Concentrations of arsenic, lead, zinc, PAHs, pentachlorophenol, 1,2-dichlorobenzene, and petroleum hydrocarbons in soil exceeded MTCA cleanup levels and/or the draft soil-to-sediment screening levels. PAHs, phthalates, other SVOCs and toluene were detected in groundwater; concentrations of these chemicals were below MTCA cleanup levels and/or the draft groundwater-to-sediment screening levels.

Remedial Investigation and Cleanup (1992 to 1994)

More than 44 test pits were excavated in the six contaminated areas identified by the 1992 Phase II environmental audit. Composite samples were collected from the sidewalls and bottom of each test pit and analyzed for petroleum hydrocarbons; discrete samples were analyzed for lead and PAHs (ESL 1995).

After Evergreen Trails purchased the property, an extensive remedial excavation was performed to remove soil contaminated by petroleum hydrocarbons, lead, and PAHs. An area of 114,224 sq ft (approximately 2.6 acres) was excavated to approximately 2 to 2.5 feet bgs (Figure 23). Confirmation soil sampling indicated that all soil with lead concentrations greater than 250 mg/kg had been removed from the property. Approximately 2,745 tons of petroleum-contaminated soils and 225 tons of lead/PAH-contaminated soils were removed from the property (ESL 1995).

Following the remedial excavation, groundwater samples were collected from wells MW-1 through MW-6. The samples were analyzed for lead and petroleum hydrocarbons, which were not detected (ESL 1995).

Herring's House Park (Parcels 3670 and 9104)

Extensive sampling, remediation, and restoration has been performed at the Herring's House Park property. A brief summary of each investigation is provided in the following sections. Sample locations are provided on Figures 24 and 25 and chemical data are summarized in Tables 19 and 20. Additional information is provided in Appendix F and in the documents listed below:

- *Seaboard Lumber Site, Draft Phase II Site Investigation*, May 1996 (Herrera 1996)
- *Seaboard Lumber Site, Phase III Site Investigation*, January 1997 (Herrera 1997b)
- *Corrective Action Report, Seaboard Lumber Aquatic Habitat Restoration Project for Consent Decree C90-395WD, Seattle, Washington,* March 2001 (Shannon & Wilson 2001).

Phase II Site Investigation (1996)

Between March 12 and April 7, 1996, a Phase II site investigation was performed to determine whether contaminants were present in the upland and subtidal areas of this property. Potential areas of concern were identified based on the results of the 1992 Phase I environmental audit and 1993–1994 remedial actions performed at the Evergreen Trails property (Herrera 1996):

- The area of the former 8,000-gallon diesel UST (Tank 45),
- The area of the former 500-gallon gasoline UST (Tank 44),
- The two oil house locations,
- Former transformer locations near the old oil house and the welding shop/switch room,
- The former oil service pit,
- A former AST location,
- The former wood preservative spray booth, and
- Potential lead-contaminated soils surrounding the former Alaska Freight Building.

During the investigation, six surface soil samples were collected, 28 subsurface samples were collected from ten soil borings (MW-1 through MW-7 and SB-1 through SB-3) and 18 test pits, seven groundwater monitoring wells were installed, and 20 surface sediment samples (SD-1 through SD-20) were collected (Figure 24).

Soil samples were analyzed for the presence of petroleum hydrocarbons, PCBs, PAHs, pentachlorophenol, mercury, and other metals. Groundwater samples were analyzed for diesel- and heavy oil-range hydrocarbons. Sediment samples were tested for metals (antimony, arsenic, cadmium, copper, chromium, nickel, lead, mercury, silver, and zinc), phenols, PAHs, chlorinated aromatics, chlorinated aliphatics, phthalate esters, and PCBs (Herrera 1996).

Concentrations of arsenic, cadmium, lead, mercury, benzo(a)pyrene, benzo(g,h,i)perylene, cPAHs, petroleum hydrocarbons, pentachlorophenol, and silver in soil exceeded MTCA cleanup levels and/or the draft soil-to-sediment screening levels. Diesel- and heavy oil-range hydrocarbon concentrations in groundwater exceeded MTCA Method A cleanup levels. In sediment, concentrations of PCBs, phenol, and zinc exceeded the SQS. PCB concentrations also exceeded the CSL (Herrera 1996).

Phase III Site Investigation (1996)

The Phase III investigation was performed in November and December 1996 to further characterize the chemical composition, concentration, and extent of contamination in the impacted areas identified through previous investigations. Soil samples were collected at 26 soil borings (SB-4 through SB-27) and 19 test pit locations (TP-20 through TP-38). Groundwater was sampled at three existing wells (MW-2, MW-4, MW-5B) and two new wells (MW-6R, MW-8) that were installed during the investigation (Figure 24) (Herrera 1997b).

Soil and groundwater samples were analyzed for gasoline- and diesel-range hydrocarbons, BTEX, metals, pentachlorophenol, PAHs, and other semivolatiles and/or PCBs. In soil, concentrations of metals, pentachlorophenol, PAHs, and PCBs exceeded the MTCA cleanup levels and/or the draft soil-to-sediment screening levels. In groundwater, concentrations of arsenic and heavy oil-range hydrocarbons exceeded the MTCA cleanup levels (Herrera 1997b).

Habitat Restoration Project (1997–2001)

The goals of the habitat restoration project were to maximize the aquatic habitat of the property, create a low-wave energy environment, provide a perimeter buffer of upland vegetation, remove and/or contain residual contaminants, and develop public access areas. To achieve this goal an intertidal basin was developed, shoreline protection was constructed, improvements were made to the aquatic and upland habitats, and the following remedial actions were performed (Shannon & Wilson 2001):

- Removal of a 9,200 sq ft dock structure and approximately 302 supporting piles,
- Extension of the 30-inch storm drain line to allow for shoreline revetment construction,
- Removal of two heating oil USTs (Tanks 43 and 48),
- Removal and off-property disposal of soil with concentrations of non-petroleum contaminants that exceeded MTCA Method A cleanup levels,
- Removal and off-property disposal of soil with concentrations of petroleum contaminants that exceeded MTCA Method B cleanup levels, and
- Capping any remaining contaminated soil with 2 feet of clean material.

Soil removal activities were performed in the following areas (Shannon & Wilson 2001).

Location	Contaminated Materials Removed (tons)
Former Spray Booth (Area 3)	417
Former Spray Booth (Area 4)	1,358
Alaska Freight Building (Area 6)	9,119
Former Service Pit (Area 7)	5,096

Approximately 15,590 tons of impacted soil were excavated and disposed of at the Olympic View Landfill. After completion of the habitat restoration, soil contaminated with arsenic, cadmium, chromium, lead, mercury, PAHs, pentachlorophenol, and petroleum hydrocarbons was left in place. A 2-foot cap of clean material was installed above the contaminated soil (Shannon & Wilson 2001). These areas are shown on Figure 25.

Confirmation soil samples were collected in the soil removal areas. Concentrations of arsenic, lead, mercury, pentachlorophenol, and diesel-range hydrocarbons remaining in soil exceeded MTCA cleanup levels and/or draft soil-to-sediment screening levels (Table 19).

Chemical	> MTCA Method A	> MTCA Method B	> Soil-to-Sediment Screening Level
Arsenic		●	
Lead	●		●
Mercury	●		●
Pentachlorophenol	●		●
Diesel-range hydrocarbons	●		

4.9.5 Potential for Sediment Recontamination

Lead, mercury, zinc, PCBs, PAHs, n-nitroso-di-n-propylamine, and benzyl alcohol have been detected at concentrations above the SQS in sediment samples collected near the former Seaboard Lumber property. The dioxins/furans TEQ exceeded the LDW background in one sample. Copper exceeded the Marine Chronic WQS in Seep 69, which is offshore of the property. The potential for sediment recontamination via this property is summarized below by transport pathway.

Stormwater and Surface Runoff

Evergreen Trails

Stormwater from Evergreen Trails is discharged to the intertidal bay at Herring's House Park, which is hydraulically connected to the LDW. Industrial operations at Evergreen Trails are performed indoors, with the exception of fueling activities. In May 2008, Ecology inspected the Evergreen Trails facility and determined that stormwater was exposed to fuel and oil and that the storm drain system needed to be cleaned. Evergreen Trails' SWPPP indicates that appropriate source control BMPs have been implemented. The potential for LDW sediment recontamination via this pathway is low.

Herring's House Park

Stormwater at Herring's House Park infiltrates the ground surface. Contaminants in stormwater, if any, may be conveyed to groundwater and released to the LDW via the groundwater discharge and leaching pathways.

Spills

Evergreen Trails

Evergreen Trails is not immediately adjacent to the LDW. Spills at the property may be conveyed to the intertidal bay at Herring's House Park via the storm drain system. The potential for LDW sediment recontamination is low.

Herring's House Park

Although no industrial activities are performed at Herring's House Park, there is potential that spills or leaks of hazardous materials such as petroleum products could occur in the parking area. The potential for sediment recontamination via this pathway is low.

Soil and Groundwater

Previous environmental investigations have confirmed the presence of PCBs, PAHs, pentachlorophenol and other SVOCs, metals, and petroleum hydrocarbons in soil at concentrations exceeding the MTCA Method A cleanup levels and/or the draft soil-to-sediment screening levels. Arsenic and petroleum hydrocarbons have been detected in groundwater at concentrations exceeding MTCA cleanup levels. Extensive remedial activities have been

performed at the property to remove contaminated soil. Concentrations of arsenic, lead, mercury, pentachlorophenol, and diesel-range hydrocarbons above MTCA cleanup levels and/or the draft soil-to-sediment screening levels remain in soil. Groundwater samples collected in the 1990s contained concentrations of arsenic and petroleum hydrocarbons exceeding MTCA cleanup levels. More recent groundwater data, if any, were not available for review. The potential for sediment recontamination via this pathway is low to moderate.

Bank Erosion/Leaching

The banks along the Herring's House Park intertidal bay are vegetated. The shoreline with the LDW is armored. Soil contaminated with PAHs, metals, and petroleum hydrocarbons were left in place at the shoreline following the intertidal restoration. Diesel-range hydrocarbon concentrations exceeded the MTCA Method A cleanup level and lead concentrations in soil exceeded the draft soil-to-sediment screening level. The potential for sediment recontamination via bank erosion/leaching pathway is low to moderate.

4.9.6 Data Gaps

Information needed to assess the potential for sediment recontamination associated with current operations at the property is listed below:

- A follow-up inspection is needed at Evergreen Trails to verify compliance with the corrective actions identified by Ecology in May 2008.

4.10 Port of Seattle Terminal 107

Facility Summary: Port of Seattle Terminal 107	
Tax Parcel No.	0213000046, 1924049103, 2840201235, 7666703705, 7666703710
Address	0046: 4618 West Marginal Way SW 98106 1235: 4816 West Marginal Way SW 98106 3705: 1203 SW Alaska Street 98106 3710: 1203 SW Alaska Street 98106 9103: 5402 West Marginal Way SW 98106
Property Owner	Port of Seattle
Parcel Size	0046: 0.10 acre (4,440 sq ft) 1235: 0.08 acre (3,506 sq ft) 3705: 0.02 acre (980 sq ft) 3710: 0.01 acre (460 sq ft) 9103: 59.66 acres (2,598,796 sq ft)
Facility/Site ID	15472775: 4800 W Marginal 96168526: Vacant UST 2482 Marginal Way SW
SIC Code(s)	9999: Nonclassifiable Establishments (4800 W Marginal)
EPA ID No.	WAD982654188 – inactive (4800 W Marginal)
NPDES Permit No.	None
UST/LUST ID No.	UST: 2482 – inactive (Vacant UST 2482 Marginal Way SW)

Terminal 107 is comprised of five parcels that are adjacent to the LDW, including most of the tidelands between Kellogg Island and the western bank of the LDW between RM 0.5 and 1.0 West and includes Kellogg Island. The Duwamish Bike Way and West Marginal Way SW are west of the property. Herring's House Park is north of the property and Lafarge Cement is to the south.

Buildings are present on the property; however, the building details were not listed in King County tax assessor records. A maintenance building, small installations, and other park structures are present in the Terminal 107 Park area (SoundEarth 2011a.

4.10.1 Current Operations

Terminal 107 consists of property on the western shoreline of the LDW (upland Terminal 107) and Kellogg Island (Figure 26). The northern end of upland Terminal 107 is the Terminal 107 Park and comprises 15.5 acres. The southern end of Terminal 107 is leased to Alaska Marine Lines and comprises 3.3 acres. Railroad tracks are present along the western boundary of the property. Kellogg Island is a marine animal and bird sanctuary and comprises 15 acres. The remaining 25.9 acres is submerged land. The shoreline of Terminal 107 is over 8,500 linear feet and consists of exposed soil and vegetated slopes. The street address for Terminal 107 is 5402 West Marginal Way SW (SoundEarth 2011a). The Port historically used 4700 West Marginal Way SW as the address for Terminal 107 (Port of Seattle 1976).

Alaska Marine Lines stores semi-trailers on a gravel-covered parking surface. A paved driveway and turnaround area is present (SoundEarth 2011a). Lafarge Cement maintains a lease with the Port for use of the railroad tracks along the southern end of the property (Port of Seattle 2012b]).

The marine animal and bird sanctuary on Kellogg Island was developed in the 1980s (Sound Earth 2011a).

Stormwater runoff flows generally to the east towards the channel between upland Terminal 107 and Kellogg Island (Figure 27). A catch basin (7092) is present in the parking area in the central portion of the Terminal 107 Park. Stormwater from the parking area is conveyed to a grass swale. In the southern portion of the Terminal 107 Park, stormwater flows to two swales before discharging to drain fields (Phoinix 2007a; SoundEarth 2011a). During a reconnaissance visit in April 2011, a pipe outlet was observed near a ravine on the northern portion of the Terminal 107 Park. No discharge was observed from the pipe. The origin of the pipe is unknown (SoundEarth 2011a).

4.10.2 Historical Operations

Historical features at Terminal 107, including USTs, are shown on Figure 28.

Upland Terminal 107

A. Abrahamson Brick Co. operated a brick company on Terminal 107 property from the 1880s to around 1965, in the area currently occupied by Alaska Marine Lines. The factory included an engine house and a dry brick kiln. Broken bricks were used as fill along the shoreline. A small amount of oil was reportedly used during the production of the bricks. Oil leached from the

broken bricks (used as fill) into the waterway resulting in a sheen on the water. All buildings associated with the brick factory were removed by 1968 (A. Abrahamson Brick Co. 1917; Foster 1945; SoundEarth 2011a). **The Mutual Materials Company** used the landing at the brick factory for loading its materials (Little & Leader 1941). Lafarge later filled this area with CKD (Dames & Moore 1968).

Lipsett Steel Products operated a scrap metal yard in the area north of the A. Abrahamson Brick Co. and south of the Goodspeed's Addition from as early as the 1950s until the 1960s (SoundEarth 2011a). This area is currently occupied by Alaska Marine Lines.

The Terminal 107 Park was initially developed as part of the Goodspeed's Addition in 1890. A house and church were built on the property. Four additional residences were added by 1908. By 1930, 20 residential structures and a general store were present on the property and several houseboats were present along the shoreline. The houseboats were built on the upland Goodspeed's Addition. In the 1960s, 56 residential and commercial structures were present on the property (SoundEarth 2011a).

In 1957, **L.E. Carter Paint Company** purchased three lots on Block 7 of the Goodspeed's Addition (currently the southwest corner of Terminal 107 Park). The company added a warehouse and storage shed in 1962. This facility maintained a 6,000-gallon UST (Tank 37), a 4,000-gallon UST (Tank 38), and two 7,500-gallon USTs (Tanks 39 and 40); the status of these tanks is unknown. These tanks contained a variety of chemicals used in the production of paint thinning agents, solvents, and paint binders including: toluene, xylene, paint thinner, butyl alcohol, isobutyl alcohol, isopropyl alcohol, methyl amyl alcohol, butyl acetate, 2-butoxyethanol, 2-ethoxythylacetate, diisobutyl ketone, ethyl acetate, isobutyl acetate, isopropyl acetate, and methyl isobutyl ketone. The buildings associated with the paint company were demolished between 1985 and 1989 (SoundEarth 2011a).

In 1967, two 3,000-gallon fuel USTs (Tanks 41 and 42) and two dispenser pump islands were installed at the northwest corner of Block 7 of the Goodspeed's Addition. The fueling area was apparently used only by **D.V. Klier**, a brick-laying contractor. The status of the USTs is unknown. The dispenser pump islands were demolished in 1976 (SoundEarth 2011a).

An auto salvage and junk yard was operated by **Riverside Auto Wrecking** on Blocks 6 and 7 of the Goodspeed's Addition until 1969. The auto salvage and junk yard was razed and filled in 1969 (SoundEarth 2011a).

Between the late 1960s and 1976, the Port began purchasing the properties that comprised the Goodspeed's Addition. Following the acquisition, the Port demolished the remaining structures at Goodspeed's Addition (UW OPA 1977; SoundEarth 2011a).

In May 1985, the Port Commission adopted a resolution to preserve and restore fish and wildlife habitats at Terminal 107 instead of developing the property as a terminal (Parametrix 1990).

Kellogg Island

Kellogg Island was originally part of the larger Edwards Island. From the late 1890s to the 1910s, a barn was present at the southern end of the island (UW OPA 1977). Between 1914 and

1916, the navigable channel was dredged through the LDW; Kellogg Island was formed when the channel was dredged through Edwards Island. The dredging spoils were placed on Kellogg Island (SoundEarth 2011a). The Port purchased Kellogg Island from **Foss Tug Company** in 1969. Foss Tug most likely used the island for moorage (UW OPA 1977).

In August 1968, a preliminary soils investigation was performed in preparation for the proposed development of the area as a marine shipping terminal. Kellogg Island was planned to be developed for heavy industrial use. Kellogg Island was found to be composed of a mixture of hydraulic fill, sand, silt, and sediments (Dames & Moore 1968).

In May 1985, the Port Commission adopted a resolution to preserve and restore fish and wildlife habitats at Terminal 107 instead of developing the property as a terminal. The original Kellogg Island was once a very large wetland area (over 100 acres); however, by 1985 only 5 acres of wetland area remained (Parametrix 1990).

Fill History

Extensive fill material is present at Terminal 107. Fill activities were performed from the 1880s through the 1920s and from the 1950s through 1976. The maximum thickness of fill encountered at the terminal is 50 feet. Fill material on Kellogg Island consists of fine to medium sand. Fill materials on the upland portion of the terminal consist of sand, gravel, clay, brick fragments, and CKD. The CKD is present on the southern portion of the terminal, near Lafarge Cement. Dredge spoils from Terminals 19 and 20 and the 16th Avenue Bridge were also used as fill at Terminal 107 (SoundEarth 2011a). Dredge spoils from Terminal 20 that were disposed of at Terminal 105 were contaminated with PCBs; however, no records were found which indicate that the spoils used as fill at Terminal 107 were contaminated.

In 1938, the eastern shore of Kellogg Island was dredged. The dredge spoils were deposited at Terminal 108. This dredging gave Kellogg Island its present-day eastern shoreline (SoundEarth 2011a).

In 1966, the channel between Kellogg Island and the west bank of the LDW was dredged and a levee was built around the island. Dredge spoils were disposed of on the island. Approximately 126,200 cubic yards of dredge spoils from Terminal 20 were deposited on Kellogg Island between 1973 and 1976. PCBs, PAHs, BEHP, and metals were present in the dredge spoils (Port of Seattle 1973; Parametrix 1990; SoundEarth 2011a).

4.10.3 Regulatory History

Information regarding regulatory history for this property was not available for review.

4.10.4 Environmental Investigations and Cleanups

In May 2011, five bank soil samples were collected at Terminal 107 (Figure 7d). The samples at Terminal 107 were collected from a layer that was identified as possible CKD. Soil samples were analyzed for metals, PCBs, PAHs, other SVOCs, TPH, TBT, polybrominated diethyl ethers, pesticides, and dioxins/furans. Concentrations of arsenic, lead, and zinc exceeded the SQS and

CSL. Concentrations of arsenic and the dioxin/furan TEQ exceeded LDW background levels (Table 6) (Hart Crowser 2012).

	Terminal 107		
Chemical	**>SQS**	**>CSL**	**>LDW Background**
Arsenic	●	●	●
Lead	●	●	
Mercury			
Zinc	●	●	
cPAHs TEQ			
Dioxin/Furan TEQ			●
PCBs			

No additional environmental investigations or cleanups have been performed at Terminal 107 (SoundEarth 2011a).

4.10.5 Potential for Sediment Recontamination

Lead, mercury, zinc, PCBs, PAHs, butyl benzyl phthalate, phenol, n-nitroso-di-n-propylamine, and benzyl alcohol have been detected at concentrations above the SQS in sediment samples collected between upland Terminal 107 and Kellogg Island. Phenol and 4-methylphenol concentrations exceeded the SQS in sediment samples collected near the eastern shore of Kellogg Island. The dioxins/furans TEQ exceeded the LDW background in three samples collected between upland Terminal 107 and Kellogg Island. Copper exceeded the Marine Chronic WQS in Seep 69, which is offshore of the property. In bank soil samples collected from upland Terminal 107, concentrations of arsenic, lead, and zinc exceeded the SQS and CSL. The dioxins/furans TEQ exceeded the LDW background level in one bank soil sample. The potential for sediment recontamination via this property is summarized below by transport pathway.

Stormwater and Surface Runoff

There are no stormwater structures or outfalls located on Terminal 107 (Phoinix 2007a). Sheet flow is observed toward the southeast side of the property and runs out of two swales that outlet to drain fields. The potential inputs to a pipe located near the ravine on the northern portion of the Terminal 107 Park are unknown (SoundEarth 2011a). Contaminants in stormwater, if any, may be conveyed to groundwater and released to the LDW via the groundwater discharge and leaching pathways.

Spills

Overwater activities are not performed at Terminal 107. There is potential that spills or leaks of hazardous materials such as petroleum products could occur in the parking area. The potential for sediment recontamination via this pathway is low.

Soil and Groundwater

Historical operations at the property may have resulted in releases of petroleum hydrocarbons, metals, industrial cleaners, and solvents to soil and groundwater at this property. No environmental investigations have been performed to evaluate the potential impacts. Historical operations performed by A. Abrahamson Brick Yard, Riverside Auto Wrecking, and the metal salvage yard represent potential sources of sediment COCs. Contaminants in soil and groundwater, if any, may represent a potential source of sediment recontamination.

Bank Erosion/Leaching

Over 8,500 linear feet of unimproved shoreline is present at Terminal 107. Recent bank soil samples collected from the CKD fill contained arsenic, lead, and zinc at concentrations exceeding the SQS and CSL; however, metals concentrations in sediment samples collected adjacent to the fill area did not exceed the SQS/CSL. No other areas of the shoreline have been investigated. Contaminants in bank soil, if any, may represent a potential source of sediment recontamination.

4.10.6 Data Gaps

Information needed to assess the potential for sediment recontamination associated with current operations at the property is listed below:

- Additional information is needed to determine the potential inputs to a pipe located near the ravine in the northern portion of the Terminal 107 Park.

- In order to determine the potential for sediment recontamination via the soil and groundwater and bank erosion/leaching pathways, additional information is needed to determine if soil and groundwater are contaminated due to the historical industrial operations performed at Terminal 107.

5.0 Upland Properties: SW Dakota Street SD Basin

Upland properties and facilities within the SW Dakota Street SD basin that could potentially affect sediments near the Spokane Street to Kellogg Island source control area include the following:

- Former Fraser Properties
- Tryg Winquist
- West Seattle Recycling Center
- Active Environmental
- Former Concrete Restoration
- Heathco and Penthouse Drapery
- Raynroof Roofing
- 4101 West Marginal Way Business Park and its tenants
    - Aquatic Enterprises
    - Cohesive Garage
    - Metal Shorts
    - Wheelchairs Plus
- Strutz Property
- Seattle Parks and Recreation Westbridge Maintenance Facility

The upland properties are not adjacent to the LDW; therefore, surface runoff or spills directly to the waterway and bank erosion are not potential sediment recontamination pathways and will not be discussed in this section. Contaminants from upland properties could be transported to the LDW via stormwater, groundwater, and CSO discharge pathways.

Stormwater and Spills

- Stormwater associated with these properties is conveyed to the sediments adjacent to the Spokane Street to Kellogg Island source control area through the SW Dakota Street SD system. Sediment COCs suspended in stormwater, if any, may be conveyed to the LDW.
- If spills occur at these properties, the spilled materials may flow directly to storm drain catch basins on or adjacent to the property or become commingled with stormwater and be conveyed to the catch basins.
- Contaminants in soil and groundwater beneath these properties, if any, may leach into groundwater and infiltrate the storm drain system. Any concentrations of sediment COCs are likely to be highly diluted, especially when the infiltrating groundwater commingles with stormwater.

Groundwater Discharge

For many of the upland properties within the SW Dakota Street SD basin, there is no available information that indicates the presence of soil and/or groundwater contamination. Soil and/or

groundwater investigations have been performed at the facilities listed below. Additional information regarding the environmental investigations and cleanups is included in the facility-specific sections.

Facility	Contaminated Soil	Contaminated Groundwater
Former Concrete Restoration	●	
4101 West Marginal Way Business Park	●	
Strutz Property		
Seattle Parks and Recreation Westbridge Maintenance Facility	●	●

Combined Sewer Overflow Discharges

Operations or activities at these properties may result in discharges to the sanitary sewer. Contaminants in wastewater (if any) may be transported to the LDW during a CSO event via the Duwamish West CSO. Contaminants in soil and groundwater beneath these properties, if any, may leach into groundwater and infiltrate the combined sewer system. Therefore, there is potential for sediment recontamination associated with combined sewer discharges from these properties. Combined sewer discharges are significantly diluted prior to discharge. The most recent event at the Duwamish West CSO was in December 2007; approximately 6.3 million gallons discharged through the CSO during a three-day storm (King County 2008). The potential that contaminants from these properties will recontaminate the sediments near the Spokane Street to Kellogg Island source control area is very low; therefore, this pathway is not discussed in the facility-specific sections.

5.1 Former Fraser Properties

Facility Summary: Former Fraser Properties	
Tax Parcel No.	9349900331, 7547300667, 7666703920
Address	0331: None 0667: 3801 West Marginal Way SW 98106 3920: 3601 West Marginal Way SW 98106
Property Owner	0331 & 0667: TTP LLC 3920:3601 W Marginal Way SW LP
Parcel Size	0331: 0.17 acre (7,250 sq ft) 0667: 0.23 acre (10,125 sq ft) 3920: 0.46 acre (20,010 sq ft)
Facility/Site ID	72321478
SIC Code(s)	3731: Ship Building and Repairing
EPA ID No.	WAD988487997 – inactive (Fraser Inc./Pacific Rim Diesel) WAD981766306 – inactive (Fraser Boiler)
NPDES Permit No.	None
UST/LUST ID No.	None

Fraser Properties formerly operated in the facilities at parcels 0331, 0667, and 3920 (Figure 5b). Parcel 0331 is bordered by Marginal Place SW to the east, SW Charlestown Street to the south, and properties owned by Seattle Parks and Recreation to the west and north. Parcel 0667 is located to the south of parcel 0331 and is bordered by Marginal Place SW to the east, Kruse Brothers Construction to the south, 18th Avenue SW to the west, and SW Charlestown Street to the north. Parcel 3920 is located to the east of Parcel 0331. The triangular-shaped parcel is bordered by West Marginal Way SW to the east, Marginal Place SW to the west, and a right-of-way area to the north. The Spokane Street Bridge passes over the right-of-way area situated between West Marginal Way and Marginal Place SW.

One building, a 10,125 sq ft warehouse built in 1971, is located on parcel 0667. One building is present on parcel 3920. The 28,109 sq ft light industrial manufacturing building was built in 1966 and has been subdivided into four units. No buildings are present on parcel 0331.

5.1.1 Current Operations

Global Diving operates in the building located on parcel 0667 and may use parcel 0331 for storage or employee parking. **Rehabitat Northwest**, a residential developer and builder, currently operates in the facility on parcel 3920 (Rehabitat Northwest 2012). No additional information regarding current operations at these facilities was available for review.

5.1.2 Historical Operations

Fraser Inc. operated three businesses on parcels 0331, 0667, and 3920. Fraser Boiler operated on parcel 3920. **Pacific Rim Diesel** and **Olympic Diesel** operated on parcels 0331 and 0667. The companies began operating at these facilities in approximately 1995. Pacific Rim Diesel and Olympic Diesel declared bankruptcy in May 2000 and ceased operations in March 2001 (Ecology 2002b,c). Fraser Inc. later moved to 8000 5th Avenue S (within the Riverside Drive source control area) under new ownership (Walton 2002).

Fraser Boiler repaired boilers for ships and on-shore industries. Fraser Boiler was classified as a small quantity generator (SQG). Waste streams generated during repair activities included boiler pressure test waste water, used lead-acid batteries, spent paint thinner, and shop rags (Ecology 1998a).

5.1.3 Regulatory History

Ecology performed a dangerous waste compliance inspection of Fraser Boiler on January 22, 1998. Spent lead acid batteries were stored outdoors and without cover. The area was subject to stormwater runoff and occasional high water flooding. Waste paint thinner was improperly stored and two batteries were broken open with their contents spilling onto the pavement. Ecology identified the following corrective actions (Ecology 1998a):

- Properly store spent batteries in a secure, elevated, and contained area.
- Properly store and dispose of waste paint thinner.
- Cleanup the area affected by the broken batteries, including solids from a catch basin.

Fraser Boiler completed these actions in February 1998 (Fraser Boiler 1998).

During this inspection, floor drains were identified inside of the warehouse. Water from boilers undergoing pressure testing was discharged to the floor drains. Ecology directed Fraser Boiler to contact KCIW to help determine if the floor drains were connected to the sanitary sewer (Ecology 1998a).

On August 17, 1999, Fraser Inc. and Pacific Rim Diesel were found to be in violation of WAC 173-303-070 for failure to designate solid wastes (Ecology 2002a). Ecology records indicate that compliance was achieved in September 2000 (Ecology 2002c).

Ecology and the City of Seattle performed a Hazardous Waste and Toxics Reduction (HWTR) Program compliance inspection at the property on February 11, 2002, following receipt of a complaint regarding waste materials stored at the property and a Notice of Motion to Abandon the property, which included the waste materials (Ecology 2002c; Foster Pepper 2002). A poly tank and unmarked 55-gallon drums were stored within 15 feet of a storm drain catch basin without proper secondary containment. Paint cans, roofing compounds, and more 55-gallon drums were stored under cover and on pallets. Tires, office furniture, lockers, appliances, and scrap metal were inside the Fraser Boiler building. Grease, oil, sealers, and paint thinners in original containers, unmarked 55-gallon drums, and a 500-gallon tank (half-filled with a caustic solution) were stored inside the Pacific Rim Diesel building. Ecology identified the nine compliance problems related to the improper designation, accumulation, containment, and management of wastes (Ecology 2002c).

EPA performed an inspection on March 7, 2002. The EPA inspector reported the presence of numerous waste containers (including 55-gallon drums) and seven tanks on the property. The inspector noted that waste containers and tanks were easily accessible to the public (Barber 2002).

Ecology performed an inspection of Fraser Boiler and Pacific Rim Diesel on March 26 and 27, 2002, to inventory the waste containers that remained on the property. Over 500 waste containers were present (Armbruster 2002). Stained soil was observed in the fenced area directly north of the entrance of the Pacific Rim Diesel building. The inspector noted that this soil could potentially have been contaminated. The caustic tank in the Pacific Rim Diesel building was full of caustic liquid. This liquid also appeared to have spilled in the grating in front of the tank (Yelton 2002).

Ecology performed an inspection on August 7, 2002. A new tenant had begun occupying the inside area of the warehouse. No drums containing dangerous waste remained on the property at the time of the visit (Harding & Walton 2002). The only materials left from Fraser Boiler were two empty 350-gallon totes, several empty 5-gallon buckets, and several empty 50- to 60-gallon oil tanks (Walton 2002).

5.1.4 Potential for Sediment Recontamination

The potential for sediment recontamination via this property is summarized below by transport pathway.

Stormwater

No information regarding the current operations performed by Global Diving and Rehabitat Northwest was available for review. The potential for sediment recontamination related to stormwater from these facilities is unknown.

Groundwater Discharge

Soil and groundwater contamination has not been identified at the property; however, in 2002, Ecology inspectors identified potentially contaminated soil (Yelton 2002). Given the historical operations at this property, there is a potential for soil and groundwater contamination. Potential contaminants in soil and groundwater include, but are not limited to, petroleum hydrocarbons, solvents, and metals. The potential for sediment recontamination via groundwater discharge is unknown.

5.1.5 Data Gaps

- Additional information regarding the current operations performed by Global Diving and Rehabitat Northwest is needed to determine the potential for sediment recontamination via the stormwater pathway.

5.2 Tryg Winquist Construction

Facility Summary: Tryg Winquist Construction	
Tax Parcel No.	7666703900
Address	3839 West Marginal Way SW 98106
Property Owner	Tryg K Winquist
Parcel Size	0.10 acre (4,499 sq ft)
Facility/Site ID	20891
SIC Code(s)	1542
EPA ID No.	None
NPDES Permit No.	None
UST/LUST ID No.	None

Tryg Winquist Construction operates on parcel 3900. The property is bordered by West Marginal Way SW to the east, a vacant lot to the south, 16th Avenue SW to the west and a commercial property to the north. One building is present on this property, a 4,854 sq ft warehouse built in 1979.

5.2.1 Current Operations

Tryg Winquist Construction is a cabinet making business. The company has operated at this location since 1979. Cabinets are built and finished on site. Sawdust generated from cabinet making is pressed to create pellets; resins and adhesives are not used in this process. Two gallons of solvent lacquer thinner are used per year. This lacquer is disposed of at the transfer station. No painting of the cabinets occurs on the property (SPU 2009a).

5.2.2 Historical Operations

Tryg Winquist Construction has operated at this property for 33 years. The company has been the only occupant of the property since 1979. Additional information regarding historical operations was not available for review.

5.2.3 Regulatory History

SPU performed an inspection at Tryg Winquist Construction on March 3, 2009 (SPU 2009a). SPU identified the following corrective actions (SPU 2009b):

- Complete a written spill plan and post at appropriate locations at the facility.
- Educate employees about the spill plan and use of spill response materials.
- Install an outlet trap in the storm drain catch basin.

On December 23, 2009, SPU referred Tryg Winquist Construction to the Environmental Coalition of South Seattle (ECOSS) and determined that the facility had achieved compliance with the corrective actions (SPU2009a).

5.2.4 Potential for Sediment Recontamination

The potential for sediment recontamination via this property is summarized below by transport pathway.

Stormwater

Tryg Winquist Construction completed the corrective actions assigned by SPU in 2009 (SPU 2010a). Potential for sediment recontamination due to current facility operations is low provided that the improvements and source control BMPs are maintained.

Soil and Groundwater

There is no information available that indicates that soil or groundwater contamination is present at this property.

5.2.5 Data Gaps

Tryg Winquist Construction appears to maintain appropriate source control BMPs and has complied with corrective actions identified by SPU. Therefore, no data gaps were identified for this property.

5.3 West Seattle Recycling Center

Facility Summary: West Seattle Recycling Center	
Tax Parcel No.	7547300666
Address	3881 16th Avenue SW 98106

Facility Summary: West Seattle Recycling Center	
Property Owner	Jonathan Howe
Parcel Size	0.47 acre (20,620 sq ft)
Facility/Site ID	2981502
SIC Code(s)	5093
EPA ID No.	None
NPDES Permit No.	None
UST/LUST ID No.	None

West Seattle Recycling Center is located on a triangular parcel located south of the intersection of 16th Avenue SW and 17th Avenue SW. A vacant, industrial lot is south of the property. One building is present on the property, a 6,750 sq ft warehouse, built in 1982.

5.3.1 Current Operations

West Seattle Recycling Center is a recyclable materials and merchant wholesaler. The company accepts car batteries, aluminum cans and scrap, non-ferrous metals, steel, iron, newspapers, mixed paper, cardboard, glass, plastic containers, and tin cans (West Seattle Recycling Center 2012). Large quantities of non-hazardous wastes are stored outdoors (Ecology 2010b).

Although this property is located within the boundaries of the SW Dakota Street SD basin, stormwater from this facility is conveyed to the combined sewer (Ecology 2010b).

5.3.2 Historical Operations

Information regarding historical operations at this property was not available for review.

5.3.3 Regulatory History

Ecology performed a source control inspection of the West Seattle Recycling Center on April 13, 2010 (Ecology 2010b). The property was in need of sweeping and better general housekeeping. Small quantities of waste touch-up paint and cleaning products were stored indoors. Ecology identified the following corrective actions to West Seattle Recycling Center (Ecology 2010c):

- Properly dispose of waste touch-up paint and cleaning products.
- Complete a written spill plan and post at appropriate locations at the facility.
- Obtain spill containment and cleanup materials.
- Educate employees about the spill plan and spill kit.
- Implement proper housekeeping, including activities such as increasing the frequency of sweeping, sweeping under loading area, and cleaning up leaks and spills as they occur.

West Seattle Recycling Center completed a compliance certificate in June 2010 (West Seattle Recycling Center 2010). Ecology determined that the facility was in compliance (Ecology 2010d).

5.3.4 Potential for Sediment Recontamination

The potential for sediment recontamination via this property is summarized below by transport pathway.

Stormwater

Stormwater from the West Seattle Recycling Center is conveyed to the combined sewer. Stormwater from this facility is discharged to the LDW only during a CSO event. West Seattle Recycling Center completed the corrective actions assigned by Ecology in 2010 (Ecology 2010d). Potential for sediment recontamination due to current facility operations is very low since stormwater is conveyed to the combined sewer.

Soil and Groundwater

There is no information available that indicates that soil or groundwater contamination is present at this property.

5.3.5 Data Gaps

West Seattle Recycling Center appears to maintain appropriate source control BMPs and has complied with corrective actions identified by Ecology, and stormwater from the facility is conveyed to the combined sewer. Therefore, no data gaps were identified for this property.

5.4 Active Environmental Inc.

Facility Summary: Active Environmental Inc.	
Tax Parcel No.	7547300520, 7547300645, 7547301700
Address	0520: 4002 17th Avenue SW 98106 0645: 4001 16th Avenue SW 98106 1700: 3864 17th Avenue SW 98106
Property Owner	Richard Fraser
Parcel Size	0520: 0.11 acre (5,000 sq ft) 0645: 0.06 acre (2,500 sq ft) 1700: 0.20 acre (8,520 sq ft)
Facility/Site ID	20843
SIC Code(s)	1795 7999
EPA ID No.	WAR000007088 - inactive
NPDES Permit No.	None
UST/LUST ID No.	None

Active Environmental operates on three parcels situated between 16th and 17th Avenue SW on the eastern and western sides of the property. West Seattle Recycling Center is immediately north of Active Environmental. A vacant commercial property and a residential property are located to the south.

No permanent buildings have been constructed on the Active Environmental property.

5.4.1 Current Operations

Active Environmental has operated at this location since 2006. The company prepares construction equipment such as backhoes for deployment to construction sites, performs clean soil staging, and stores cleaned tanks at the property. Active Environmental uses 4001 16th Avenue SW as its operating address (SPU 2010n).

Landscape materials and used equipment are stored in an unpaved area. Large trucks (greater than 10 tons) and construction-related vehicles are regularly parked on paved areas of the facility (SPU 2010n).

Active Environmental washes backhoes and other custom equipment at the property on a weekly basis. The outdoor paved areas are not regularly swept, but they are washed. The water from these washings drains into a sandbox that drains to the sanitary sewer. The sandbox has overflowed during heavy rain (SPU 2010n, ax).

There is one storm drain catch basin located on this property, which is fitted with an outlet trap. A boom is around the catch basin (SPU 2010ax).

5.4.2 Historical Operations

Information regarding historical operations at the property was not available for review.

5.4.3 Regulatory History

SPU performed an inspection at the facility in March 2010 (SPU 2010n). Housekeeping practices at the facility were generally good; however, SPU identified the following corrective actions (SPU 2010v):

- Complete a written spill plan and post at appropriate locations at the facility.
- Educate employees about the spill plan and use of spill response materials.
- Install an outlet trap in the storm drain catch basin.

A follow-up inspection was performed in May 2010. SPU determined that the corrective actions had been implemented and listed Active Environmental as in compliance. In addition, the SPU inspector directed Active Environmental to contact SPU if the sandbox overflows again (SPU 2010ax, ba).

5.4.4 Potential for Sediment Recontamination

The potential for sediment recontamination via this property is summarized below by transport pathway.

Stormwater

Active Environmental completed the corrective actions assigned by SPU in 2010 (SPU 2010ba). Potential for sediment recontamination due to current facility operations is low provided that the improvements and source control BMPs are maintained.

Soil and Groundwater

There is no information available that indicates that soil or groundwater contamination is present at this property.

5.4.5 Data Gaps

Active Environmental appears to maintain appropriate source control BMPs and has complied with corrective actions identified by SPU. Therefore, no data gaps were identified for this property.

5.5 Former Concrete Restoration

Facility Summary: Former Concrete Restoration	
Tax Parcel No.	7666703835, 7666703845, 7666703855, 7666703865, 7666703870
Address	3835: 16th Avenue SW 98106 3845: 4015 West Marginal Way SW 98106 3855: None 3865: 4025 West Marginal Way SW 98106 3870: 4035 West Marginal Way SW 98106
Property Owner	Too Marginal LLC
Parcel Size	3835: 0.06 acre (2,589 sq ft) 3845: 0.07 acre (3,250 sq ft) 3855: 0.12acre (5,120 sq ft) 3865: 0.10 acre (4,348 sq ft) 3870: 0.02 acre (800 sq ft)
Facility/Site ID	9688: Concrete Restoration Inc. 31119678: Brys Auto Wrecking
SIC Code(s)	1771 (Concrete Restoration) 9999: Nonclassifiable Establishments
EPA ID No.	WA0000141465 – inactive (Brys Auto Wrecking)
NPDES Permit No.	None
UST/LUST ID No.	None

The parcels that comprise the former Concrete Restoration property occupy an entire block. The property is bordered by West Marginal Way SW to the east, SW Dakota Street to the south, 16th Avenue SW to the west, and SW Andover Street to the north. The Terminal 105 Habitat Restoration area is east of the property, across West Marginal Way SW.

One building is present on parcel 3865, a 3,100 sq ft warehouse, built in 1942. There are no buildings on the remaining parcels.

5.5.1 Current Operations

Gary Westside Towing currently operates an impound lot at parcel 3835. **Global Diving & Salvage** currently uses the remaining parcels to store materials and equipment. The entire property was gravel covered until summer 2010, when the southern half of the lot was paved by Global Diving & Salvage (Wisdom 2010e).

A trench drain is present on parcel 3865, adjacent to the warehouse, and wash water is conveyed to this drain. SPU performed a dye test in 2010 and confirmed that the drain is connected to the sanitary sewer (SPU 2010r).

There are no known connections to the storm drain system from the property. Stormwater infiltrates the ground surface; however, during heavy rainfall, stormwater runoff may be conveyed to the storm drain catch basins in the rights-of-way (Wisdom 2010a; Ecology 2010a). A berm in the street appears to prevent stormwater runoff from the property from entering the right-of-way catch basin (Wisdom 2010c).

5.5.2 Historical Operations

A-1 Auto Parts and Wrecking and **Brys Auto Wrecking** historically operated at this property (GeoEngineers 1990). Information regarding these companies' operations at location was not available for review.

Concrete Restoration operated at this property from 2003 (SPU 2010h) until summer 2010 (SPU 2010br). The company restored and patched concrete. Materials used in operations included methyl epoxy, acrylic resins and powder catalysts, acetone, paint strippers, and curing agents (SPU 2010h).

5.5.3 Regulatory History

Brys Auto Wrecking

The property was listed on the CSCSL in 1998, receiving a WARM ranking of 3. According to the ISIS database, metals and petroleum contamination is present in soil and is suspected to be present in groundwater and air. The property was in the Voluntary Cleanup Program (VCP) from June 2002 to June 2006; the VCP ID was NW0914.

Concrete Restoration

SPU performed an initial inspection at Concrete Restoration on March 18, 2010. Concrete Restoration was beginning to move its business to a new location in South Park. Stockpiled materials, used equipment, and equipment/materials awaiting disposal were stored outdoors without proper labels, cover, or containment. Leakage, with visible oil sheen, was observed from the waste containers in the storage areas. The condition of the housekeeping in the storage areas was deemed "unacceptable" by SPU (SPU 2010h).

SPU performed a dye test and follow-up inspection at Concrete Restoration on March 26, 2010. During the dye test of the trench drain, it was determined that the drain was plumbed to the sanitary sewer. In addition, the SPU inspector discovered that the sanitary sewer line was 50 to 75 percent full of concrete and barely flowing. A strong pesticide odor was noticed outside of the fence of 16th Avenue SW and SW Dakota Street. The vegetation in this area was dead and the area was discolored (SPU 2010r).

SPU performed a second follow-up inspection on April 8, 2010. Liquid wastes were consolidated into 5-gallon buckets but were not covered. Wash water from cleaning buckets and equipment was discharged to the trench train. The SPU inspector observed diesel fuel leaking from a 30-gallon drum and pooling on the ground and track out from the facility. The spill was cleaned up during the inspection (SPU 2010ac).

SPU referred the company to KCIW for review of the discharge authorization of process water to the sanitary sewer and identified the following corrective actions for Concrete Restoration (SPU 2010an):

- Cover and contain all materials that have the potential to leach or spill to stormwater or move these materials indoors.
- Properly label, cover, and contain all buckets and drums.
- Complete a written spill plan and post at appropriate locations at the facility.
- Obtain spill containment and cleanup materials.
- Educate employees about the spill plan and spill kit.
- Improve housekeeping by frequently sweeping surfaces to prevent track out, placing drip pans where spills or leaks may occur, ceasing washing down areas that drain to the storm drain system, and removing waste materials and equipment.
- Properly manage hazardous wastes.

On April 28, 2010, SPU and King County collected soil samples from the right-of-way area outside the fence at 16th Avenue SW and SW Dakota Street. The soil was discolored; petroleum and pesticide odors were present in the soil (SPU 2010aq). Pesticides were detected (Wisdom 2010d).

In April 2010, SPU notified Ecology of the potential for soil contamination at the property due to the improper chemical storage by Concrete Restoration. SPU reported the diesel spill observed on April 8, the dead vegetation and discolored area in the right-of-way adjacent to the property, and many stains on the gravel lot (Ecology 2010a).

SPU returned to the site on August 2, 2010. Concrete Restoration had moved out of the facility. The gravel lot had been paved by Global Diving & Salvage (SPU 2010br; Wisdom 2010e).

5.5.4 Environmental Investigations and Cleanups

Records for Brys Auto Wrecking in the ISIS database indicate that at least one environmental investigation has been performed at this property. The investigation confirmed metals and

petroleum contamination in soil. Environmental investigation reports were not available for review.

5.5.5 Potential for Sediment Recontamination

The potential for sediment recontamination via this property is summarized below by transport pathway.

Stormwater

Stormwater from this facility infiltrates the ground surface but may be conveyed to the storm drain system during periods of heavy rainfall. However, a berm in the street appears to prevent stormwater from reaching the storm drain system (Wisdom 2010c). Stormwater is likely to be conveyed to the LDW only during a CSO event. The potential for sediment recontamination via this pathway is very low.

The current operations performed by Global Diving & Salvage and Gary's Westside Towing have not been evaluated by SPU or Ecology for compliance with source control BMPs. However, Global Diving & Salvage has previously complied with corrective actions identified by SPU for its other locations near the LDW (SPU 2006g).

Groundwater Discharge

Previous environmental investigations have confirmed that soil beneath the property is contaminated by metals and petroleum. SPU reported a diesel spill and numerous stains on the property during the time that Concrete Restoration was operating at the property (Ecology 2010a). This spill and staining indicates the potential for additional soil and/or groundwater contamination. Potential contaminants include petroleum, VOCs, and phthalates (SPU 2010h; Wisdom 2010a). In addition, SPU and King County confirmed the presence of pesticides in soil adjacent to the property (Wisdom 2010d).

Groundwater contamination is suspected at this property. Groundwater likely flows towards the stream channel at the Terminal 105 Park, which is immediately east of the property. Concentrations of zinc, BEHP, butyl benzyl phthalate, and PCBs have exceeded the SQS in sediment samples collected from the stream channel (Figure 7b). The potential for sediment recontamination via this pathway is unknown.

5.5.6 Data Gaps

Information needed to assess the potential for sediment recontamination associated with current or historical operations at this property is listed below:

- A business inspection is needed at Gary's Westside Towing and Global Diving & Salvage to verify compliance with applicable regulations, and BMPs to prevent the release of contaminants to the LDW.

- Additional information regarding the previous environmental investigation(s) at the property is needed to determine if LDW sediment COCs are present in soil and groundwater at concentrations indicating a potential for sediment recontamination.

5.6 Heathco International Inc./Penthouse Drapery

Facility Summary: Heathco International Inc./Penthouse Drapery	
Tax Parcel No.	7547300595
Address	4025 16th Avenue SW 98106
Property Owner	Colin Tsuchikawa
Parcel Size	0.39 acre (16,852 sq ft)
Facility/Site ID	12698: Heathco 24724: Penthouse Drapery
SIC Code(s)	2591 (Penthouse Drapery) 5078 (HeathCo)
EPA ID No.	None
NPDES Permit No.	None
UST/LUST ID No.	None

Heathco and Penthouse Drapery operate on parcel 0595. The property is located at the northwest corner of the intersection of 16th Avenue SW and SW Dakota Street. The property is bordered by 16th Avenue SW to the east, Raynproof Roofing to the south, vacant commercial and residential properties to the west, and a residential property to north. One building is present on the property, a 10,984 sq ft warehouse, built in 2000. The warehouse is divided into two suites.

5.6.1 Current Operations

Heathco operates in Suite B. Heathco is a water treatment filter distributer and safe repair business. The following activities are performed outdoors: truck loading/unloading of materials, convenience store safe repair, and painting and finishing of safes. Used water treatment filters are disposed of in the facility dumpster (SPU 2010af).

Penthouse Drapery operates in Suite A and has been at this location since 2005. The property owner also owns Penthouse Drapery. Penthouse Drapery is a custom order drapery business. Fabric is cut and sewn, but not washed, at the facility. Outdoor activities include truck loading/unloading and parking (SPU 2010bp).

The property is swept as needed to remove debris, and outdoor, paved areas are washed annually. One storm drain catch basin is present on the property (SPU 2010af).

5.6.2 Historical Operations

Information regarding historical operations at this property was not available for review.

5.6.3 Regulatory History

Heathco

SPU performed an inspection at Heathco on April 13, 2010. The SPU inspector rated housekeeping at the facility as good (SPU 2010af). The following corrective actions were identified by SPU (SPU 2010am):

- Complete a written spill plan and post at appropriate locations at the facility.
- Educate employees about the spill plan and use of spill response materials.
- Install an outlet trap in the storm drain catch basin.

SPU performed follow-up inspections at Heathco on June 17 and August 2, 2010 (SPU 2010bl, bv). In September 2010, SPU determined that Heathco had implemented the corrective actions and was in compliance (SPU 2010bw).

Penthouse Drapery

SPU performed an inspection at Penthouse Drapery on August 2, 2010. The storm drain catch basin needed to be cleaned (SPU 2010bp). The following corrective actions were identified by SPU (SPU 2010bs):

- Perform routine maintenance of the stormwater drainage system by clearing out accumulated material.
- Complete a written spill plan and post at appropriate locations at the facility.
- Educate employees about the spill plan and use of spill response materials.
- Recycle fluorescent tubes or dispose of them at a hazardous waste site.
- To obtain an industrial stormwater general permit to discharge surface water.

SPU performed a follow-up inspection on September 15, 2010. Penthouse Drapery had developed a spill plan and obtained a spill kit for its facility and Heathco; however, the storm drain catch basin had not been cleaned (Wisdom 2010f). SPU performed another follow-up inspection on October 28, 2010, and determined that Penthouse Drapery had achieved compliance with the corrective actions (SPU 2010bx, by).

5.6.4 Potential for Sediment Recontamination

The potential for sediment recontamination via this property is summarized below by transport pathway.

Stormwater

Heathco and Penthouse Drapery completed the corrective actions assigned by SPU in 2010 (SPU 2010bw, bx). Potential for sediment recontamination due to current facility operations is low provided that the improvements and source control BMPs are maintained.

Soil and Groundwater

There is no information available that indicates that soil or groundwater contamination is present at this property.

5.6.5 Data Gaps

Heathco and Penthouse Drapery appear to maintain appropriate source control BMPs and have complied with corrective actions identified by SPU. Therefore, no data gaps were identified for this property.

5.7 Raynproof Roofing

Facility Summary: Raynproof Roofing	
Tax Parcel No.	7547800510, 7547800520, 7547800525
Address	0510: 4032 17th Avenue SW 98106 0520: 4121 16th Avenue SW 98106 0525: 4117 16th Avenue SW 98106
Property Owner	Dan J & Tammy Rheaume
Parcel Size	0510: 0.12 acre (5,376 sq ft) 0520: 0.06 acre (2,600 sq ft) 0525: 0.36 acre (15,600 sq ft)
Facility/Site ID	23451
SIC Code(s)	1761
EPA ID No.	None
NPDES Permit No.	None
UST/LUST ID No.	None

Raynproof Roofing operates on parcels 0510, 0520, and 0525. The property is bordered by 16th Avenue SW to the east, by forested land owned by the Seattle Parks Department to the south and west, and by Heathco/Penthouse Drapery to the north. There are two buildings located on this facility. Both are 510 sq ft office buildings built in 1918.

5.7.1 Current Operations

Raynproof Roofing has operated a roofing business at this facility since 2000. The outdoor area is an unpaved gravel parking lot. Raynproof Roofing loads and unloads solid materials, parks a truck with electric lifts, and washes vehicles outdoors. Materials stored outdoors are kept either in a shed or covered with tarps. Wash water infiltrates the ground surface (SPU 2010m).

There are no storm drain catch basins on the property. Stormwater runoff is conveyed to a right-of-way catch basin in 16th Avenue SW (SPU 2010m).

5.7.2 Historical Operations

Information regarding historical operations at this property was not available for review.

5.7.3 Regulatory History

SPU performed an inspection at Raynproof Roofing March 24, 2010. No liquid chemicals, hydraulic lifts, or full solid waste dumpsters were kept on site. Housekeeping practices were considered good (SPU 2010m). SPU determined that Raynproof Roofing was in compliance and no corrective actions were identified (SPU 2010o).

5.7.4 Potential for Sediment Recontamination

The potential for sediment recontamination via this property is summarized below by transport pathway.

Stormwater

Based on SPU's 2010 inspection (SPU 2010m,o), the potential for sediment recontamination due to current facility operations is low.

Soil and Groundwater

There is no information available that indicates that soil or groundwater contamination is present at this property.

5.7.5 Data Gaps

No data gaps were identified for this property.

5.8 4101 West Marginal Way Business Park

Facility Summary: 4101 West Marginal Way Business Park	
Tax Parcel No.	7547800565, 7547800575, 7547800585, 7547800615, 7666703805
Address	0565, 0575, 0585: 4101 West Marginal Way SW 98106 0615: 4103 West Marginal Way SW 98106 3805: 4005 West Marginal Way SW 98106
Property Owner	BBLL, LLC
Parcel Size	0565: 0.17 acre (7,571 sq ft) 0575 0.08 acre (3,358 sq ft) 0585: 0.19 acre (8,417 sq ft) 0615: 0.34 acre (15,010 sq ft) 3805: 0.08 acre (3,621 sq ft)
Facility/Site ID	11229: Aquatic Enterprises 14517: West Seattle Radiator Service 39342192: Dakota Street 1916: Wheelchairs Plus Inc.

Facility Summary: 4101 West Marginal Way Business Park	
SIC Code(s)	5093: Scrap and Waste Materials (Dakota Street) 5983: Fuel Oil Dealers (Dakota Street) 5999 (Metal Shorts, Wheelchairs Plus) 7389 (Aquatic Enterprises) 7538 (West Seattle Radiator Service)
EPA ID No.	None
NPDES Permit No.	None
UST/LUST ID No.	None

The 4101 West Marginal Way Business Park occupies five parcels in the SW Dakota Street SD basin. The property is bordered by West Marginal Way SW to the east, the Seattle Parks and Recreation Westbridge Facility to the south, 16th Avenue SW to the west, and SW Dakota Street to the north. Two buildings are present on the property: an 8,660 sq ft warehouse/open office building constructed in 2001 and an 11,646 sq ft warehouse/open office building constructed in 2002.

The business park was historically known as the Dakota Street Business Park.

5.8.1 Current Operations

The following companies lease space at the 4101 West Marginal Way Business Park: Aquatic Enterprises, Inc., Cohesive Garage, Ecoyards, Metal Shorts, West Seattle Radiator Service, and Wheelchairs Plus. Two storm drain catch basins are present on the property. The property owner is responsible for maintenance of the catch basins (SPU 2010d,z).

Aquatic Enterprises is an aquarium manufacturing and service company. The company services fish tanks and brings filters back to the shop. Carbon filter sludge residue wastes are disposed of at the facility. Washing of fish tank filters is performed on a weekly basis. The waste water from these washings drains into the sanitary sewer system. Aquatic Enterprises has operated at this location since 2001 (SPU 2010d).

Metal Shorts is a metal sales company. The company maintains a metal band saw, shears, and table saw. Scrap metal is collected inside the warehouse and delivered to Industrial Metals on a weekly basis. No dangerous waste or fluids are kept at the facility. Metal Shorts operates a truck and a forklift, both of which are kept inside. No floor drains are present in the building. No activities are performed outdoors. Metal Shorts has operated at this location since 2003 (SPU 2010z).

West Seattle Radiator Service is an automotive repair company. The company generates antifreeze, metals, petroleum oils, oil sorbent pads, and tank sludge wastes through its operations. Antifreeze and petroleum oils wastes are disposed of through Phoenix Environmental. Metal wastes are disposed of at NonFerrous Metals. West Seattle Radiator uses a caustic soda cold tank, a leak detection tank, and a rinse tank at the facility. Outdoor activities include vehicle/equipment maintenance and repair, storing of liquids in a stationary AST, and loading/unloading of liquid/solid waste. No floor drains are present in the facility. West Seattle Radiator Service has operated at this location since 2007 (SPU 2010p).

Wheelchairs Plus is a custom wheelchairs distributor. Metal waste is generated through repair operations. Wheelchairs Plus gives the scrap metal to Metal Shorts. Metal Shorts transfers scrap metal to Independent Metals. Wheelchairs Plus has operated at this location since 2003 (SPU 2010ad).

5.8.2 Historical Operations

A gasoline service station operated at this property from the 1930s to the 1950s (SoundEarth 2011b). A dry cleaning plant operated at the property in the late 1920s. **D&K Auto and Truck Salvage** operated at the property in the 1970s (GeoEngineers 1990).

Aable Auto and Truck Wrecking Yard (Aable Auto) historically operated at this property. The yard operated until approximately 1999 (Kuroiwa 2002).

5.8.3 Regulatory History

4101 West Marginal Way Business Park

On March 30, 2010, SPU issued a corrective action letter to the property owner. The corrective action was to install an outlet trap in one of the catch basin locations (SPU 2010u). SPU performed follow-up inspections on April 30 and May 24, 2010 (SPU 2010ar, bd). Following the May 24 inspection, SPU determined that the property owner had completed the corrective action and was in compliance (SPU 2010bh).

Aquatic Enterprises

SPU performed a source control inspection at Aquatic Enterprises in March 2010. The SPU inspector noted that some of the carbon filters were washed outdoors. SPU notified Aquatic Enterprises that the wash water may enter the storm drain system and asked the company to perform all work inside the building. In addition, SPU directed Aquatic Enterprises to contact Ecology in order to determine if the company needed an NPDES permit or CNE for its operations (SPU 2010t).

A follow-up inspection was performed on April 16, 2010. Aquatic Enterprises had moved all operations indoors and completed a CNE application with Ecology. SPU sampled the catch basin outside of the Aquatic Enterprises facility (SPU 2010ai). SPU determined that the company was in compliance (SPU 2010aj).

Metal Shorts

SPU performed a source control inspection at Metal Shorts on April 5, 2010. SPU determined that the facility was in compliance and no corrective actions were identified (SPU 2010z, ab).

West Seattle Radiator Service

SPU performed a source control inspection of West Seattle Radiator Service on March 25, 2010. West Seattle Radiators Service produced 50 gallons of wastewater per day resulting from cleaning and rinsing of parts, and approximately 250 gallons of wastewater per month from

radiator leak tests. A large sink in the facility contained oily sludge. Wastewater was discharged to the sanitary sewer (SPU 2010p).

SPU performed a follow-up inspection of West Seattle Radiator Service April 5, 2010, after noticing a leaking car in front of the building. The SPU inspector reminded the owner of his obligation to contain leaks from cars and prevent leaking fluids from reaching the storm drain system (SPU 2010aa).

SPU identified the following corrective actions as a result of these inspections (SPU 2010w):

- Complete a written spill plan and post at appropriate locations at the facility.
- Obtain spill response materials.
- Educate employees about the spill plan and use of spill response materials.
- Properly perform vehicle maintenance, including proper handling of automotive fluids, spill prevention and cleanup, draining fluids from vehicles upon arrival, performing maintenance and repair work indoors, and containing and properly disposing of wash water.
- Comply with conditional exclusions for small quantity dangerous waste generators or manage waste in full compliance with the Dangerous Waste Regulations (WAC 173-303).

In addition, SPU directed West Seattle Radiator Service to stop washing down outdoor maintenance and repair areas, and to cease discharging industrial wastes to the sanitary sewer until permission to discharge these wastes had been obtained from KCIW (SPU 2010w).

SPU performed a second re-inspection of West Seattle Radiator Service on May 11, 2010. The inspector noted that the owner of West Seattle Radiator Service made great improvements for spill prevention (SPU 2010ay). SPU determined that West Seattle Radiator Service had complied with the corrective actions and was in compliance (SPU 2010bb).

Wheelchair Plus

SPU performed a source control inspection at Wheelchairs Plus on April 8, 2010. The SPU inspector noted that no fluids were kept at the facility and determined that there was a very low chance for spills associated with this business. SPU determined that the facility was in compliance and no corrective actions were identified (SPU 2010ad).

5.8.4 Environmental Investigations and Cleanups

Two environmental investigations have been conducted at the property. Sample locations are shown on Figure 29 and a summary of chemicals that exceeded soil screening levels is provided in Table 21. A summary of all chemicals detected in soil at the property is included in Table F-13.

Phase I and Phase II Environmental Assessments (1999)

In 1999 Zipper Zeman Associates, Inc. performed Phase I and Phase II environmental assessments in the area of the former Aable Auto and Truck Wrecking Yard to determine if yard operations had impacted the environment. No environmental impacts were identified during these assessments (Kuroiwa 2002).

Independent Remedial Action Dakota Street Partners (2001)

In 2001, during construction of concrete footings for the southern building on the property, petroleum-contaminated soils were encountered. Thirteen test pits were excavated to characterize the extent of the soil contamination (Figure 29). Results of this investigation determined that an area of soil 25 feet wide by 75 feet long by 12 feet deep was contaminated with gasoline, at concentrations above MTCA Method A cleanup levels. The likely source of contamination was determined to be poor housekeeping and improper disposal practices at the former Aable Auto. A total of 800 cubic yards of contaminated soil were excavated and removed from the property. A total of 15 sidewall and 14 bottom confirmation soil samples were taken from the excavation area. Gasoline-range hydrocarbons and lead concentrations in soil were below MTCA Method A cleanup levels. The excavation area was backfilled with imported, clean soils (Kuroiwa 2002). Concentrations of BTEX exceeding the MTCA Method A and B cleanup levels remain in soil (Table 21).

Three groundwater monitoring wells were installed. Analysis of the groundwater samples indicated the groundwater did not contain detectable levels of gasoline-range hydrocarbons, BTEX, MTBE, or lead (Kuroiwa 2002).

Following the completion of the independent remedial action, Dakota Street Partners (former property owner) received an NFA Determination from Ecology on July 23, 2003 (Ecology 2003b).

5.8.5 Potential for Sediment Recontamination

The potential for sediment recontamination via this property is summarized below by transport pathway.

Stormwater

The property owner of 4101 West Marginal Way Business Park and the tenants at the facility completed the corrective actions assigned by SPU in 2010 (SPU 2010ab, ad, aj, bb, bh). Potential for sediment recontamination due to current facility operations is low provided that the improvements and source control BMPs are maintained.

Groundwater Discharge

Petroleum-contaminated soil was excavated and removed from the property in 2001. Groundwater was tested for gasoline-range hydrocarbons, BTEX, MTBE, and lead; none of these analytes were detected in the groundwater. The potential for sediment recontamination via this pathway is low.

5.8.6 Data Gaps

The property owner of 4101 West Marginal Way Business Park and the tenants at the facility appear to maintain appropriate source control BMPs and have complied with corrective actions identified by SPU. Therefore, no data gaps were identified for this property.

5.9 Strutz Property

Facility Summary: Strutz Property	
Tax Parcel No.	1324039025
Address	4201 16th Avenue SW
Property Owner	Dan J & Tammy Rheaume
Parcel Size	0.39 acre (17,000 sq ft)
Facility/Site ID	2438
SIC Code(s)	753: Automotive Repair Shops 88: Private Households
EPA ID No.	None
NPDES Permit No.	None
UST/LUST ID No.	None

Parcel 9025 is located at the southern end of 16th Avenue SW, to the west of the Seattle Parks and Recreation Westbridge facility. Parcel 9025 is surrounded by a parcel owned by the City of Seattle Parks Department. The city-owned land is forested. A 1,710 sq ft single-family home, built in 1900, is present on parcel 9025.

5.9.1 Current Operations

The property is a privately owned residence. The home has been present since 1900.

Based on the GIS shapefiles provided by SPU, there are no connections to the storm drain system from this property.

5.9.2 Historical Operations

Automobile repairs were historically performed on the property. Poor waste handling practices led to suspected soil and groundwater contamination. Car parts, oil pans, and batteries were abandoned at various locations around the property. Oil containers were disposed of in a burn pit (Ecology 1993b).

5.9.3 Regulatory History

In April 1992, Ecology received a complaint from King County police regarding oil- and gasoline-soaked soil on the property. Ecology confirmed the police report in January 1993 (SKCDPH 2001). In February 1993, Ecology sent a letter to James Strutz, notifying him that his property had been listed on the CSCSL due to petroleum contamination on the property (Ecology

1993a). In March 1993, Ecology inspected the property and provided information to Mr. Strutz regarding the requirements for cleaning up the property (Ecology 1993b,c).

In February 2001, SKCDPH initiated a site hazard assessment (SHA) at the Strutz Property. The new property owner indicated that the City of Seattle had excavated a large amount of soil from its property, south of the shared southern property line with the Strutz Property. The assessor indicated that the excavated area appeared to correspond to the petroleum-contaminated area described in the 1993 Ecology inspection report (SKCDPH 2001; Ecology 1993b). SKCDPH collected four soil samples from the property (Section 5.10.4); no analytes were detected above cleanup levels. SKCDPH recommended no further actions under MTCA (SKCDPH 2001). According to the ISIS database, Ecology granted the NFA in August 2001.

5.9.4 Environmental Investigations and Cleanups

Site Hazard Assessment (2001)

In April 2001, SKCDPH collected four soil samples between 6 and 8 inches bgs at the Strutz Property, as part of the SHA activities. All soil samples were analyzed for diesel- and heavy oil-range hydrocarbons and metals. The soil sample collected from the former burn pit was analyzed for PAHs. Two samples were also analyzed for gasoline-range hydrocarbons and BTEX. Gasoline- and diesel-range hydrocarbons, PAHs, and BTEX were not detected in any of the samples. Heavy oil-range hydrocarbons were detected in two samples, at concentrations below the MTCA Method A cleanup level (Table F-14) (SKCDPH 2001).

5.9.5 Potential for Sediment Recontamination

The potential for sediment recontamination via this property is summarized below by transport pathway.

Stormwater

Based on the GIS shapefiles provided by SPU, there are no connections to the storm drain system from this property. Stormwater likely infiltrates the ground surface. The potential for sediment recontamination via this pathway is incomplete.

Groundwater Discharge

During the 2001 SHA, SKCDPH determined that contaminated soil was removed from the property. Petroleum contamination may be present in groundwater; however, petroleum hydrocarbons are not an LDW sediment COC. The groundwater discharge pathway is incomplete.

5.9.6 Data Gaps

The potential pathways for sediment recontamination related to historical petroleum contamination at this property are incomplete. Therefore, no data gaps were identified for this property.

5.10 Seattle Parks and Recreation Westbridge Maintenance Facility

Facility Summary: Seattle Parks and Recreation Westbridge Maintenance Facility	
Tax Parcel No.	1824049020
Address	4201 W Marginal Way SW 98106
Property Owner	Seattle City of Parks Dept
Parcel Size	5.04 acres (219,450 sq ft)
Facility/Site ID	2999235: Westbridge Building 59252684: Seattle City Parks Westbridge Facility
SIC Code(s)	9999: Nonclassifiable Establishments
EPA ID No.	WAD045749470 - inactive
NPDES Permit No.	None
UST/LUST ID No.	2384 LUST – inactive 334 UST - active

The Seattle Parks and Recreation (Seattle Parks) Westbridge Maintenance Facility is located on parcel 9020. The property is bordered by West Marginal Way SW to the east, New Finishes/Pacific to the south, a forested area to the west, and the 4101 West Marginal Way Business Park to the north. There is one building located on the property, a 113,780 sq ft warehouse built in 1955.

5.10.1 Current Operations

Seattle Parks has operated at the property since 2002. Seattle Parks uses the facility for maintenance and storage of equipment and materials used for improvements to Parks-owned properties. Wastes abandoned on Seattle Parks properties are accumulated at the Westbridge Facility prior to disposal. The Westbridge Maintenance Facility uses 4209 W Marginal Way SW as its operating address (Ecology 2009e).

Several shops operate in the Westbridge Maintenance Facility. These include a carpentry/ masonry shop, a paint shop, a plumbing shop, an electrical shop, an engine repair shop and metal/machine shop (Herrera 2006; Ecology 2009e).

A hazardous materials storage area is present on the southern side of the building. Paint, solvents, and illegally dumped containers found in Seattle Parks facilities are stored in the area. An uncovered equipment washing area is present on the western side of the building. A berm is present around the wash area (Herrera 2006). A drain plumbed to the sanitary sewer is present inside the wash area (SPU 2004).

Ten catch basins are present on the property. An oil/water separator is present northeast of the building (SPU 2010av). A dye test performed in 2004 confirmed that stormwater from the western side of the property is conveyed to the oil/water separator and then discharges to the LDW through the public storm drain system (SPU 2004).

5.10.2 Historical Operations

Puget Sound Brick & Tile and **Lohse Brick Company** operated at this property in 1924. **Olympic Brick Works** operated at the property in 1928. By 1946, the brick factory had been replaced by the **Glencoe Foundry** (GeoEngineers 1990).

A foundry (presumably Glencoe) operated at this property in the 1940s and 1950s (GeoEngineers 2001). In approximately 1954, **Blake Moffit & Towne** (BMT) constructed the warehouse/office building that is present on the property today. At the same time an 800-gallon heating oil UST was installed on the property (Figure 30a). BMT occupied the building from 1954 to 1961. In 1961, **Kimberly-Clark Corporation** purchased the property and later sold the property to **Saxon Realty Corporation** in 1968. In 1970, **Seattle-First Bank** (Seafirst Bank, later **Bank of America**) purchased the property. In 1971, Seafirst Bank had the 800-gallon heating oil UST abandoned-in-place (GeoEngineers 2002a).

Seafirst Bank used the warehouse to store supplies and equipment for its operations and maintenance from 1970 to approximately 2000. Two 6,000-gallon gasoline USTs were located under a concrete pad in a parking lot south of the building (Figures 30a). These USTs were used for refueling forklift trucks, which operated in the warehouse (Law 1991). Pad-mounted transformers were present on the property to the north of the Front Office (GeoEngineers 2001).

5.10.3 Regulatory History

Inspections

In August 2009, Ecology performed a HWTR compliance inspection at the Westbridge Facility. Twelve compliance issues were identified, most of these related to proper designation, labeling, storage, and accumulation of wastes. Adequate secondary containment was not provided for some containers of liquid wastes, and spill response materials were not present in the dangerous waste accumulation area. The dangerous waste accumulation area did not have cover or proper containment; contaminants could be entrained in stormwater and conveyed to a nearby storm drain. The following corrective actions were identified (Ecology 2009e):

- Keep containers of dangerous wastes and oil closed except when adding or removing wastes or oil.
- Properly designate wastes, label containers, and provide accumulation start dates.
- Provide adequate secondary containment for liquid wastes.
- Provide adequate spill response/control materials.
- Create and maintain a log for the wastes that are treated at the facility.
- Properly manage and label Universal Wastes and cathode ray tubes.
- Submit documentation for the proper disposal of crushed light bulbs.

Seattle Parks submitted documentation to Ecology verifying that all corrective actions had been implemented, and in December 2009 Ecology determined that the facility was in compliance (Ecology 2009f).

SPU performed an inspection at the property on May 6, 2010. SPU inspectors noted that housekeeping and washing practices at the facility needed improvement and waste containers were improperly stored and labeled (SPU 2010av). SPU identified the following corrective actions (SPU 2010az):

- Prevent wash water from the wash area and from pressure washing from discharging into the storm drain.
- Increase sweeping to remove accumulated debris.
- Place drip pans in areas where leaks or spills may occur.
- Remove excess waste and old equipment.
- Inspect storage areas for leaks and spills.
- Install an outlet trap on the discharge pipe of the oil/water separator.
- Provide secondary containment for fuels and hazardous materials.
- Properly store and label wastes.

SPU performed follow-up inspections in June and August 2010 (SPU 2010bk, bu). Following the August 2010 inspection, SPU determined that the corrective actions had been implemented and the facility was in compliance (SPU 2010bt).

Environmental Investigations and Cleanups

In October 1996, Ecology determined that one additional round of groundwater monitoring was required. In addition, an Ecology-approved restrictive covenant was required to issue an NFA letter regarding petroleum contamination from the two former 6,000-gallon gasoline USTs on the property. The restrictive covenant would limit property use to industrial or commercial uses (Ecology 1996e).

In August 2000, GeoEngineers, on behalf of Bank of America, notified Ecology that soil and groundwater beneath the property was contaminated due to a release of heating oil from an 800-gallon UST. Bank of America did not use heating oil while it occupied the building and indicated that the tank had been taken out of service in 1971 (GeoEngineers 2000b).

In June 2007, Ecology determined that further remedial action was necessary to address petroleum contamination at the property (Ecology 2007e). In October 2008, Ecology removed the property from the VCP because Bank of America and its consultants were unresponsive to Ecology's requests for information and no additional remedial actions were taking place (Ecology 2008d).

5.10.4 Environmental Investigations and Cleanups

Several environmental investigations and cleanups have been performed at this property. Sample locations are shown on Figures 30b through 30d and a summary of chemicals that exceeded soil and groundwater screening levels are provided in Tables 22 and 23. Summaries of all chemicals detected in soil and groundwater at the facility are included in Tables F-15 and F-16.

Underground Storage Tank Removal (1991)

Two 6,000-gallon gasoline USTs were removed near the south side of the building (Figure 30b). The UST excavations were performed in July and September 1991. Contaminated soil was observed during the UST excavation. Three soil samples were collected and analyzed for gasoline-range hydrocarbons, which were detected above the MTCA Method A cleanup level in two samples (Northwest Envirocon 1991). Approximately 160 cubic yards of soil were stockpiled on the property. A grab water sample was collected from the excavation and analyzed for total lead and benzene, which were not detected. The source of the water was determined to be an uncapped sanitary sewer pipe that was present in the excavation (Law 1991). The stockpiled soil was eventually used to backfill the excavation (GeoEngineers 1999).

Six soil borings were advanced around the UST excavation in September 1991. Three of the soil borings were converted to groundwater monitoring wells (MW-1 through MW-3). Nine soil samples were collected and analyzed for gasoline-range hydrocarbons and BTEX. Five samples were analyzed for total lead. Concentrations of gasoline-range hydrocarbons and benzene exceeded the MTCA Method A cleanup levels in samples collected from MW-3 (Table 22), which was installed to the east of the UST excavation (Law 1991).

Groundwater samples were collected from wells MW-2 and MW-3 and analyzed for gasoline-range hydrocarbons and BTEX. All analytes were detected above MTCA Method A cleanup levels in the sample collected from well MW-3. Benzene, toluene, and xylene concentrations exceeded the MTCA Method A cleanup levels in the sample collected from well MW-2 (Table 23) (Law 1991).

Independent Remedial Action and Groundwater Monitoring (1993–1995)

In May 1993, a remedial excavation was performed at the 1991 UST excavation to remove residual contaminated soil (Figure 30b). Approximately 75 cubic yards of soil were removed from the property. Soils samples were collected from the northeast sidewall and the base of the remedial excavation area and analyzed for TPH and BTEX. Gasoline- and diesel-range hydrocarbon and BTEX concentrations exceeded the MTCA Method A cleanup levels in four samples. Further excavation could not be performed without comprising the structural integrity of the building on the property. Wells MW-2 and MW-3 were located within the excavation area and were removed. The excavation cavity was filled with clean soil (AGRA 1996).

In May and November 1993, six soil borings were advanced. Five of the borings were completed as monitoring wells MW-4 through MW-8 (Figure 30b). Soil samples from well borings MW-4 through MW-6 were collected and analyzed for TPH and BTEX. Diesel-range hydrocarbons were detected in one sample at a concentration below the MTCA Method A cleanup level (Table 22). No other analytes were detected. Soil samples collected from borings MW-7, MW-8, and B-9 were not submitted for laboratory analysis. Soil borings B-4 through B-6 did not exhibit detectable concentrations of BTEX or gasoline range TPH (AGRA 1996).

Six groundwater monitoring events were performed between May 1993 and February 1995. Groundwater samples were analyzed for gasoline-range hydrocarbons and BTEX. Concentrations of all analytes exceeded the MTCA Method A cleanup levels in well MW-5

during the May 1993 sampling event. Gasoline-range hydrocarbon concentrations exceeded the MTCA Method A cleanup levels in wells MW-4 through MW-6 in the May 1994 sampling event and in well MW-6 in the August 1994 sampling event (Table 23). No analytes were detected in the February 1995 sampling event (AGRA 1996).

Groundwater Monitoring (1999)

Wells MW-4 and MW-5 were sampled in September 1999. The groundwater samples were analyzed for gasoline-range hydrocarbons and BTEX. No analytes were detected (GeoEngineers 1999).

Subsurface Assessment (1999–2000)

In December 1999, one monitoring well (MW-9) was installed in the former 6,000-gallon gasoline UST area. Two angled borings (AB-1 and AB-2) were advanced adjacent to the warehouse and five vertical borings (AB-3 through AB-7) were advanced through the warehouse floor in order to define the nature and extent of contamination related to the former 6,000-gallon gasoline USTs. Eleven soil samples were collected and analyzed for gasoline-range hydrocarbons and BTEX. All analytes, except benzene, exceeded MTCA Method A cleanup levels in one or more soil samples (GeoEngineers 2000a). A map showing the locations of monitoring well MW-9 and soil borings AB-1 through AB-7 was not available for review.

In January 2000, groundwater was sampled at well MW-9. Gasoline-range hydrocarbons, ethylbenzene, and xylenes were detected at concentrations below the MTCA Method A cleanup levels (GeoEngineers 2000a).

Subsurface Assessment (2000)

During April, May, and June 2000, environmental assessments were performed in two areas of the property: near an 800-gallon heating oil UST at the northern end of the front office area and in the vicinity of the former foundry, within the footprint of the shipping and receiving area (Figure 30c).

In April 2000, a geophysical survey was performed near a vent pipe to determine if a UST was present. The survey confirmed the presence of an 800-gallon heating oil UST. In May, a test pit was excavated. The UST was filled with sand and water. No sheen was observed on the water in the tank or on the soil surrounding the tank. The test pit was backfilled due to soil sloughing and the proximity of the pad-mounted transformers (GeoEngineers 2001).

Twenty-one direct-push borings (GP-1 through GP-21), five inside-building hollow-stem auger borings (IB-1 through IB-5), two outside-building hollow-stem auger borings (OB-1 and OB-2), and six monitoring wells (MW-9[13] through MW-14) were advanced around the UST and the former foundry (Figure 30c). Light non-aqueous phase liquid (LNAPL) "globules" were observed in soil cuttings from 14 borings. Thirty-eight soil samples were collected and analyzed for diesel- and heavy oil-range hydrocarbons. Eight of these samples were analyzed for PAHs, four samples were analyzed for PCBs, and two samples were analyzed for metals (GeoEngineers 2001). Diesel-

[13] Two wells at this property are named MW-9.

and heavy oil-range hydrocarbon concentrations exceeded the MTCA Method A cleanup levels in 30 samples. Arsenic and cadmium concentrations exceeded MTCA Method B cleanup levels in three samples but did not exceed the draft soil-to-sediment screening levels. Total cPAH concentrations exceeded MTCA Method B cleanup levels in eight samples (Table 22).

Grab groundwater samples were collected from GP-1 and GP-2 and analyzed for diesel- and heavy oil-range hydrocarbons. Concentrations of these chemicals exceeded the MTCA Method A cleanup levels in both samples (Table 23) (GeoEngineers 2001).

Remedial Excavation (2001)

A remedial action to remove the contaminated soils from the property was performed in August 2001. The focus of the remedial action was in the immediate vicinity of the 800-gallon heating oil UST, the parking and loading areas to the north of the Front Office, and several underground utilities (GeoEngineers 2002a).

Groundwater was encountered in the excavation at 11 feet bgs; groundwater seeped through brick debris in the soil. The maximum depth of the excavation was 14 feet bgs. Approximately 860 cubic yards of contaminated soil were excavated and removed from the property. Approximately 7,600-gallons of groundwater and free product were removed using a vacuum truck and disposed of off-property. Twenty-one confirmation samples (EX-1 through EX-21) were taken from the north wall, northwest wall, and excavation base (Area A, Figure 30d). Concentrations of cPAHs exceeded the MTCA Method B residential cleanup level (cleanup level selected for the remedial excavation). Diesel- and heavy oil-range concentrations were below MTCA Method A cleanup levels in all 21 confirmation samples (GeoEngineers 2002a).

A liner was placed in the excavation to prevent contaminants in soil underneath the building from migrating to the excavation backfill. The excavation was backfilled with imported soil and stockpiled soil. The 800-gallon UST was left in place due to the pad-mounted electrical transformer. Wells MW-11, MW-12 and MW-13 were decommissioned during the remedial excavation (GeoEngineers 2002a, 2005).

Groundwater Monitoring (2003–2004)

Groundwater monitoring was performed quarterly for wells MW-9, MW-10, and MW-14 from April 2003 to November 2004. These wells are located downgradient and cross-gradient from the 2001 remedial excavation. Groundwater samples were analyzed for diesel- and heavy oil-range hydrocarbons and PAHs. Petroleum hydrocarbon and PAH concentrations generally decreased during the monitoring period and were not detected in wells MW-10 and MW-14 during the November 2004 sampling event. The concentration of diesel-range hydrocarbons in well MW-9 exceeded the MTCA Method A cleanup level in November 2004 (GeoEngineers 2005). Concentrations of benzo(a)pyrene and dibenzo(a,h)anthracene in well MW-10 exceeded current MTCA Method B cleanup levels and the draft groundwater-to-sediment screening levels during the November 2004 sampling event (Table 23).

Phase I Source Control Assessment (2006)

Herrera performed an inspection of the Westbridge Facility in May 2006 to identify potential source control issues. The following potential issues were identified (Herrera 2006):

- One catch basin was filled with sediment.
- The paint shop did not have a spill kit.
- Sand and debris were observed on the paved surfaces adjacent to West Marginal Way SW.
- Cement block cutting was performed outdoors without proper cleanup.
- The berm around the wash area was too small to contain wash water.

Herrera made the following recommendations to address these issues (Herrera 2006):

- Clean catch basins and perform regular inspections.
- Obtain a spill kit for the paint shop.
- Sweep paved areas on a weekly basis to reduce/prevent track out.
- Perform cement block cutting indoors.
- Make improvements to the berm around the wash area to prevent wash water from entering the storm drain.

5.10.5 Potential for Sediment Recontamination

The potential for sediment recontamination via this property is summarized below by transport pathway.

Stormwater

Seattle Parks completed the corrective actions assigned by Ecology in 2009 and SPU in 2010 (Ecology 2009f; SPU 2010bt). Potential for sediment recontamination due to current facility operations is low provided that the improvements and source control BMPs are maintained.

Groundwater Discharge

Groundwater beneath this property is contaminated with diesel-range hydrocarbons and PAHs. During the last groundwater monitoring event in November 2004, concentrations of diesel-range hydrocarbons exceeded the MTCA Method A cleanup level (GeoEngineers 2005). Concentrations of benzo(a)pyrene and dibenzo(a,h)anthracene exceeded current MTCA Method B cleanup levels and the draft groundwater-to-sediment screening levels. From 2004 to 2011, 12 LDW sediment samples were collected in the areas that are downgradient from the Westbridge Maintenance Facility. PAH concentrations have not exceeded the SQS/CSL in these samples. Therefore, the potential for sediment recontamination via this pathway is low.

5.10.6 Data Gaps

Seattle Parks appears to maintain appropriate source control BMPs and has complied with corrective actions identified by SPU. Therefore, no data gaps were identified for this property.

6.0 Upland Properties: SW Idaho Street SD Basin

Upland properties and facilities within the SW Idaho Street SD basin that could potentially affect sediments near the Spokane Street to Kellogg Island source control area include the following:

- New Finishes/Pacifica
- Continental Van Lines
- Airclean Technologies
- Former Central Painting property/Expert Marble & Granite
- Fog Tite Meter and Seal
- Evergreen Building Products
- Heath Landscape
- West Seattle Estates
- Ortega Property
- South Seattle Community College
- King Residence

The upland properties are not adjacent to the LDW; therefore, surface runoff or spills directly to the waterway and bank erosion are not potential sediment recontamination pathways and will not be discussed in this section. Contaminants from upland properties could be transported to the LDW via stormwater, groundwater, and CSO discharge pathways.

Stormwater and Spills

- Stormwater associated with these properties is conveyed to the sediments adjacent to the Spokane Street to Kellogg Island source control area through the SW Idaho Street SD system. Sediment COCs suspended in stormwater, if any, may be conveyed to the LDW.
- If spills occur at these properties, the spilled materials may flow directly to storm drain catch basins on or adjacent to the property or become commingled with stormwater and be conveyed to the catch basins.
- Contaminants in soil and groundwater beneath these properties, if any, may leach into groundwater and infiltrate the storm drain system. Any concentrations of sediment COCs are likely to be highly diluted, especially when the infiltrating groundwater commingles with stormwater.

Groundwater Discharge

For many of the upland properties within the SW Idaho Street SD basin, there is no available information that indicates the presence of soil and/or groundwater contamination. Soil and/or groundwater investigations have been performed at the facilities listed below. Additional information regarding the environmental investigations and cleanups is included in the facility-specific sections.

Facility	Contaminated Soil	Contaminated Groundwater
Former Central Painting		●
West Seattle Estates		●
Ortega Property	●	●
South Seattle Community College	●	
King Residence	●	

Soil and groundwater contamination is suspected at the Ortega Property, but an environmental investigation has not been performed to verify the presence or absence of environmental contamination.

Combined Sewer Overflow Discharges

Operations or activities at these properties may result in discharges to the sanitary sewer. Contaminants in wastewater (if any) may be transported to the LDW during a CSO event via the Duwamish West CSO. Contaminants in soil and groundwater beneath these properties, if any, may leach into groundwater and infiltrate the combined sewer system. Therefore, there is potential for sediment recontamination associated with combined sewer discharges from these properties. Combined sewer discharges are significantly diluted prior to discharge. The most recent event at the Duwamish West CSO was in December 2007; approximately 6.3 million gallons discharged through the CSO during a three-day storm (King County 2008). The potential that contaminants from these properties will recontaminate the sediments near the Spokane Street to Kellogg Island source control area is very low; therefore, this pathway is not discussed in the facility-specific sections.

6.1 New Finishes/Pacifica

Facility Summary: New Finishes/Pacifica	
Tax Parcel No.	1824049044
Address	4229 West Marginal Way SW 98106
Property Owner	Visko Enterprises Inc.
Parcel Size	2.66 acres (115,869 sq ft)
Facility/Site ID	9627: New Finishes 23704: Pacifica
SIC Code(s)	1721 (New Finishes) 3999 (Pacifica) 5023 (Georgetown Home & Garden LLC)
EPA ID No.	None
NPDES Permit No.	None
UST/LUST ID No.	None

Two companies operate at parcel 9044: New Finishes and Pacifica Marine. The property is bordered by West Marginal Way SW to the east, Continental Van Lines to the south, forested property owned by the Seattle Parks Department to the west, and the Seattle Parks and Recreation Westbridge Maintenance Facility to the north. One building is present on the property, a 31,521 sq ft warehouse/office building constructed in 1953.

6.1.1 Current Operations

New Finishes has operated at the facility since 2003 and uses 4235 West Marginal Way SW as its operating address. New Finishes is a finishing company that specializes in electrostatic, powder coating, sandblasting, and heavy equipment finishing services (New Finishes 2012). The company generates waste paints, solvents, powder coat residue, paint filters, and rags in its operations. New Finishes historically operated under the name Re-New-It Refinishing.

Pacifica has operated at the facility since 2009 and uses the 4233 West Marginal Way SW address (SPU 2010e). The company manufactures and refurbishes mass transportation vehicles, such as rail cars, monorails, buses, and trolleys. Pacifica retrofits diesel engines with filters, catalysts, and data logging and monitoring equipment to reduce the release of diesel particulates to the atmosphere. The company paints vehicles and equipment. The company operates two types of bio-oil extractions systems: one which crushes and filters oil seeds for food or fuel use and one which uses carbon dioxide and other gas solvents to extract bio-oils (Pacifica 2012). Floor drains inside the facility discharge to the combined sewer. Pacifica does not discharge any industrial wastes to the floor drain (SPU 2010e).

One storm drain catch basin is present on the property (SPU 2010 7344]).

6.1.2 Historical Operations

Georgetown Home & Garden operated at this facility from 2006 to 2010 and used the 4239 West Marginal Way SW address. Georgetown Home & Garden designed garden art and planters; manufacturing was performed overseas. Georgetown Home & Garden moved to Kent, WA, in August 2010 (SPU 2010bm).

No additional information regarding historical operations at this property was available for review.

6.1.3 Regulatory History

New Finishes

SPU performed an inspection at New Finishes on January 25, 2010 (SPU 2010a). The following corrective actions were identified (SPU 2010b):

- Complete a written spill plan and post at appropriate locations at the facility.
- Obtain spill containment and cleanup materials.
- Educate employees about the spill plan and spill kit.
- Properly designate and dispose of paint booth filters, paint cleanup rags and towels, powder coat dusts, and spill cleanup residues.
- Properly accumulate, inspect, and label wastes.
- Provide secondary containment for wastes.

SPU performed two follow-up inspections at New Finishes in April 2010 (SPU 2010a). Following the inspection on April 20, 2010, SPU determined that New Finishes had properly implemented all corrective actions and was in compliance (SPU 2010al).

Pacifica

SPU performed an inspection at Pacifica on March 11, 2010. Housekeeping at the property was rated as good. Grape mash, a processing waste, was discharged to an outdoor drain at the northwestern corner of the property. The following corrective actions were identified (SPU 2010e,j):

- Complete a written spill plan and post at appropriate locations at the facility.
- Obtain spill containment and cleanup materials.
- Educate employees about the spill plan and spill kit.
- Properly designate and dispose of paint booth filters, paint cleanup rags and towels, and shot blast dusts.
- Properly accumulate, inspect, and label wastes.
- Provide secondary containment for wastes.

On March 19, 2010, SPU dye tested the outdoor drain at the northwestern corner of the property. Dye-testing showed that the drain is part of a drainage system that runs along the western property line to the southern property line, then follows the southern property line, and finally discharges to the storm drain catch basin at the southeastern corner of the property (SPU 2010k). In May 2010, SPU confirmed that Pacifica had ceased discharges to the outdoor drain (SPU 2010e).

SPU performed three follow-up inspections during April and May 2010 (SPU 2010e, be). Following the May 24, 2010, inspection, SPU determined that Pacifica had properly implemented all corrective actions and was in compliance (SPU 2010bi).

Georgetown Home & Garden

SPU performed an inspection at Georgetown Home & Garden on July 8, 2010. SPU determined the facility was in compliance and no corrective actions were identified (SPU 2010bm, bn).

6.1.4 Potential for Sediment Recontamination

The potential for sediment recontamination via this property is summarized below by transport pathway.

Stormwater

New Finishes and Pacifica completed the corrective actions required by SPU in 2010 (SPU 2010al, bi). Potential for sediment recontamination due to current operations is low provided that the improvements and source control BMPs are maintained.

Groundwater Discharge

There is no information available that indicates that soil or groundwater contamination is present at this property.

6.1.5 Data Gaps

New Finishes and Pacifica appear to maintain appropriate source control BMPs and have complied with corrective actions identified by SPU. Therefore, no data gaps were identified for this property.

6.2 Continental Van Lines

Facility Summary: Continental Van Lines	
Tax Parcel No.	1824049022, 1824049046, 1824049078, 1824049096
Address	9022 - None 9046 - 4501 West Marginal Way SW 98106 9078 - None 9096 - 3850 West Marginal Way SW 98106
Property Owner	West Marginal Properties
Parcel Size	9022: 4.15 acres (180,744 sq ft) 9046: 2.8 acres (121,867 sq ft) 9078: 1.99 acres (86,684 sq ft) 9096: 1.07 acres (46,526 sq ft)
Facility/Site ID	10412
SIC Code(s)	4731
EPA ID No.	None
NPDES Permit No.	None
UST/LUST ID No.	None

Continental Van Lines operates on four parcels owned by West Marginal Properties. The property is bordered by West Marginal Way SW to the east, a mix of residential and commercial properties to the south, forested property owned by the Seattle Parks Department to the west, and New Finishes/Pacifica Marine to the north. There are three buildings located on parcel 9046:

- An 11,800 sq ft warehouse built in 1974,
- A 12,000 sq ft warehouse built in 1962, and
- A 3,483 sq ft office building built in 1986.

6.2.1 Current Operations

Continental Van Lines is a household moving and storage company that has operated at this location since 1960. Large trucks are parked and stored at the facility. Liquid and solid materials are loaded and unloaded at the facility (SPU 2010f).

Used equipment and materials awaiting disposal/recycling are stored in paved, outdoor areas. Equipment maintenance, washing, and fueling are not performed at the facility. Outdoor areas are swept (SPU 2010f).

Four storm drain catch basins are present on the property. An oil/water separator is present. The drainage system is cleaned at least annually and sometimes bi-annually, if needed (SPU 2010f).

6.2.2 Historical Operations

Continental Van Lines has operated at this property for more than 50 years. The warehouses were operated by **Allied Van Lines** and **Crone Moving & Storage Company** prior to Continental Van Lines (SoundEarth 2011b). No additional information regarding historical operations at this property was available for review.

6.2.3 Regulatory History

SPU conducted an inspection of Continental Van Lines on March 16, 2010. Housekeeping at the facility was rated as good. It was noted that the oil/water separator chambers could not be opened and a return was necessary in order to check for sediment (SPU 2010f). The following corrective actions were identified (SPU 2010x):

- Complete a written spill plan and post at appropriate locations at the facility.
- Obtain spill containment and cleanup materials.
- Educate employees about the spill plan and spill kit.
- Clean the oil/water separator and dispose of accumulated materials and oil properly.

SPU returned to Continental Van Lines on April 16, 2010, to inspect the oil/water separator. SPU determined that the oil/water separator needed a down turn elbow and sludge removed. On May 4, 2010, SPU performed a follow-up inspection. Continental Van Lines had signed up for the spill kit program, cleaned the oil/water separator, and added the downturned elbow. SPU determined that Continental Van Lines was in compliance (SPU 2010ah, as, aw).

6.2.4 Potential for Sediment Recontamination

The potential for sediment recontamination via this property is summarized below by transport pathway.

Stormwater

Continental Van Lines completed the corrective actions required by SPU in 2010 (SPU 2010aw). Potential for sediment recontamination due to current facility operations is low provided that the improvements and source control BMPs are maintained.

Groundwater Discharge

There is no information available that indicates that soil or groundwater contamination is present at this property.

6.2.5 Data Gaps

Continental Van Lines appears to maintain appropriate source control BMPs and has complied with corrective actions identified by SPU. Therefore, no data gaps were identified for this property.

6.3 AirClean Technologies Inc.

Facility Summary: AirClean Technologies Inc.	
Tax Parcel No.	2840200650
Address	4725 West Marginal Way SW 98106
Property Owner	B&K Hunter LLC
Parcel Size	0.17 acre (7,500 sq ft)
Facility/Site ID	8547
SIC Code(s)	5211
EPA ID No.	None
NPDES Permit No.	None
UST/LUST ID No.	None

AirClean Technologies operates on parcel 0650. The property is bordered by West Marginal Way SW to the east and the Duwamish Longhouse Cultural Center to the north. Undeveloped land borders the property to the west and south. One building is present on this property, a 5,880 sq ft storage warehouse that was built in 1984.

6.3.1 Current Operations

AirClean Technologies designs and fabricates pollution control systems and hot water, steam, and power generation systems. The company performs equipment testing and inspections for third-party customers (AirClean Technologies 2012). AirClean has operated at this location since 2008 (SPU 2010g).

During a March 2010 inspection, stockpiled equipment, materials awaiting disposal/recycling, and a pellet stove were stored outdoors in a paved area. These items were later moved indoors or to a covered, outdoor storage area (SPU 2010g; Wisdom 2010b).

Scrap metal shavings are generated during manufacturing. During the 2010 inspection, no other waste streams were identified (SPU 2010g).

There are two storm drain catch basins at the facility. The catch basins are equipped with metal elbow outlet traps (SPU 2010g).

6.3.2 Historical Operations

Information regarding historical operations at the property was not available for review.

6.3.3 Regulatory History

SPU performed an initial inspection at AirClean Technologies on March 18, 2010. Sediment accumulation in the storm drain catch basins filled over 60 percent of the catch basin capacity. Housekeeping in outdoor storage areas needed to be improved. The following corrective actions were identified (SPU 2010g):

- Complete a written spill plan and post at appropriate locations at the facility.
- Obtain spill containment and cleanup materials.
- Educate employees about the spill plan and spill kit.
- Clean the storm drain catch basins.
- Improve housekeeping and washing practices.

In addition, the SPU inspector recommended a dye test to verify that the bathroom in the facility discharged to the sanitary sewer (SPU 2010g).

SPU performed a follow-up inspection on May 4, 2010. AirClean Technologies had implemented the corrective actions identified by SPU and was determined to be in compliance (Wisdom 2010b).

6.3.4 Potential for Sediment Recontamination

The potential for sediment recontamination via this property is summarized below by transport pathway.

Stormwater

AirClean Technologies completed the corrective actions required by SPU in 2010 (Wisdom 2010b). Potential for sediment recontamination due to current facility operations is low provided that the improvements and source control BMPs are maintained.

Groundwater Discharge

There is no information available that indicates that soil or groundwater contamination is present at this property.

6.3.5 Data Gaps

AirClean Technologies appears to maintain appropriate source control BMPs and has complied with corrective actions identified by SPU. Therefore, no data gaps were identified for this property.

6.4 Former Central Painting/Expert Marble & Granite

Facility Summary: Former Central Painting/Expert Marble & Granite	
Tax Parcel No.	2840200490
Address	4749 West Marginal Way SW 98106

Facility Summary: Former Central Painting/Expert Marble & Granite	
Property Owner	Sea Be Commercial Ventures
Parcel Size	0.4 acre (17,318 sq ft)
Facility/Site ID	2185
SIC Code(s)	1721: Painting, Paperhanging, Decorating (Central Painting) 1743: Terrazzo, Tile, Marble, and Mosaic Work 1761: Roofing, Siding, and Sheet Metal Work 9999: Nonclassifiable Establishments (Central Painting
EPA ID No.	WAD002837136 - active
NPDES Permit No.	None
UST/LUST ID No.	None

Expert Marble & Granite currently operates at parcel 0490. The property is bordered by West Marginal Way SW to the east, SW Edmunds Street to the south, the West Seattle Greenbelt to the west and northwest, and a vacant lot to the northeast. Fog Tite is located south of the facility. One building is present on the property, a 4,032 sq ft office and warehouse built in 1964.

6.4.1 Current Operations

Expert Marble & Granite is a marble and granite installation and fabrication business. Stone cutting occurs indoors on a wet table saw. Approximately 100 gallons per day of stone cutting and polishing wastewater is discharged into the combined sewer. Wastewater is pumped into a sump and then conveyed to a floor drain inside the building. Stone is stored outdoors in a paved area. Trucks are parked at the facility; no maintenance or fueling operations are performed at the facility. Expert Marble & Granite has operated at this property since 2003 (SPU 2010ae).

There are no storm drain catch basins on the property (SPU 2010ae). Stormwater runoff from the property is likely conveyed to the public storm drain catch basin located in SW Edmunds Street.

6.4.2 Historical Operations

Central Painting, Inc. (Central Painting) began operating at this property in 1965 or 1966 (Ecology 1986); Shannon & Wilson 1988a). The offices of Central Painting were not located on the property until 1977 or 1978. There was a gravel parking lot located on the property up until 1983 when it was paved. All paint mixing and tinting and equipment cleaning was performed at clients' facilities (Ecology 1986).

Central Painting had an unlined waste pit (referred to as the "sump area") on an undeveloped portion of the SW Edmunds Street easement, adjacent to the southwestern corner of the property (Figure 31). Used paint rags, rollers, paint sludge, and paint-related materials were disposed of in the sump area (Shannon & Wilson 1988a).

Jorve Roofing owned the property from February 1995 to June 2003. Information regarding operations performed by Jorve Roofing was not available for review.

6.4.3 Regulatory History

Central Painting

In March 1986, Ecology investigated Central Painting in response to a complaint from the owner of a nearby residential property. While collecting soil samples on the hillside to the west of the property (the sump area), Ecology unearthed paint, paint soaked rags, and paint rollers. Two soil samples were collected (Ecology 1986). Benzene and toluene were detected in the soil samples at "high" levels (Ecology 1987b). Xylenes, tetrachloroethene (PCE), and other organic compounds found in paints and paint solvents were also present in the soil samples (Shannon & Wilson 1988a, 2004).

In July 1990, following a remedial excavation of the sump area (1988–1989) and four quarters of groundwater monitoring, Ecology determined that remedial actions related to soil contamination at the property were complete (Ecology 1990b).

In August 2004, Ecology determined that the property could not be removed from the CSCSL because the nature and extent of contamination in groundwater had not been defined (Ecology 2004c).

Expert Marble & Granite

SPU performed an initial inspection at Expert Marble & Granite, Inc. on April 12, 2010 (SPU 2010ae). The facility was referred to KCIW due to the discharge of wastewater to the combined sewer. SPU identified the following corrective actions (SPU 2010ak):

- Develop a spill prevention plan.
- Obtain spill containment and response equipment.
- Train employees on the spill prevention plan and use of equipment.

On May 19, 2010, SPU determined that Expert Marble & Granite had completed the corrective actions and was in compliance (SPU 2010bc).

6.4.4 Environmental Investigations and Cleanups

Several environmental investigations have been conducted at the former Central Painting property. Sample locations are shown on Figure 31 and a summary of chemicals that exceeded groundwater screening levels is provided in Table 24. A summary of all chemicals detected in groundwater at the facility is included in Table F-17.

Limited Field Investigation (1987)

Five hand auger borings were advanced in the sump area and two groundwater monitoring wells (B-1 and B-2) were installed downgradient of the sump area in July 1987 in order to determine the extent of soil and groundwater contamination related to improper disposal of paint waste. Ten soil samples and two groundwater samples were collected. All soil samples were analyzed for hydrocarbon identification. One soil sample was also analyzed for VOCs, base/neutral/acid,

and metals. The groundwater samples were analyzed for VOCs and base/neutral/acid. Analytical results indicated that the soil was "significantly" contaminated and that PCE and trichloroethylene (TCE) were present in groundwater (Shannon & Wilson 1988a, 2004). In 1988, Ecology measured the depth to groundwater in well B-1 at 8.2 feet bgs (Wang 1988).

Sump Area Remedial Excavation (1988)

A remedial excavation was performed in the sump area in October and November 1988. The final excavation limits were not available, but the vertical extent was at least 13.5 feet bgs. Six confirmation soil samples from three of the sidewalls and the bottom of the excavation area collected and submitted for laboratory analysis (Shannon & Wilson 1988c,d). Approximately 60 cubic yards of contaminated soil was removed from the sump area. The soil was disposed of at the Cedar Hills Landfill (SKCDPH 1989). Analytical results from the soil sampling are not available for review.

Groundwater Monitoring (1989)

Groundwater monitoring was performed at wells B-1 and B-2 (also referred to as MW-1 and MW-2, respectively) for four quarters in 1989. PCE and TCE were detected in groundwater at both wells for all four sampling events. Arsenic, barium, cadmium, copper, nickel, silver, toluene, and zinc were also detected during the sampling period (Shannon & Wilson 1989a,b,c,d). PCE, TCE, and arsenic concentrations exceeded the current MTCA Method B cleanup levels.

Groundwater Sampling (2004)

Groundwater samples were collected from the two monitoring wells on June 23, 2004, to evaluate contaminants in groundwater. The samples were analyzed for petroleum hydrocarbon identification and VOCs. No petroleum hydrocarbons were identified. PCE was detected in both samples at 1.2 µg/L (B-1) and 0.23 µg/L (B-2). TCE was detected in well B-2 at 0.82 µg/L. No other VOCs were detected (Shannon & Wilson 2004).

6.4.5 Potential for Sediment Recontamination

The potential for sediment recontamination via this property is summarized below by transport pathway.

Stormwater

Expert Marble & Granite completed the corrective actions required by SPU in 2010 (SPU 2010bc). Potential for sediment recontamination due to current facility operations is low provided that the improvements and source control BMPs are maintained.

Groundwater Discharge

Groundwater was sampled at the property in 2004. PCE, TCE, and arsenic concentrations exceeded the current MTCA Method B cleanup levels; however, the arsenic concentration did not exceed the draft groundwater-to-sediment screening level. PCE and TCE are not LDW

sediment COCs. The potential for sediment recontamination via the groundwater discharge pathway is low.

6.4.6 Data Gaps

Expert Marble & Granite appears to maintain appropriate source control BMPs and has complied with corrective actions identified by SPU. Therefore, no data gaps were identified for this property.

6.5 Fog Tite Meter and Seal

Facility Summary: Fog Tite Meter and Seal	
Tax Parcel No.	2840201500, 2840201575
Address	1500: 4819 West Marginal Way SW 98106 1575: 4809 West Marginal Way SW 98106
Property Owner	Fog Tite Meter Seal Co Inc.
Parcel Size	1500: 0.80 acre (35,000 sq ft) 1575: 0.29 acre (12,641 sq ft)
Facility/Site ID	1184778
SIC Code(s)	3272: Concrete Products, not elsewhere classified 3499 Fabricated Metal Products, not elsewhere classified
EPA ID No.	WAD009281577 - inactive
NPDES Permit No.	WAR000474
UST/LUST ID No.	None

Fog Tite Meter and Seal Co Inc. (Fog Tite) operates on parcels 1500 and 1575. The property is bordered by West Marginal Way SW to the east, Evergreen Building Products to the south, the McFarland Property to the west, and SW Edmunds Street to the north. One building is present on the property, a 10,440 sq ft open office/industrial light manufacturing warehouse built in 1966 on parcel 1500.

6.5.1 Current Operations

Fog Tite manufactures pre-cast concrete water meter and electrical boxes and catch basins. A small concrete batch plant is located at the southwest corner of the property. Concrete products are poured outdoors. Finished products are stored outdoors, in a storage area at the northern end of the property (Ecology 2009a; SPU 2009c). Fog Tite has operated at the property since 1966 (SoundEarth 2011a).

Since 2009, Fog Tite has made several improvements to the drainage system at the facility. Stormwater from the southwest corner of the property, the west alley, and a portion of the roof is conveyed to a stormwater treatment system prior to discharge to the public storm drain system. Process water and stormwater from other areas of the property are conveyed to the combined sewer system.

6.5.2 Historical Operations

Riverside Auto Wrecking may have used all or portions of the property to store salvaged and wrecked vehicles from 1958 to 1969 (Ecology 1986; SoundEarth 2011a). Additional information regarding historical operations at this property was not available for review.

6.5.3 Regulatory History

In December 1992, Ecology issued NPDES permit number SO3-000474 to Fog Tite (Ecology 1992b). Fog Tite continues to operate under the ISGP; the current ISGP number is WAR000474 and it expires January 1, 2015.

Ecology performed a stormwater compliance inspection on November 1, 2005. Fog Tite did not have a SWPPP and had not submitted DMRs during the last three quarters of 2004 and first three quarters of 2005. Poor housekeeping practices were observed; concrete-slurry water and gravel were on the ground throughout the property. Two used, empty drums were exposed to weather. The inspector requested that empty drums be stored undercover on their sides. The Ecology inspector collected two grab samples; one from the facility's NPDES permit compliance sampling point and one from water leaving the property and discharging to a storm drain catch basin in West Marginal Way SW. The pH level in the grab samples were 10.1 and 9.1, respectively, which violated the ISGP and the state WQS. The following corrective actions were identified (Ecology 2005d):

- Develop a SWPPP and store spill kits on the property.
- Collect samples at the ISGP compliance sampling point and submit DMRs on a quarterly basis in order to comply with the permit.
- Increase sweeping frequency of the yard.
- Develop methods to minimize mixing of stormwater and concrete-slurry water.
- Store used, empty drums on their sides and undercover.
- Provide secondary containment and cover for chemical storage areas.

SPU and Ecology performed an inspection at Fog Tite on March 24, 2009. Fog Tite had not submitted DMRs since the first quarter of 2004. The facility did not have a spill plan. Evidence of concrete wash water was present in the catch basin at the southeast corner of the building. The trench drain on the eastern side of the property was full of sediment. Fog Tite indicated that these structures were plumbed to the sanitary sewer. Liquid products and wastes were stored outdoors without containment or cover. Housekeeping in the outdoor storage area needed improvement (Ecology 2009a; SPU 2009c). SPU identified the following corrective actions (SPU 2009d):

- Determine the discharge point of the facility drainage system.
- Complete a written spill plan and post at appropriate locations at the facility.
- Obtain spill containment and cleanup materials.
- Educate employees about the spill plan and spill kit.

In April 2009, SPU dye tested the catch basins and trench drain on the eastern side of the property. Dye tests confirmed that the structures were connected to the public storm drain system. Stormwater and wastewater from the facility was discharging to the public storm drain, not the sanitary sewer (Ecology 2009b).

SPU and Ecology performed a follow-up inspection on May 7, 2009, due to the April 2009 dye test results. The agencies met with Fog Tite to discuss the permit compliance issues related to the facility's discharge to storm drain system without proper monitoring since 2004. In order to comply with the ISGP, Ecology directed Fog Tite to complete the following actions and submit documentation to Ecology (Ecology 2009b,c):

- Prepare an updated SWPPP that meets the permit conditions.
- Prepare an updated monitoring plan that meets the permit conditions.
- Immediately begin stormwater discharge monitoring and reporting as required by the ISGP.
- Immediately cease and desist the discharge of any and all process water to the storm drain system.
- Clean out the entire facility storm drain system including all trench and strip drains, all catch basins, vaults and sediment traps.

On May 20, 2009, SPU issued an NOV and Order for Corrective Action to Fog Tite. SPU also directed Fog Tite to cease the discharge of process water to the storm drain system and to clean the storm drain system at the facility. In addition, SPU directed Fog Tite to obtain a side sewer permit from the City of Seattle and obtain a discharge authorization from KCIW. SPU provided the company with information regarding the process for obtaining the side sewer permit and discharge authorization (SPU 2009e).

In July 2009, Ecology issued Notice of Penalty No. 6919 for the discharge of process wastewater to the public storm drain and failure to submit DMRs for the last three quarters of 2007, all of 2008, and the first quarter of 2009 (Ecology 2009d).

During the summer and fall of 2009, SPU assisted Fog Tite with its application for the side sewer permit and for the KCIW discharge authorization (Robinson 2009a,b). SPU performed follow-up inspections in September and October 2009 and February 2010 to monitor improvements the property (SPU 2009f,g, SPU 2010c).

SPU performed a follow-up inspection on April 27, 2010. All corrective actions identified by SPU had been completed. Fog Tite had installed a sand filter system at the southwest portion of the property to treat stormwater that drained from the southwest corner, the west alley, and a portion of the roof (SPU 2010ao). SPU determined that Fog Tite was in compliance with the City of Seattle Stormwater Code and reminded Fog Tite of its obligation to comply with the ISGP and KCIW permits (SPU 2010ap).

Fog Tite increased the size of the covered work area, installed a stormwater treatment system (sand filter system), upgraded its SWPPP and began consistent monitoring. Ecology has determined that the facility is in compliance (Wright 2010b).

6.5.4 Potential for Sediment Recontamination

The potential for sediment recontamination via this property is summarized below by transport pathway.

Stormwater

Fog Tite completed the corrective actions required by Ecology and SPU in 2009 (SPU 2010ap; Wright 2010b). Potential for sediment recontamination due to current facility operations is low provided that the improvements and source control BMPs are maintained.

Groundwater Discharge

There is no information available that indicates that soil or groundwater contamination is present at this property.

6.5.5 Data Gaps

Fog Tite appears to maintain appropriate source control BMPs and has complied with corrective actions identified by Ecology and SPU. Therefore, no data gaps were identified for this property.

6.6 Evergreen Building Products LLC

Facility Summary: Evergreen Building Products LLC	
Tax Parcel No.	2840201475
Address	4835 West Marginal Way SW 98106
Property Owner	David & Eugenie Jack
Parcel Size	0.90 acre (39,375 sq ft)
Facility/Site ID	6697
SIC Code(s)	5211
EPA ID No.	None
NPDES Permit No.	None
UST/LUST ID No.	None

Evergreen Building Products operates on parcel 1475. This facility is bordered by West Marginal Way to the west, Heath Landscape to the south, 14th Avenue SW to the east, and Fog Tite to the north. One building is present on the property, a 24,100 sq ft warehouse/office building that was built in 1980.

6.6.1 Current Operations

Evergreen Building Products leases the northern portion of the warehouse. Evergreen Building Products is a plaster, drywall, and masonry products supplier. Pigments are used at the facility and mixed with concrete. Trucks are parked at the facility. Wastewater is generated through washing plaster tools and vehicles. Wash water is recycled by mixing with concrete (SPU 2010i).

One storm drain catch basin is present on the property. The catch basin is cleaned on an annual basis (SPU 2010i).

6.6.2 Historical Operations

Riverside Auto Wrecking operated at this property from 1958 to 1969. Salvaged and wrecked vehicles were stored across the entire property, on the hill to the west of the property, and on Terminal 107 in the area immediately east of the property. In 1969, the buildings associated with Riverside Auto Wrecking were demolished and all vehicles were removed from the property, the hillside, and Terminal 107 (SoundEarth 2011a). Additional information regarding operations at Riverside Auto Wrecking was not available for review.

Information regarding historical operations at this property between 1969 and 1980 was not available for review.

Empire Industrial Supply and **Seattle Fine Woodworking** historically operated at the property, after the property was redeveloped in 1980 (SoundEarth 2011a). Additional information regarding the operations at these companies was not available for review.

6.6.3 Regulatory History

SPU performed an inspection at Evergreen Building Products on March 18, 2010. During the inspection, the inspector found employees washing equipment outside the shop door and wash water from vehicle cleaning was entering the storm drain (SPU 2010i,l). SPU identified the following corrective actions (SPU 2010l):

- Complete a written spill plan and post at appropriate locations at the facility.
- Educate employees about the spill plan and spill response equipment.
- Prevent vehicle wash water from entering the storm drain system by installing a permanent connection to the sanitary sewer, hiring a mobile washer, or washing vehicles at a local car wash.

SPU reinspected Evergreen Building Products on May 4, 2010. The inspector found that the spill plan was not posted and that vehicle washing appeared to be ongoing (SPU 2010at).

SPU returned to Evergreen Building Products LLC on May 27, 2010. SPU determined that the corrective actions had been implemented and the facility was in compliance (SPU 2010bf, bg).

6.6.4 Potential for Sediment Recontamination

The potential for sediment recontamination via this property is summarized below by transport pathway.

Stormwater

Evergreen Building Products completed the corrective actions required by SPU in 2010 (SPU 2010bf). Potential for sediment recontamination due to current facility operations is low provided that the improvements and source control BMPs are maintained.

Groundwater Discharge

There is no information available that indicates that soil or groundwater contamination is present at this property.

6.6.5 Data Gaps

Evergreen Building Products appears to maintain appropriate source control BMPs and has complied with corrective actions identified by SPU. Therefore, no data gaps were identified for this property.

6.7 Heath Landscape Services Inc.

Facility Summary: Heath Landscape Services Inc.	
Tax Parcel No.	2840201470
Address	4849 West Marginal Way SW 98106
Property Owner	Ellen & Donald Heath
Parcel Size	0.20 acre (8,566 sq ft)
Facility/Site ID	16129
SIC Code(s)	0782
EPA ID No.	None
NPDES Permit No.	None
UST/LUST ID No.	None

Heath Landscape operates at parcel 1470. The property is located on the northwest corner of the intersection of West Marginal Way SW and SW Hudson Street. The property is bordered by 14th Avenue SW on the west and Evergreen Building Products to the north. One building is present on the property, a 24,100 sq ft industrial light manufacturing building that was built in 1980.

6.7.1 Current Operations

Heath Landscape has operated at this property since 1990. Heath Landscape is a landscape maintenance and construction business. Pesticides, herbicides, fertilizers, and plastic planting containers are stored outdoors. Trucks are washed at the facility. Less than 5 gallons of petroleum products, used for equipment maintenance, are stored at the facility (SPU 2010q).

There are no storm drain catch basins on the property. Stormwater is conveyed to a right-of-way catch basin on Puget Way SW (SPU 2010q).

6.7.2 Historical Operations

Information regarding historical operations at this property was not available for review.

6.7.3 Regulatory History

SPU performed an inspection at Heath Landscape on March 26, 2010 (SPU 2010q). The inspector observed washing activities in an area that drains to the right-of-way catch basin on Puget Way SW. SPU recommended that Heath Landscape fill backpack sprayers indoors or in area that is not upgradient of the right-of-way catch basin. In addition, the following corrective actions were identified (SPU 2010s):

- Complete a written spill plan and post at appropriate locations at the facility.
- Provide spill response equipment.
- Educate employees about the spill plan and spill response equipment.
- Frequently sweep surfaces to remove debris and dispose of the debris properly.
- Place drip pans where leaks or spills may occur.
- Inspect area and equipment for leaks and spills.
- Provide cover and secondary containment for hazardous materials storage areas, including the backpack sprayers.
- Prevent vehicle wash water from entering the storm drain system by installing a permanent connection to the sanitary sewer, hiring a mobile washer, or washing vehicles at a local car wash.

SPU performed at follow-up inspection at Heath Landscape on May 4, 2010. The backpack sprayers were covered with a tarp and the fill location was moved. Washing continued to be performed upgradient of the right-of-way catch basin on Puget Way SW (SPU 2010au).

Heath Landscape sent an email to SPU stating the following corrective actions had been implemented (Heath 2010):

- The truck washing area was moved to another area of the property, which is more than 100 feet from the storm drain.
- Moved all chemical and fuel storage to the northwest corner of the property.
- Covered storage area with a tent.
- Purchased a plastic bin with grate covering to catch any potential herbicide spills during tank filling.
- Posted a copy of the spill prevention/response plan and trained the employees in the procedures of this plan.

SPU performed a follow-up inspection on June 16, 2010 (SPU 2010bj) and determined that the facility was in compliance (SPU 2010bq).

6.7.4 Potential for Sediment Recontamination

The potential for sediment recontamination via this property is summarized below by transport pathway.

Stormwater

Heath Landscape completed the corrective actions required by SPU in 2010 (SPU 2010bq). Potential for sediment recontamination due to current facility operations is low provided that the improvements and source control BMPs are maintained.

Groundwater Discharge

There is no information available that indicates that soil or groundwater contamination is present at this property.

6.7.5 Data Gaps

Heath Landscape appears to maintain appropriate source control BMPs and has complied with corrective actions identified by SPU. Therefore, no data gaps were identified for this property.

6.8 West Seattle Estates

Facility Summary: West Seattle Estates	
Tax Parcel No.	2840200005, 2840200015, 2840200050, 2840200055, 2840200165, 2840200170, 2840200175, 2840200180, 2840200185, 2840200190, 2840200195, 2840200200, 2840200205, 2840200210, 2840200215, 2840200220, 2840200225, 2840200230, 2840200235, 2840200240, 2840200245, 2840200250, 2840200255, 2840200260, 2840200265, 2840200270, 2840200275, 2840200280, 2840200285, 2840200290, 2840200295
Address	4699 15th Avenue SW 98106
Property Owner	West Seattle Estates
Parcel Size	1.96 acres (82,500 sq ft) - Total
Facility/Site ID	3858982
SIC Code(s)	None
EPA ID No.	None
NPDES Permit No.	None
UST/LUST ID No.	None

6.8.1 Current Operations

West Seattle Estates is composed of 31 0.06- to 0.11-acre undeveloped parcels. The acreage of each parcel is listed in Table C-2. West Seattle Estates is located north of SW Edmunds Street, between 14th and 16th Avenue SW. Residential properties and forested land owned by Seattle

Parks are adjacent to the tract. The McFarland Property is located to the south, on the southern side of SW Edmunds Street.

6.8.2 Historical Operations

The parcels in the West Seattle Estates tract were historically owned by **Pankrantz Lumber** and the **McFarland family**. Information regarding historical operations at the property was not available for review.

6.8.3 Regulatory History

According the ISIS database, groundwater at the property was contaminated by priority pollutant metals. The property was part of the VCP (ID NW1722). On July 6, 2009, Ecology granted an NFA for the property and indicated that the cleanup was complete with active monitoring ongoing. No additional information regarding this property was available for review.

6.8.4 Potential for Sediment Recontamination

The potential for sediment recontamination via this property is summarized below by transport pathway.

Stormwater

Stormwater at West Seattle Estates infiltrates the ground surface. Contaminants in stormwater, if any, infiltrating the ground surface may be conveyed to groundwater and released to the LDW via the groundwater discharge pathway. Stormwater also collects in ditches along 16th Avenue SW. The ditches convey stormwater to culvert installed on the eastern side of Puget Way SW, which discharges to the LDW at SW Idaho Street.

Groundwater Discharge

Cleanup activities have been performed to remediate priority pollutant metals in groundwater. Active monitoring is apparently ongoing; however, no records of the environmental investigations and cleanups at this property were available for review. Concentrations of priority pollutant metals remaining in groundwater, if any, are unknown. Ecology has granted an NFA. Groundwater is likely to flow to the south towards Puget Creek. Puget Creek discharges to the LDW at SW Idaho Street. The potential for sediment recontamination via this pathway is unknown.

6.8.5 Data Gaps

Information needed to assess the potential for sediment recontamination associated with current or historical operations at this property is listed below:

- Additional information regarding the environmental investigation and cleanup at this property is needed to evaluate the potential for sediment recontamination via the groundwater discharge pathway.

6.9 Ortega Property

Facility Summary: Ortega Property	
Tax Parcel No.	3438500191
Address	5235 18th Avenue SW
Property Owner	Antonio Ortega
Parcel Size	0.12 acre (5,207 sq ft)
Facility/Site ID	9581551
SIC Code(s)	None
EPA ID No.	None
NPDES Permit No.	None
UST/LUST ID No.	None

The Ortega Property is located on parcel 0191. The property is bordered by 18th Avenue SW to the east, and private residences to the north, west, and south. A 970 sq ft single family home, built in 1928, is present on the property.

6.9.1 Current and Historical Operations

The property is a privately owned residence. The home has been present since 1928.

On February 28, 2007, a heating oil spill occurred on the Ortega Property while the owner was servicing an AST. The heating oil reportedly saturated the surface at the source area and spread west onto the neighbor's property at 5236 19th Avenue SW. The area impacted was approximately 8 feet by 8 feet (Ecology 2007c).

Based on the GIS shapefiles provided by SPU, there are no connections to the storm drain system from this property. Stormwater runoff from this property either infiltrates the ground surface or is conveyed to the combined sewer.

6.9.2 Regulatory History

In March 2007, Ecology directed the property owner to clean up the areas contaminated by the February 2007 heating oil spill and characterize soil and groundwater for petroleum (Ecology 2007c).

Ecology issued the Ortega Property an early notice letter on March 26, 2007, stating that the property had been added to the CSCSL (Ecology 2007d).

6.9.3 Potential for Sediment Recontamination

The potential for sediment recontamination via this property is summarized below by transport pathway.

Stormwater

Stormwater runoff from this property either infiltrates the ground surface or is conveyed to the combined sewer. The potential for sediment recontamination via this pathway is incomplete.

Groundwater Discharge

Soil and groundwater beneath the property may be contaminated with heating oil. Groundwater likely discharges to one of the streams in Puget Park, either to the north or east of the property. Contaminated groundwater may infiltrate the storm drain system, but heating oil is not an LDW sediment COC. The potential for sediment recontamination via this pathway is incomplete.

6.9.4 Data Gaps

The potential pathways for sediment recontamination related to historical petroleum contamination at this property are incomplete. Therefore, no data gaps were identified for this property.

6.10 South Seattle Community College

Facility Summary: South Seattle Community College	
Tax Parcel No.	6171900005, 2135200050
Address	0005: 6000 16th Avenue SW 98106 0050: None
Property Owner	Seattle Community College
Parcel Size	0005: 59.59 acres (2,595,802 sq ft) 0050: 23.33 acres (1,016,401 sq ft)
Facility/Site ID	43445813
SIC Code(s)	7538: General Automotive Repair Shops 8222: Junior Colleges 8149: Vocational Schools, Not Elsewhere Classified
EPA ID No.	WAD037414083
NPDES Permit No.	None
UST/LUST ID No.	UST: 5966 LUST: 3593

South Seattle Community College (SSCC) operates on two parcels located within the source control area. In King County tax assessor records, the 24 buildings that comprise the campus are listed as one a 441,071 sq ft building. The campus was built in 1970, primarily on parcel 0005. The campus is located on the eastern side of 16th Avenue SW between SW Brandon Street and SW Morgan Street. Puget Park and the West Seattle Greenbelt border the property to the north, east, and south.

The Seattle Chinese Garden Society owns a 4.63-acre parcel (2135200025) that is located within the boundaries of SSCC parcel 0050.

6.10.1 Current Operations

SSCC offers many courses of study; some of which involve potential pollution-generating activities. These courses include aviation, automobile mechanics and body repair, baking, diesel mechanics, chemistry, ceramics, cosmetology, horticulture, photography, pottery, welding, and wine making (Ecology 1999b; SPU 2011).

Wastes generated during these courses include acids, antifreeze, batteries, brake fluid, metals, mineral spirits, paints and coatings, paint booth filters, petroleum and oils, photo fixer silver solution, oil filters, restaurant grease, sandblast waste, solvents, and wash water from paint gun cleaners and parts washers (Ecology 1999b, 2004b; SPU 2011).

Equipment is washed in several areas of the property. The types of equipment include grounds maintenance equipment, cars, tractor trucks, and kitchen equipment. Wash water generated in the auto repair garage is conveyed to an oil/water separator before discharge to the sanitary sewer (SPU 2011).

Seventy-five storm drain catch basins are present on the property. Floor drains are present in many of the buildings (SPU 2011).

6.10.2 Historical Operations

SSCC has been operating at this property since the 1970s. Information regarding operations prior to the 1970s was not available for review.

6.10.3 Regulatory History

1990s

In July 1992, Ecology issued a compliance schedule for UST system gauging and tightness testing for the following USTs: 122-1D, 127-1D, 128-1D, 128-2S, 129-1D, 130-8D, 130-9D, and 130-1F through 130-7F (Ecology 1992a).

In June 1996, Ecology and King County inspected the campus as part of a hazardous waste management technical assistance project. At the time of the inspection, over 220 pounds of hazardous wastes were generated at the campus each month. In general, the campus was managing hazardous wastes appropriately. Ecology and King County identified more than 80 following corrective actions related to hazardous waste management and reporting requirements (Ecology and King County 1996).

On May 21, 1999, Ecology performed a dangerous waste inspection at the campus. Eighteen corrective actions related to dangerous waste management, including labeling, accumulation, and storage practices, were identified (Ecology 1999b). SSCC completed the corrective action in September 1999 (SSCC 1999).

2000s

On October 29, 2003, Ecology inspected the Aviation Department as part of providing technical assistance to SSCC for waste designation, handling, and storage. The visit was requested by SSCC. During the visit, the following wastes were identified: parts washer and solvents, jet fuel, hydraulic fluid, oil, drips and spills from airplanes, absorbent materials used to clean up spills, contaminated rags, and used batteries and light bulbs. Ecology provided SSCC with several publications regarding dangerous waste regulations including guidance on proper management of wastes (Ecology 2003c).

On June 29, 2004, Ecology performed a HWTR inspection at the campus due to continued delinquency in providing Dangerous Waste Annual Reports to Ecology and recurring violations. Ecology inspected seven areas of the campus where wastes were generated and/or stored; waste storage and management was out of compliance in all areas. Ecology identified the following corrective actions (Ecology 2004b):

- Properly designate and label all waste containers, including contents and accumulation start dates. Wastes must be designated as hazardous, dangerous, or universal.
- Keep all dangerous waste containers closed except when actively adding or removing wastes.
- Perform weekly inspections of dangerous waste accumulation areas and containers.
- Provide immediate access to communication devices or alarms to personnel involved in handling dangerous wastes.
- Properly document waste accumulation dates in order to comply with accumulation time limits.
- Submit Dangerous Waste Annual Reports.
- Provide emergency and spill response equipment in waste accumulation and storage areas.
- Provide secondary containment for wastes.
- Dispose of dangerous wastes at a TSD-permitted facility.

On August 16, 2004, Ecology met with SSCC representatives to provide technical assistance in completing the corrective actions that were identified in June 2004 (Davidson 2004).

On November 16, 2004, Ecology re-inspected the campus. Ecology determined that SSCC had begun to implement many of the corrective actions identified in June 2004, but was still out of compliance in several areas. In particular, Ecology noted that the corrective actions were not applied to the entire campus, but only to the seven areas where wastes were generated and/or stored. Ecology identified 10 corrective actions, seven of which were to correct repeated violations from the June 2004 inspection. Three new corrective actions were identified (Ecology 2004d):

- Create and maintain a Treatment by Generator log to track neutralized wastes.
- Create a contingency plan.
- Develop a dangerous waste training program and maintain training records.

Ecology determined that SSCC satisfactorily completed all corrective actions on May 31, 2005 (Ecology 2005b).

Ecology performed a follow-up inspection on July 19, 2005. Ecology noted that SSCC had made significant progress in handling hazardous and dangerous wastes; however, several violations that were identified during the 2004 inspections were again observed. Ecology identified 10 corrective actions, all of which had been previously identified during the June and November 2004 inspections (Ecology 2005c). On August 31, 2005, Ecology determined that SSCC satisfactorily completed all corrective actions (Ecology 2005f).

Ecology performed a follow-up inspection on November 15, 2005. Seven repeat violations were identified. Ecology identified seven corrective actions, all of which had been previously identified during 2004 and July 2005 (Ecology 2005g).

Ecology performed a follow-up inspection on June 15, 2006. Two repeat violations were identified, which were an inadequate dangerous waste training plan and incorrect storage of universal waste (Ecology 2006b). SSCC completed the corrective actions within 24 hours of the inspection (Ecology 2006c).

Ecology performed a HWTR inspection on October 14, 2008. Three corrective actions were identified during the inspection (Ecology 2008c):

- Properly identify and label wastes as hazardous or dangerous.
- Label waste containers with the accumulation start date.
- Demonstrate that the 1-year time limit for the accumulation of universal wastes has been met.

On November 3, 2008, Ecology determined that SSCC had satisfactorily completed the corrective actions identified during the October 2008 inspection (Ecology 2008e).

2010s

SPU performed an initial inspection at the campus on June 6, 2011. The SPU inspector noted that several empty waste oil USTs are present at the property. A trash compactor was located over a storm drain. Grease drums were stored on a gravel pad. Wash water from outdoor equipment washing was conveyed to the storm drain system. The following corrective actions were identified (SPU 2011):

- Develop and implement spill response procedures, obtain spill response materials, and train employees.
- Clean and repair storm drain catch basins.
- Correct an illicit connection.
- Implement proper housekeeping and equipment washing procedures.
- Properly store containerized materials.
- Properly dispose of waste.

On October 19, 2011, SPU determined that SSCC had completed the corrective actions and the facility was in compliance (SPU 2011).

6.10.4 Environmental Investigations and Cleanups

One environmental investigation has been performed at SSCC. Sample locations are shown on Figures 32a through 32e and a summary of chemicals that exceeded soil screening levels is provided in Table 25. Summaries of all chemicals detected in soil and groundwater at the facility are included in Tables F-18 and F-19.

Underground Storage Tank Closure Assessments (1994)

Between December 1993 and April 1994, 17 USTs, two ASTs, two oil/water separators, eight hydraulic hoists, and one sump were removed from the property. The USTs and AST systems had previously been in operation for 12 to 25 years. Approximately 380 cubic yards of soil were removed and disposed of off-property during the removal activities. Excavations were backfilled with pea gravel, with the exception of the JP-4 USTs excavation (Tanks 130-5F through 130-7F). The JP-4 USTs pit was backfilled with stockpiled soil. New UST systems were installed in May 1994 (Converse 1994).

Soil samples were collected from the sidewalls and bottoms of the excavations and analyzed for TPH, BTEX, and lead. TPH, benzene, toluene, and ethylbenzene concentrations were below the MTCA Method A cleanup levels except in the soil samples that were collected from the east wall of the UST 130-1F, 130-2F, and 130-8D excavation and the floor samples collected from seven of the eight hoist cylinders (Converse 1994).

Approximately 500 gallons of groundwater were removed from UST excavations. All groundwater encountered had concentrations of BTEX and gasoline-range hydrocarbons that were below the MTCA Method A cleanup levels (Converse 1994).

Decommissioned Equipment					
ID	**Date Installed**	**Date Removed**	**Contents**	**Size (gallons)**	**Tank Condition**
USTs					
122-1D	1972	1994	Waste oil	500	Poor: hole, rusty
127-1D	1968	1994	Waste oil	500	Good: slightly rusted
128-1D	1968	1994	Waste oil	500	Good: slightly rusted
129-1D	1968	1994	Paint waste	500	Good: slightly rusted
130-1F	1968	12/30/1993	Naphtha	500	Intact: slightly rusted
130-2F	1968	12/30/1993	Aviation gasoline	500	Intact: slightly rusted
130-3F	1968	4/20/1994	JP-4	1,000	Good: fluid leaking from piping
130-4F	1968	4/20/1994	JP-4	500	Good: fluid leaking from piping

Decommissioned Equipment					
ID	**Date Installed**	**Date Removed**	**Contents**	**Size (gallons)**	**Tank Condition**
130-5F	1968	4/13/1994	JP-4	4,000	Intact: heavily rusted
130-6F	1968	4/13/1994	JP-4	4,000	Intact: heavily rusted
130-7F	1968	4/13/1994	JP-4	4,000	Intact: heavily rusted
130-8D	1968	12/30/93	Waste Oil	500	Intact: slightly rusted, green stained soil surrounding UST
130-9D	1968	4/20/1994	Waste Oil	500	Good: fluid leaking from piping
143-2F	1978	4/13/1994	Diesel Fuel	1,000	Good: few rust spots
143-3F	1978	4/13/1994	Unleaded Gasoline	1,000	Intact: heavy rust, no pitting
143-4F	1978	4/13/1994	Leaded Gasoline	1,000	Intact: heavy rust, no pitting
146-1D	Unknown	2/24/94	Waste Oil	500	Good
ASTs					
143-0F	Unknown	12/30/1993	Diesel Fuel	500	Intact
143-1F	Unknown	12/30/1993	Diesel Fuel	500	Intact: staining visible in surrounding concrete pad
Other Equipment					
Hydraulic Hoists	Unknown	March 1994	8 hydraulic cylinders	-	
Washrack	Unknown	12/30/1994	Oil/Water Separator	2,000	
Steam Clean	Unknown	2/24/1994	Oil/Water Separator	2,000	

6.10.5 Potential for Sediment Recontamination

The potential for sediment recontamination via this property is summarized below by transport pathway.

Stormwater

SSCC completed the corrective actions assigned by Ecology from 2004 to 2008 and SPU in 2011 (Ecology 2005b,f, 2006c, 2008e; SPU 2011). Potential for sediment recontamination due to current facility operations is low provided that the improvements and source control BMPs are maintained.

Groundwater Discharge

Soil beneath this property is contaminated with TPH and VOCs. These contaminants are not LDW sediment COCs; therefore, the potential for sediment recontamination via groundwater discharge is incomplete.

6.10.6 Data Gaps

SSCC appears to maintain appropriate source control BMPs and has complied with corrective actions identified by Ecology and SPU. Therefore, no data gaps were identified for this property.

6.11 King Residence

Facility Summary: King Residence	
Tax Parcel No.	2428200191
Address	0191: 6518 16th Avenue SW
Property Owner	Robert & Roberta King
Parcel Size	0191: 0.27 acre (11,550 sq ft)
Facility/Site ID	3121499
SIC Code(s)	88: Private Household
EPA ID No.	WAD980986640 - inactive
NPDES Permit No.	None
UST/LUST ID No.	None

The King residence is located on parcel 0191. The property is bordered by 16th Avenue SW to the west, private residences to the north and south, and by a wooded, wetland area to the east. A 1,200 sq ft single family home, built in 1946, is present on the property.

6.11.1 Current & Historical Operations

The property is a privately owned residence. The home has been present since 1946.

6.11.2 Regulatory History

On November 4, 2004, a complaint was filed to Ecology about a red oily substance discharging from a storm pipe that runs under 16th Avenue SW adjacent to Holly Street. SPU investigated the complaint and determined that the source of the oil was from a leaking heating oil UST on the King Residence. The oil was leaking from the tank into the storm drain. The storm drain discharged to a swale at 16th Avenue SW and SW Myrtle Street (Ecology 2005a).

The owner of the house was sent an early notice letter in August 2005 stating the requirements for the cleanup of the Kings Residence property and indicating that the property had been listed on the CSCSL (Ecology 2005e).

6.11.3 Environmental Investigations and Cleanups

Filco was hired by the property owner to remove the UST, remove contaminated soil, and clean the storm drain. SPU determined that the property owner properly cleaned the storm drain system and adequately met his responsibility with regard to this portion of the cleanup (Ecology 2005a). The property owner did not submit a UST removal report or confirmation samples for the soil cleanup to Ecology, which resulted in Ecology adding the property to the CSCSL in August 2005 (Ecology 2005e).

6.11.4 Potential for Sediment Recontamination

The potential for sediment recontamination via this property is summarized below by transport pathway.

Stormwater

The property owner met his obligation to clean the storm drain following the discovery that heating oil from a UST on his property was leaking into the storm drain system. SPU and Ecology confirmed that the leakage had stopped following removal of the UST (Ecology 2005a). Stormwater from this property discharges to a swale located within the SW Idaho Street storm drain basin. In addition, heating oil is not an LDW sediment COC. The potential for sediment recontamination via this pathway is incomplete.

Groundwater Discharge

Soil and groundwater beneath the property may be contaminated with heating oil. Groundwater likely discharges to the wetland area to the east of the property. Contaminated groundwater may infiltrate the storm drain system, but heating oil is not an LDW sediment COC. The potential for sediment recontamination via this pathway is incomplete.

6.11.5 Data Gaps

The potential pathways for sediment recontamination related to historical petroleum contamination at this property are incomplete. Therefore, no data gaps were identified for this property.

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7.0 Properties with Cement Kiln Dust Fill

CKD is generated as a very fine material emitted from the calcining process (the heating process used to make cement out of raw materials such as limestone, clinker for metals, and other calcareous materials). The cement dust generated during calcining is a very fine, talcum-like dust, or flue "ash," captured in dust collection systems attached to the rotary calcining kilns. Baghouse filters and electrostatic precipitators are generally used to capture and collect the fine dust from the hot gases of the calcining operation (Riley 2005). The CKD generally has a strong alkali content (pH 10.5 to 12.0), and often contains metals that represent the content of the clinker source materials used in the calcining operation. Capture of CKD and use as fill material increased after passage of the Clean Air Act in 1970.

A review of environmental studies for properties in the LDW basin where CKD was used as fill material, conducted by The Riley Group in 2005 (Riley 2005), found elevated concentrations of metals in the CKD material and in shallow groundwater in direct contact with CKD. These metals included lead (400 to 2,000 mg/kg in CKD, 5 to 8 µg/L in groundwater), arsenic (20 to 280 mg/kg in CKD, 3 to 120 µg/L in groundwater), cadmium (1.0 to 10 mg/kg in CKD, 0.3 to 3 µg/L in groundwater), and chromium (20 to 30 mg/kg in CKD, 50 to 80 µg/L in groundwater). The pH ranged from 11 to 12 in CKD and 7 to 12 in groundwater.

CKD was used as fill at several properties in the LDW basin, including the following properties in the Spokane Street to Kellogg Island source control area:

- Puget Park and the McFarland Property
- Washington Federal Savings & Loan

Environmental investigations associated with the presence of CKD at these facilities are summarized in the relevant subsections below.

These properties are geographically located within the SW Idaho Street SD basin; however, based on information from SPU, no storm drain structures are present on these properties (Appendix C, maps B4 and B5). Stormwater likely infiltrates the ground surface at these properties, which are mostly unpaved forested and undeveloped land. Groundwater may discharge through seeps into the natural streams that are present on Puget Park and the McFarland Property. The streams are tributaries to the LDW. Groundwater beneath the Washington Federal Savings & Loan property is discharged to the combined sewer.

7.1 Puget Park and the McFarland Property

Facility Summary: Puget Park and the McFarland Property	
Tax Parcel No.	The McFarland Property: 2840700005 Pigeon Point Park: 1324039019, 1324039078, 2424039024 Puget Park: 2424039020, 2840700135
Address	0005: 4818 15th Avenue SW 98106 0135: None

Facility Summary: Puget Park and the McFarland Property	
	9019: None 9020: 4767 16th Avenue SW 98106 9024: None 9078: None
Property Owner	0005: Thomas S. McFarland 0135, 9019, 9020, 9024 & 9078: Seattle City of Parks Department
Parcel Size	0005: 3.56 acres (155,267) 0135: 1.54 acres (67,023 sq ft) 9019: 9.97 acres (434,293 sq ft) 9020: 17.57 acres (765,349 sq ft) 9024: 12.22 acres (532,303 sq ft) 9078: 16.70 acres (727,452 sq ft)
Facility/Site ID	2479: Puget Park 2575: The McFarland Property 6149702: Upper Hudson Street Site
SIC Code(s)	None
EPA ID No.	WAH000028395 – inactive (Upper Hudson Street Site)
NPDES Permit No.	None
UST/LUST ID No.	None

7.1.1 Current Operations

Parcels 0135, 9019 and 9020 are part of Puget Park and parcels 9019, 9024 and 9078 are part of Pigeon Point Park, which are part of the West Duwamish Green Belt (Figure 6). The parks are open to the public. Parcel 0005 is a private residence.

There are no records indicating that CKD was used as fill at Pigeon Point Park; however, the park is included in this section because proposed development of parcel 9019 led to the environmental investigations of CKD-fill at Puget Park and the McFarland Property. An oil spill was reported at Pigeon Point Park in 2006. Information regarding the spill and cleanup is provided in Section 7.1.4.

7.1.2 Historical Operations

Parcel 9020 of Puget Park was used a landfill for CKD in 1969 by the Ideal Cement Company (currently Lafarge). A portion of the McFarland property was also used for disposal of CKD. Approximately 11,000 to 40,000 cubic yards of CKD were disposed of on the properties (Seattle Parks 1993; Ecology 1996d; Hart Crowser 1996).

In the 1990s, the Mayer family, owners of parcel 9019 (Pigeon Point), planned to construct apartments on the property. Development of the property required widening of Puget Way SW. Two proposed routes for widening the road traversed parcels 0005 and 0135, both of which were owned by the McFarland family (GTHMPD 1994; Atkinson 1994).

In December 1997, the McFarland family granted a 50-foot-wide street easement through parcel 0005 for Puget Way SW to the City of Seattle. In March 2000, the easement was amended to include slope easements and temporary construction easements over parcel 0005 to the City of Seattle and the Mayer family (King County 2000). The purpose for the amendment was to allow widening of Puget Way SW.

In June 2002, the McFarland family gave ownership of parcel 0135 to the City of Seattle, with the intent that the parcel would become part of Puget Park (McFarland 2002).

7.1.3 Regulatory History

In June 1993, Seattle Parks notified Ecology that CKD had been dumped on Puget Park (Seattle Parks 1993). In May 1994, Ecology notified Seattle Parks that Puget Park had been added to the CSCSL (Ecology 1994a).

In August 1994, the attorney for the Pigeon Point property (parcel 9019) notified Ecology that tens of thousands of CKD had been dumped on the McFarland property and Puget Park. CKD was not present on the Pigeon Point Property (GTHMPD 1994).

In 1995, Ecology determined that CKD at the property would not be designated as a dangerous waste after reviewing the results of a fish bioassay test (Ecology 1995).

In April 1996, Ecology notified the McFarlands that their property (parcel 0135) had been added to the CSCSL due to the presence of CKD (Ecology 1996c).

In July 2003, the McFarland family notified Ecology that CKD fill was uncovered on parcel 0005. Mr. McFarland stated that the fill originated at Ideal Cement (now Larfarge) and was placed at the property in 1969 or 1970 by the same individual who placed the CKD fill at the Puget Park and McFarland properties (Section 7.2). Mr. McFarland had excavated approximately 1,000 cubic yards of CKD from the property (McFarland 2003).

During a meeting with Ecology in December 2003, Seattle Parks indicated that plans to construct a leachate collection trench downgradient of the Puget Park Lobe were being developed. Collected water would be discharged to the sanitary sewer (Cargill 2003). In January 2005, Seattle Parks submitted the plans to Ecology for review (Seattle Parks 2005). Records documenting the installation of the leachate collection trench were not found during the file review. It is not known if the trench was installed.

In January 2007, Ecology notified Seattle Parks that additional remedial actions were required at Puget Park. The lateral and vertical extents of arsenic and lead contamination in soil and groundwater had not been determined (Ecology 2007a).[14]

[14] The January 2007 letter lists PCBs as a contaminant associated with the CKD fill. In November 2007, Ecology indicated that PCBs were not a chemical of concern in "virgin" CKD (Myers 2007).

7.1.4 Environmental Investigations and Cleanups

Several environmental investigations have been conducted at Puget Park and the McFarland property. Sample locations are shown on Figures 33 through 35. Chemicals that exceeded environmental media screening levels are provided in Tables 26 through 29. Summaries of all chemicals detected in environmental media at the properties are included in Tables F-20 through F-24. For surface and seep water samples, chemical concentrations were compared to the Marine Chronic and Acute WQS and the draft groundwater-to-sediment screening levels.

Seep Sampling – Puget Park (1993)

In June 1993, Seattle Parks collected water samples from a seep that flowed through the CKD-fill area of Puget Park towards Puget Creek. Arsenic, mercury, and selenium were detected in the seep samples (Table 26) (Seattle Parks 1993). Mercury concentrations exceeded the draft groundwater-to-sediment screening levels.

CKD Investigation – The McFarland Property (1994)

In July 1994, 28 soil/CKD samples were collected from two areas of the McFarland property. The areas were being evaluated for a proposed road-widening project (RZA AGRA 1994a). Concentrations of arsenic, cadmium, lead, mercury, and silver were detected in the samples at concentrations exceeding MTCA cleanup levels and/or the draft soil-to-sediment screening levels (Table 27). In November 1994, two additional CKD samples were collected from the McFarland property to characterize the CKD for waste disposal (RZA AGRA 1994b). All sample locations are shown on Figure 33.

Remedial Evaluation – Puget Park and the McFarland Property (1996 to 1997)

A remedial evaluation was performed in August 1996 to characterize the nature and extent of CKD fill at Puget Park and the McFarland property in 1996. Based on historical geotechnical data and field observations, approximately 30,000 sq ft of CKD was estimated to be present on the McFarland Property (referred to as the McFarland Lobe). Twenty-one test pits were excavated on the Puget Park property to define the extent of the CKD fill. Approximately 100,000 sq ft of CKD was estimated to be present on the Puget Park property (referred to as the Puget Park Lobe). The maximum thickness of the fill was 20 feet. A 5- to 10-foot thick layer of silty clay/clayey silt is present beneath the fill (Hart Crowser 1996).

Two surface water samples, SW-1 and SW-2, were collected from Puget Creek and a seep sample, PP-Seep, was collected to determine the potential impact of CKD fill to water quality (Figure 34). Three rounds of sampling were performed in August and October 1996 and July 1997. The samples were analyzed for arsenic, cadmium, and lead. Lead was detected in surface water sample SW-1 and in the seep samples (Hart Crowser 1997). The lead concentrations in the seep samples exceeded the Marine Chronic WQS and the draft groundwater-to-sediment screening level (Table 26).

Calcium carbonate formations were identified in shallow soil in three areas, identified as areas A1 through A3 on Figure 34. Samples of the calcium carbonate were collected and analyzed for arsenic, cadmium, and lead (Hart Crowser 1996). Concentrations of cadmium and lead exceeded

MTCA cleanup levels and the draft soil-to-sediment screening levels. Arsenic concentrations exceeded the MTCA Method B cleanup level (Table 28).

Independent Remedial Action – Puget Park and the McFarland Property (1997)

Remedial actions were performed in 1997 to meet the following goals (Hart Crowser 1997):

- Eliminate the potential for human contact with CKD and calcium carbonate formations.
- Eliminate potential dust generation and releases to the atmosphere from CKD.
- Control runoff, further sedimentation, and precipitation of the CKD to the environment.
- Maintain and enhance the wooded greenbelt.

To achieve these goals, the following actions were performed (Hart Crowser 1997). Figure 35 illustrates the remedial actions:

- Approximately 7.5 tons of waste, including used tires, appliances, and other household items were removed from the property.
- Approximately 250 feet of hay bale sediment fences and 200 feet of geotextile silt fences were installed for erosion control.
- Temporary gravel construction roads were graded with clean soil and hydroseeded.
- A 2-foot-thick enhanced soil cover consisting of slightly gravelly, sandy silt was installed over the CKD fill and hydroseeded. An approximately 6,200 sq ft area on the Puget Park Lobe and 26,500 sq ft area on the McFarland Lobe were covered.
- Precipitate chambers were installed in two areas of active calcium carbonate precipitation to enhance the removal of dissolved carbonates and other inorganic compounds from seep waters.
- A culvert was installed under Puget Way SW to direct stormwater runoff from residential properties from entering a drainage ravine between the Puget Park and McFarland properties. The culvert directed runoff to the eastern side of Puget Way SW.
- Barrier plants, such as huckleberry and dogwood, were planted at the perimeter of the fill areas, and wooded plants, such as maple and alder trees, were planted in the open spaces to discourage public access to the CKD fill area.
- A temporary fence was installed to allow sufficient time for the barrier and wooded plants to develop. The fence was meant to be left in place for two years.

Post-Remediation Monitoring and Evaluation – Puget Park and the McFarland Property (1998 to 1999)

The precipitate chambers were inspected in March 1998. Seep water had become trapped in the chambers and burst through the surface, allowing seep water to flow towards Puget Creek. The

chambers were clogged with silt. Holes were punched in the geotextile fabric lining the chambers to allow the sediment to flow through the chamber (Geo Group 2003a).

Samples of seep and creek water were collected in June 1998 and 1999. Seep samples were collected upgradient and downgradient from the precipitate chambers. Dissolved lead concentrations were higher in the outflow samples (Geo Group 2003a). Lead concentrations exceeded the Marine Chronic WQS and draft groundwater-to-sediment screening levels (Table 26).

Limited Screening for Dioxin – Puget Park and the McFarland Property (2003)

In October 2003, six CKD samples were collected from the Puget Park and McFarland Lobes to determine if dioxins/furans were present in the CKD fill. The samples, with the exception of Sample #2, were combined and analyzed as composite sample for dioxins/furans. Sample #2 was determined to be a sample of the enhanced soil cap and, therefore, was not included in the composite sample. Samples of Puget Creek sediment, the calcium carbonate precipitate, and seep water were collected as well. Dioxins/furans were detected in all environmental media that were sampled (Tables F-23 and F-24) (Geo Group 2003b). The dioxins/furans TEQ for the Puget Creek sediment sample exceeded the LDW background TEQ (Table 29).

Independent Remedial Action – Pigeon Point Park (2006)

Two utility poles were vandalized in a remote area of Pigeon Point Park in 2006. The vandalism appears to have occurred on the eastern side of the park, either on parcel 9019 or 9078. Oil from transformers had been emptied onto the ground in two areas, covering approximately 150 square feet and 120 square feet. Soil samples were collected and analyzed for PCBs and mineral oil. PCBs were not detected; mineral oil concentrations exceeded MTCA cleanup levels. Both areas were excavated to remove the contaminated soil. Confirmation samples indicated that PCBs were not present and the remaining mineral oil concentrations were below MTCA cleanup levels (Table F-25) (Seattle City Light 2006).

7.1.5 Potential for Sediment Recontamination

The potential for sediment recontamination via this property is summarized below by transport pathway.

Stormwater

Stormwater at Puget Park and the McFarland property infiltrates the ground surface. The potential for sediment recontamination via this pathway is incomplete.

Groundwater Discharge

Soil and groundwater beneath the property are contaminated with metals. The lateral and vertical extents of arsenic and lead contamination in soil and groundwater had not been determined. Groundwater discharges to Puget Creek, which enters the LDW near SW Idaho Street. Lead and arsenic concentrations have not exceeded sediment screening levels in sediment samples collected near Outfall 2147. The potential for sediment recontamination via this pathway is low.

7.1.6 Data Gaps

- Additional information is needed to determine if the leachate collection trench was installed downgradient of the Puget Park Lobe.

7.2 Washington Federal Savings & Loan Property

Facility Summary: Washington Federal Savings & Loan Property	
Tax Parcel No.	1924049004
Address	SW Hudson Street & West Marginal Way 98106
Property Owner	Surplus Items Inc.
Parcel Size	27.71 acres (1,207,186 sq ft)
Facility/Site ID	None
SIC Code(s)	None
EPA ID No.	None
NPDES Permit No.	None
UST/LUST ID No.	None

The property is bordered by SW Hudson Street to the north, West Marginal Way SW to the east, additional areas of the West Duwamish Green Belt and SSCC to the south, and SW Brandon Street to the west. An unimproved dirt road passes from north to south through the property, approximately parallel to West Marginal Way SW.

7.2.1 Current Operations

The topography of the property slopes generally west to east, with the lowest point of the property adjacent to West Marginal Way SW. The property is wooded. An intermittent stream flows from south to north at the northwest portion of the property. A drainage ditch flows into the stream. At the northeast corner of the property, a French drain has been installed to intercept spring water contaminated by CKD fill. Springs and seeps at the eastern slope of the property are directed to the French drain (Hong West 1993).

Surplus Items is responsible for the maintenance of the drainage system at the property.

7.2.2 Historical Operations

The property was logged and cleared prior to 1930. Gravel and/or soil were removed from the property along the current West Marginal Way SW. The resulting pit may have been filled with CKD. Between the 1940s and 1970s, **A. Abrahamson Brick Co.** cleared the property and built access roads to mine clay from the property for brick manufacturing. Ideal Cement (currently owned by Holcim) filled the area with CKD. Ecology estimated that 100,000 to 350,000 tons of CKD was placed as fill between 1967 and 1971. No significant land use activity occurred on the property after 1976 (Hong West 1993; GeoEngineers 1993).

7.2.3 Regulatory History

In March 1989, Ecology received a complaint of milky white liquid flowing down the hillside at the Washington Federal Savings & Loan Association (WFSL) property. The liquid was assumed to be leachate from the CKD fill (Ecology 1989a). Ecology collected samples of the leachate; samples were analyzed for metals (Ecology 1989b). Concentrations of lead and mercury exceeded the Marine Chronic WQS and the draft groundwater-to-sediment screening levels (Table 30).

In March 1990, Ecology toured the WFSL property to inspect improvements that were made to reduce contaminated stormwater runoff from the property. Stormwater entering the property had been diverted to a ditch parallel to the roadway; the water remained in contact with the CKD and was whitish in color. Flow from an underground spring was entering catch basins on the property. Hundreds of car tires were disposed of on the property (Ecology 1990a).

In February 1991, METRO issued Minor Discharge Authorization No. 266 to WFSL for the discharge of contaminated spring water to the sanitary sewer (METRO 1991). The spring was connected to the sanitary sewer in June 1991 (WFSL 1991). Ecology confirmed that completing the connection to the sanitary sewer was the final step for controlling CKD leachate from the property, but reserved the right to reinvestigate the property if conditions, such as property use, changed (Ecology 1991).

In February 1999, Ecology was notified that a milky substance was discharging to West Marginal Way SW and entering the storm drain near the WFSL property (Ecology 1999a). The leachate collection structure was cleaned in 1999 and 2001 to remove calcium carbonate precipitate buildup (Centurion 2001).

KCIW has requested that Surplus Items (associated with Holcim) install a pH neutralization system to prevent scale formation in the sanitary sewer (Tiffany 2012). Surplus Items currently holds KCIW Discharge Permit No. 266.

7.2.4 Environmental Investigations and Cleanups

Four leachate samples were collected at the property in May 1989 and analyzed for metals (Environmental Control 1990a). Copper and lead concentrations exceeded the Marine Chronic WQS. Lead concentrations also exceeded the draft groundwater-to-sediment screening level (Table 30).

Four leachate samples were collected on February 2, 1990, after the completion of efforts to divert the stormwater runoff away from the CKD fill to reduce the alkalinity. The volume and pH of the leachate were reduced (Environmental Control 1990b); however, chemical concentrations from samples collected in the northern portion of the property were similar to the May 1989 concentrations. Copper and lead concentrations exceeded the Marine Chronic WQS. Lead and silver concentrations exceeded the draft groundwater-to-sediment screening level (Table 30).

Phase I Environmental Site Assessment (1993)

A Phase I ESA was performed in 1993 on behalf of the City of Seattle. The large volume of CKD and contaminated runoff and leachate from the property were identified as environmental concerns (Hong West 1993).

Phase II Environmental Site Assessment (1993)

A Phase II ESA was performed in 1993 to evaluate the nature and extent of the CKD fill. Ten test pits (TP-1 through TP-10) were excavated along the unimproved road (Figure 36). CKD was encountered in 5 of the 10 test pits. One sample of soil or CKD from each test pit was analyzed for total metals. Arsenic concentrations exceeded the MTCA Method B cleanup level in soil and CKD. Cadmium and lead concentrations in CKD exceeded MTCA cleanup levels and the draft soil-to-sediment screening level; lead also exceeded the draft soil-to-sediment screening level in one soil sample. Silver concentrations in CKD exceeded the draft soil-to-sediment screening level (Table 31).

Six temporary groundwater monitoring wells (WP-1 through WP-6) were installed at depths up to 20 feet bgs. Groundwater was not encountered. Two leachate and three stream water samples (SW-1 through SW-3) were collected analyzed for dissolved metals. Barium and lead were detected in the leachate samples; lead exceeded the Marine Chronic WQS and the draft groundwater-to-sediment screening level (Table 30). Barium was the only metal detected in the surface water samples (Table F-26).

Leachate Sampling (1999)

In 1999, two leachate and one calcium carbonate precipitate sample were collected following a report in February that the leachate was entering the storm drain. Lead concentrations in the leachate exceeded the Marine Chronic WQS and the draft groundwater-to-sediment screening level (Table 30). Lead was detected at 360 mg/kg in the calcium carbonate precipitate sample, which exceeded the MTCA Method A cleanup level and the draft soil-to-sediment screening level (Wendlick 1999).

7.2.5 Potential for Sediment Recontamination

The potential for sediment recontamination via this property is summarized below by transport pathway.

Stormwater

Stormwater at the WSFL property infiltrates the ground surface. The potential for sediment recontamination via this pathway is incomplete.

Groundwater Discharge

Soil and groundwater beneath the property are contaminated with metals. Groundwater at the property is conveyed to a collection trench and discharged to the sanitary sewer. The potential for sediment recontamination via this pathway is incomplete.

7.2.6 Data Gaps

No data gaps were identified for the WFSL property.

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8.0 Summary

The Spokane Street to Kellogg Island source control area is one of 24 source control areas identified as part of the overall cleanup process for the LDW Superfund Site. Ecology is the lead agency for source control for the LDW site. Source control is the process of finding and eliminating or reducing releases of contaminants to LDW sediments, to the extent practicable. The goal of source control is to prevent sediments from being recontaminated after cleanup has been undertaken. The plan is to identify and manage potential sources of sediment recontamination in coordination with sediment cleanups. Source control will be achieved by using existing administrative and legal authorities to perform inspections and require necessary source control actions.

8.1 COCs in Sediments Near the Spokane Street to Kellogg Island Source Control Area

The following chemicals are considered to be COCs for the Spokane Street to Kellogg Island source control area with regard to potential sediment recontamination (Section 2.2.2):

- Metals: lead, mercury, and zinc;
- PAHs: acenaphthene, benzo(a)anthracene, benzo(a)pyrene, benzo(g,h,i)perylene, benzofluoranthenes, chrysene, dibenzo(a,h)anthracene, fluoranthene, fluorene, indeno(1,2,3-cd)pyrene, phenanthrene, pyrene, and total HPAH;
- BEHP and butyl benzyl phthalate;
- Other SVOCs: 2,4-dimethylphenol, 4-methylphenol, benzoic acid, benzyl alcohol, dibenzofuran, n-nitroso-di-n-propylamine, and phenol;
- PCBs; and
- Dioxins/furans.

8.2 Potential Adjacent or Upland Sources of Contaminants

Seven public storm drains, four drainage ditches and channels, and one CSO/EOF discharge to the LDW within the Spokane Street to Kellogg Island source control area:

Outfall No.	Outfall Name	Diameter/Material	Outfall Type
2147	SW Idaho Street SD	72-inch concrete	Public SD
2148	NA	12-inch CPE	Public SD
2149	SW Dakota Street SD, head	24-inch CPE	Public SD
2150	NA	18-inch CPE	Public SD
2226	NA	Creek	Public Creek
2232	NA	18-inch CPE	Public SD
2233	SW Dakota Street SD, mouth	Drainage channel	Public Creek
8132	T103_01	Unknown	Public SD

Outfall No.	Outfall Name	Diameter/Material	Outfall Type
8133	T103_02	Unknown	Public SD
8134	T103_03	Drainage channel	Public Ditch
8135	T103_04	Drainage channel	Public Ditch
NA	Duwamish West CSO, Siphon West CSO	36-inch (material unknown)	Public CSO/EOF

In addition, two private outfalls and seven outfalls of unknown origin discharge to the LDW within the Spokane Street to Kellogg Island source control area:

Outfall No.	Outfall Owner	Diameter/Material	Outfall Type
2139	Lafarge Cement	6-inch ductile iron	Private SD
2140	NA	8-inch steel	Unknown SD
2141	NA	8-inch steel	Unknown SD
2142	NA	8-inch steel	Unknown SD
2143	NA	8-inch steel	Unknown SD
2144	NA	10-inch ductile iron	Unknown SD
2145	NA	4-inch ductile iron	Unknown SD
2146	NA	6-inch ductile iron	Unknown SD
2157	General Recycling	24-inch concrete	Private SD

8.2.1 7th Avenue S SD Basin

8.2.2 SW Dakota Street SD Basin

The SW Dakota Street SD basin covers approximately 54 acres, spanning west-to-east from 19th Avenue SW to West Marginal Way SW and north to south from the West Seattle Bridge to SW Idaho Street. A portion of the Terminal 105 Park, Pacific Rendering, and Ferguson Enterprises properties are within the SW Dakota Street SD basin (Figure 4). Land uses within the storm drain basin include industrial and commercial properties.

There are 18 facilities within the SW Dakota Street SD basin (Table 1):

- 3 of these facilities are listed on Ecology's CSCSL (1 of these facilities has received an NFA determination from Ecology).
- 1 facility has an active EPA ID number.
- 1 facility is listed on Ecology's LUST and UST lists.

8.2.3 SW Idaho Street SD Basin

The SW Idaho Street SD basin covers approximately 424 acres, spanning west-to-east from 21st Avenue SW to West Marginal Way SW between RM 0.2 and 0.9 West and from 21st Avenue SW to South Seattle Community College between RM 0.9 and 2.2 West. Between RM 0.2 and 0.3 West, the storm drain basin extends east of West Marginal Way SW. The storm drain basin

spans north-to-south from SW Idaho Street to SW Myrtle Street (Figure 4). Land uses within the storm drain basin include industrial, commercial, and residential properties.

There are 17 facilities within the SW Idaho Street SD basin, including the properties with CKD fill (Table 1):

- 5 facilities are listed on Ecology's CSCSL (1 of these facilities has received an NFA determination from Ecology).
- 2 facilities have active EPA ID numbers.
- 1 facility holds an NPDES permit.
- 2 facilities hold a King County Industrial Waste (KCIW) discharge permit.
- 1 facility is listed on Ecology's LUST and UST lists.

8.2.4 Combined Sewer Overflow

Duwamish West CSO

The Duwamish West CSO basin covers approximately 860 acres. On the west side of the LDW, the CSO basin spans west-to-east from Delridge Way SW to the LDW. Park land in this area is not included in the CSO basin (Figure 6 and Appendix C, Figure C-1). From north-to-south the CSO basin spans from 26th Avenue SW (north of the West Seattle Bridge) to SW Holly Street (western side of the basin) and Terminal 115 (eastern side of the basin). The Duwamish West CSO basin includes Harbor Island (Appendix C, Figure C-1). Land uses within the CSO basin include industrial, commercial, and residential properties. The Chelan Avenue and Harbor CSO basins are secondary and tertiary contributors to the Duwamish West CSO basin (King County 2009).

Ecology has assigned Facility/Site Identification numbers to 143 facilities/properties within the Duwamish West CSO basin (Table C-1):

- 31 facilities are listed on Ecology's CSCSL (7 of these facilities have received an NFA determination from Ecology).
- 42 facilities have active EPA ID numbers.
- 24 facilities hold NPDES permits.
- 7 facilities have KCIW discharge authorizations or permits.
- 21 facilities are listed on Ecology's LUST list.
- 43 facilities are listed on Ecology's UST list.

Chelan and Harbor CSOs

The Chelan and Harbor CSO basins are secondary and tertiary contributors to the Duwamish West CSO basin. The Chelan CSO basin covers approximately 2,471 acres, spanning west-to-east from 35th Avenue SW to 9th Avenue SW and north-to-south from Port of Seattle Terminal 5 to SW Roxbury Street (Appendix D, Figure D). The Harbor CSO basin covers approximately 470 acres, spanning west-to-east from California Avenue SW to Harbor Avenue SW and north-

to-south from SW Olga Street to SW Findlay Street (Appendix E, Figure E). Land uses within these CSO basins include industrial, commercial, and residential properties.

The Chelan CSO facilities are listed by category in Appendix D and their locations are shown on the maps in Appendix D. The following industrial and commercial facilities within the Chelan CSO basin have been identified:

- 111 facilities have been assigned Ecology Facility/Site ID numbers.
- 23 facilities are listed on Ecology's CSCSL.
- 15 facilities have active EPA ID numbers.
- 8 facilities hold an NPDES permit.
- 2 of these facilities have KCIW discharge authorizations or permits.
- 16 of these facilities are listed on Ecology's LUST list.
- 36 of these facilities are listed on Ecology's UST list.

The Harbor CSO facilities are listed by category in Appendix E and their locations are shown on the maps in Appendix E. The following industrial and commercial facilities within the Harbor CSO basin have been identified:

- 47 facilities have been assigned Ecology Facility/Site ID numbers.
- 10 facilities are listed on Ecology's CSCSL.
- 4 facilities have active EPA ID numbers.
- 1 facility holds an NPDES permit.
- 9 of these facilities are listed on Ecology's LUST list.
- 21 of these facilities are listed on Ecology's UST list.

8.2.5 Adjacent and Upland Properties

Properties located directly adjacent to the LDW that could affect sediments from RM 0.0 to 1.0 West include (Figure 4):

- Riverside Mill LLC property and it tenants
  - Bob's Boat Shop
  - United Motor Freight
- BNSF Railroad Right-of-Way
- Port of Seattle Terminal 103 and its tenants
  - General Construction Company
  - Northwest Aggregates
- Global Diving & Salvage
- Port of Seattle Terminal 105
- Pacific Rendering
- Ferguson Enterprises
- General Recycling of Washington

- Former Seaboard Lumber Property, which includes:
  - Evergreen Trails
  - Herring's House Park
- Port of Seattle Terminal 107 and its tenant
  - Alaska Marine Lines

Upland properties and facilities within the SW Dakota Street SD basin that could potentially affect sediments from RM 0.0 to 1.0 West include the following:

- Former Fraser Properties
- Tryg Winquist
- West Seattle Recycling Center
- Active Environmental
- Former Concrete Restoration
- Heathco and Penthouse Drapery
- Raynroof Roofing
- 4101 West Marginal Way Business Park and its tenants
  - Aquatic Enterprises
  - Cohesive Garage
  - Metal Shorts
  - Wheelchairs Plus
- Strutz Property
- Seattle Parks and Recreation Westbridge Maintenance Facility

Upland properties and facilities within the SW Idaho Street SD basin that could potentially affect sediments from RM 0.0 to 1.0 West include the following:

- New Finishes/Pacifica
- Continental Van Lines
- Airclean Technologies
- Former Central Painting property/Expert Marble & Granite
- Fog Tite Meter and Seal
- Evergreen Building Products
- Heath Landscape
- West Seattle Estates
- Ortega Property
- South Seattle Community College
- King Residence

Cement kiln dust (CKD) was used as fill at several properties in the LDW basin, including the following properties in the Spokane Street to Kellogg Island source control area:

- Puget Park and the McFarland Property
- Washington Federal Savings & Loan

These properties are geographically located within the SW Idaho Street SD basin; however, based on information from SPU, no storm drain structures are present on these properties (Appendix C, maps B4 and B5).

In addition, the Duwamish West CSO basin was reviewed to identify any additional facilities that could represent potential sediment recontamination sources. Ecology has assigned Facility/Site identification numbers to 143 facilities within the Duwamish West CSO basin (Appendix C).

Readily available information regarding the outfalls and properties in the Spokane Street to Kellogg Island source control area has been summarized in Sections 3.0 through 7.0 of this Data Gaps Report.

8.3 Potential Contaminant Migration Pathways

Potential sources of sediment recontamination associated with the Spokane Street to Kellogg Island source control area include storm drains, CSO outfalls, and discharges from adjacent and upland properties. Transport pathways that could contribute to the recontamination of sediments within the source control area following remedial activities include direct discharges via outfalls, surface runoff (sheet flow) from adjacent properties, bank erosion, groundwater discharges, air deposition, and spills directly to the LDW.

8.3.1 Direct Discharges via Outfalls

Direct discharges may occur from public or private storm drain systems, CSOs, and EOFs. There are seven public outfalls, two private outfalls, seven storm drain outfalls of unknown origin, four drainage channels and ditches and one CSO within the Spokane Street to Kellogg Island source control area.

Large spills of hazardous substances and waste materials containing COCs may be transported to a storm drain and therefore have the potential to impact sediment in the LDW. There is a potential for spills of COCs from many of the industrial and commercial businesses from upland properties as well as from trucks and trains transporting hazardous substances and waste materials. Spills that occur in upland properties could enter the onsite or public storm drain system and be discharged to the LDW.

8.3.2 Surface Runoff (Sheet Flow)

In areas lacking collection systems, spills or leaks on properties adjacent to the LDW could flow directly over impervious surfaces or through creeks and ditches to the waterway. Current practices at adjacent properties may contribute to the movement of contaminants to the LDW via runoff.

8.3.3 Spills to the LDW

Near-water and overwater activities have the potential to impact adjacent sediment from spills directly to the LDW of material containing COCs. Parcels adjacent to the LDW within the Spokane Street to Kellogg Island source control area are a combination of public parks and industrial properties that conduct overwater activities. Accidental spills during loading/unloading operations may result in transport of contaminants to sediment. Facilities that conduct overwater activities include Riverside Mill, Terminal 103 and General Recycling.

8.3.4 Groundwater Discharges

Contaminants in soil resulting from spills and releases to adjacent and upland properties may be transported to groundwater and subsequently released to the LDW. Soil and groundwater contamination was documented at the following properties:

- Riverside Mill
- Terminal 103
- Global Diving & Salvage
- Terminal 105
- Pacific Rendering
- Ferguson Enterprises
- General Recycling
- Former Seaboard Lumber
- Terminal 107
- Former Concrete Restoration
- 4101 West Marginal Way Business Park
- Strutz Property
- Seattle Parks and Recreation Westbridge Maintenance Facility
- Former Central Painting/Expert Marble & Granite
- West Seattle Estates
- Ortega Property
- South Seattle Community College
- King Residence
- Puget Park and the McFarland Property
- Washington Federal Savings & Loan Property

Contamination in soil and groundwater could be released directly to sediments via groundwater discharge.

8.3.5 Bank Erosion

The banks of the LDW shoreline are susceptible to erosion by wind and surface water, particularly in areas where banks are steep. Shoreline armoring and the presence of vegetation

reduce the potential for bank erosion. Banks within the Spokane Street to Kellogg Island source control area are composed of riprap, vegetation, wharfs, metal sheetwalls and exposed soil. Facilities with exposed soil along the shoreline include BNSF Railroad Right-of-Way, Terminal 105, General Recycling, former Seaboard Lumber (Herring's House Park), and Terminal 107. Contaminants in exposed soils along the banks could be released directly to sediments via erosion.

8.3.6 Atmospheric Deposition

Atmospheric deposition occurs when air pollutants enter the LDW directly or through stormwater. Air pollutants may be generated from point or non-point sources. Point sources include industrial facilities; air pollutants may be generated from painting, sandblasting, loading/unloading of raw materials, and other activities, or through industrial smokestacks. Non-point sources include dispersed sources such as vehicle emissions, aircraft exhaust, and off-gassing from common materials such as plastics. Air pollutants may be transported over long distances by wind and can be deposited to land and water surfaces by precipitation or particle deposition. Pacific Rendering is the only facility within the Spokane Street to Kellogg Island source control area that is currently regulated as point sources of air emissions.

8.4 Data Gaps

Data gaps have been identified for outfalls and adjacent and upland properties in Sections 3.0 through 7.0.

8.4.1 Initial Inspections

Facility inspections have not been performed by Ecology or SPU at the following properties, or new activities have been introduced since the facility was last inspected. Based on the information reviewed for the Data Gaps Report, operations at these facilities may represent potential sediment recontamination sources.

Facility or Property Name	Current Operator	Address	Facility/ Site ID	Data Gaps Report Section
Adjacent Properties				
Port of Seattle Terminal 103	General Construction	3840 West Marginal Way SW 98106	2302559 7754458 94648691	4.3
Global Diving & Salvage	Same	3840 West Marginal Way SW 98106	None	4.4
Facilities in the SW Dakota Street SD Basin				
Former Fraser Properties	Global Diving & Salvage Rehabitat Northwest	3601 & 3801 West Marginal Way SW 98106	72321478	5.1

Facility or Property Name	Current Operator	Address	Facility/ Site ID	Data Gaps Report Section
Former Concrete Restoration	Gary's Westside Towing Global Diving & Salvage	4025 & 4035 West Marginal Way SW 98106	9688 31119678	5.5

All Facility/Site ID numbers associated with a facility/property are listed in the table.

8.4.2 Follow-Up Inspections

Corrective actions were identified at the following facilities during recent inspections performed from 2008 to 2012. To date, the corrective actions have not been achieved or the facility has not been re-inspected to confirm compliance with the corrective actions. Follow-up inspections are needed at the following facilities:

Facility or Property Name	Current Operator	Address	Facility/ Site ID	Data Gaps Report Section
Adjacent Properties				
Port of Seattle Terminal 103	Northwest Aggregates	3840 West Marginal Way SW 98106	2302559 7754458 94648691	4.3
Pacific Rendering	Encore Oils	4034 West Marginal Way SW 98106	6869 10287	4.6
Former Seaboard Lumber Property	Evergreen Trails	4500 West Marginal Way SW 98106	75577212 83317575 88471591	4.9

All Facility/Site ID numbers associated with a facility/property are listed in the table.

8.4.3 Facility-Specific Data Gaps

Facility specific data gaps were identified for the facilities listed below.

Data Gaps	Facility/ Site ID	Data Gaps Report Section
SW Dakota Street SD Basin (Outfall 2149) and SW Idaho Street SD Basin (Outfall 2147)		
Additional information is needed to determine if undocumented industrial operations are occurring within the 7th Avenue S SD basin that may be an ongoing source of sediment recontamination.	NA	3.1
Outfalls 2140, 2141, 2142, 2143, 2144, 2145, 2146		
Information regarding the status of these unresolved outfalls is needed to determine if they are operational or have been abandoned.	NA	3.2
Additional information is needed to determine if storm drain lines are connected to the unresolved outfalls and the associated drainage areas of these outfalls, if any, to determine the potential for sediment recontamination via the stormwater pathway.		

Data Gaps	Facility/ Site ID	Data Gaps Report Section
Adjacent Properties		
Riverside Mill LLC Property (3800 West Marginal Way SW 98106)		
A facility plan showing the locations of catch basins and storm drains is needed to evaluate the potential for contaminant transport to the LDW via the stormwater discharge and surface runoff pathways.	2093 4091 10931 89431534	4.1
Information regarding the excavation and removal of soil contaminated with PCBs and lead is needed to evaluate the potential for sediment recontamination via the groundwater discharge pathway.		
Sediment samples from the LDW adjacent to the Riverside Mill property are needed.		
BNSF Railroad Right-of-Way		
Additional information is needed to determine whether the drainage ditch discharges to the LDW.	None	4.2
Sediment samples from the LDW adjacent to the BNSF Railroad Right-of-Way are needed.		
Global Diving & Salvage (3840 West Marginal Way SW 98106)		
Additional information is needed to determine if catch basins at the Global Diving & Salvage facility are plumbed to the storm drain system at Terminal 103 or the SW Dakota Street SD system.	None	4.4
Port of Seattle Terminal 105 (4014 West Marginal Way SW 98106)		
Additional information is needed to determine if the Liquid Disposal Corporation USTs (Tanks 13 through 16) have been removed from the Terminal 105 Park.	21179265 24172765 44375557 53456833 66711778 76453385 97821669	4.5
Additional information is needed to determine if the PCB-bearing dredge spoils remain at the property.		
Encore Oils, formerly Pacific Rendering (4034 West Marginal Way SW 98106)		
Additional information is needed to determine if Encore Oils is required to obtain coverage under the ISGP or is eligible for a CNE certificate.	6869 10287	4.6
Ferguson Enterprises (4100 West Marginal Way 98106)		
Additional information is needed to determine if the PCB-bearing dredge spoils remain at the property.	18675	4.7
Port of Seattle Terminal 107 (5402 West Marginal Way SW 98106)		
Additional information is needed to determine the potential inputs to a pipe located near the ravine in the northern portion of the Terminal 107 Park.	154727759 6168526	4.10
In order to determine the potential for sediment recontamination via the soil and groundwater and bank erosion/leaching pathways, additional information is needed to determine if soil and groundwater are contaminated due to the historical industrial operations performed at Terminal 107.		
Facilities in the SW Dakota Street SW Basin		
Former Concrete Restoration (4025 and 4035 West Marginal Way SW 98106)		
Additional information regarding the previous environmental investigation(s) at the property is needed to determine if LDW sediment COCs are present in soil and groundwater at concentrations indicating a potential for sediment recontamination.	9688 31119678	5.5

Data Gaps	Facility/ Site ID	Data Gaps Report Section
Facilities in the SW Idaho Street SW Basin		
West Seattle Estates (4699 15th Avenue SW 98106)		
Additional information regarding the possible improper disposal of PCB-oil and metal shavings is needed to determine the potential for sediment recontamination via the groundwater discharge pathway.	3858982	6.8
Puget Park and the McFarland Property (4818 15th Avenue SW 98106 & 4767 16th Avenue SW 98106)		
Additional information is needed to determine if the leachate collection trench was installed downgradient of the Puget Park Lobe.	2479 2575 6149702	7.1

All Facility/Site ID numbers associated with a facility/property are listed in the table.

8.5 Facilities in Compliance

No facility-specific data gaps were identified for the facilities listed below. These facilities have been inspected by Ecology or SPU within the past four years (2008 or later). Ecology and SPU inspectors identified corrective actions for the facilities and verified that the facilities complied with the corrective actions during a re-inspection. For some of these facilities, no corrective actions related to source control were identified during the inspection.

Facility or Property Name	Address	Facility/ Site ID	Data Gaps Report Section
Facilities in the SW Dakota Street SD Basin			
Tryg Winquist Construction	3839 West Marginal Way SW 98106	20891	5.2
West Seattle Recycling Center	3881 16th Avenue SW 98106	2981502	5.3
Active Environmental Inc.	4001 16th Avenue SW 98106	20843	5.4
Heathco International Inc./Penthouse Drapery	4025 16th Avenue SW 98106	12698 24724	5.6
Raynproof Roofing	4117 16th Avenue SW 98106	23451	5.7
4101 West Marginal Way Business Park	4101 West Marginal Way SW 98106	11229 14517 39342192 1916	5.8
Seattle Parks and Recreation Westbridge Maintenance Facility	4201 W Marginal Way SW 98106	2999235 59252684	5.10
Facilities in the SW Idaho Street SD Basin			
New Finishes/Pacifica	4229 West Marginal Way SW 98106	9627 23704	6.1
Continental Van Lines	4501 West Marginal Way SW 98106	10412	6.2

Facility or Property Name	Address	Facility/ Site ID	Data Gaps Report Section
AirClean Technologies Inc.	4725 West Marginal Way SW	8547	6.3
Former Central Painting/Expert Marble & Granite	4749 West Marginal Way SW 98106	2185	6.4
Fog Tite Meter and Seal	4819 West Marginal Way SW 98106	1184778	6.5
Evergreen Building Products LLC	4835 West Marginal Way SW 98106	6697	6.6
Heath Landscape Services Inc.	4849 West Marginal Way SW 98106	16129	6.7
South Seattle Community College	6000 16th Avenue SW 98106	43445813	6.10

All Facility/Site ID numbers associated with a facility/property are listed in the table.

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Figures

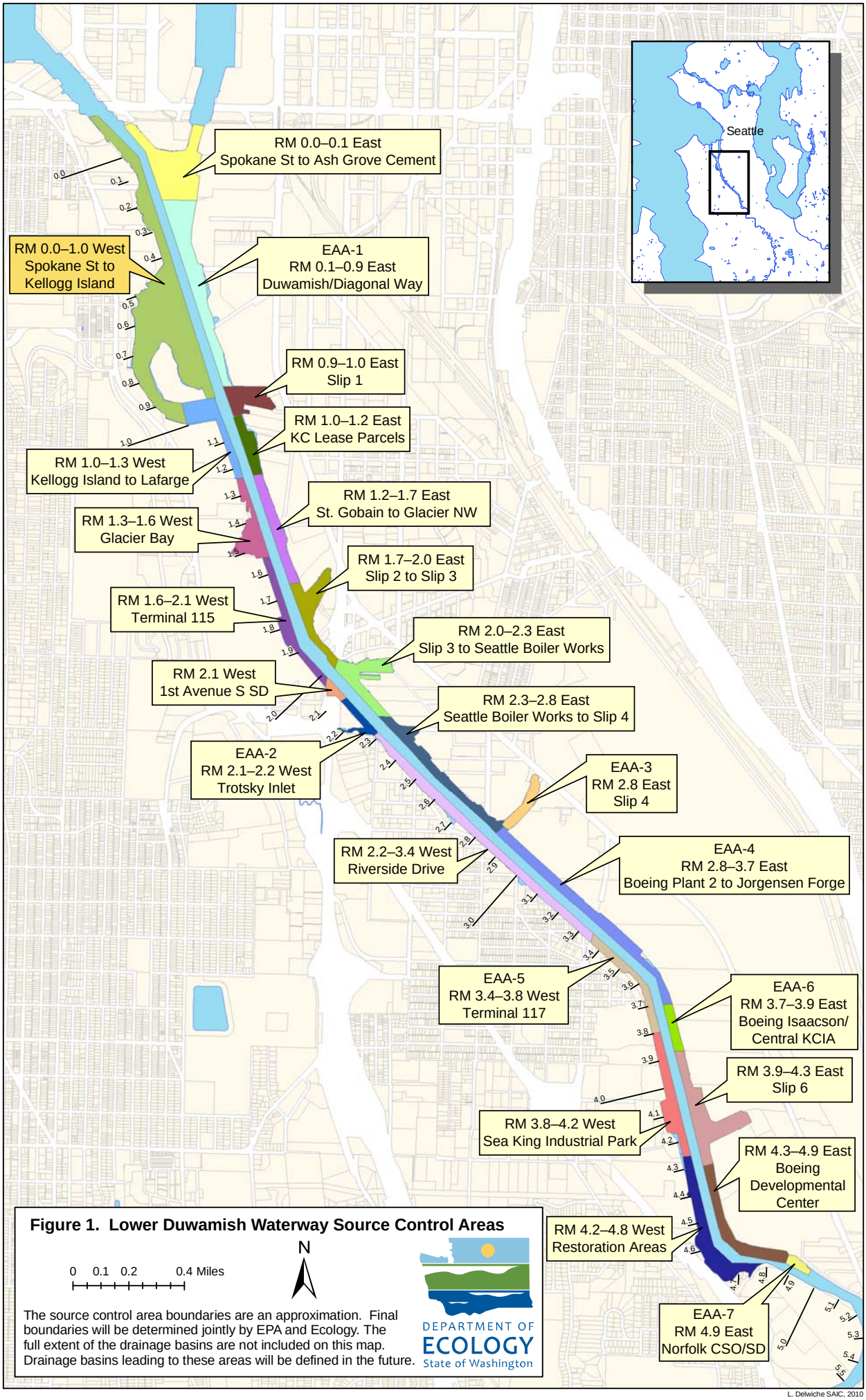
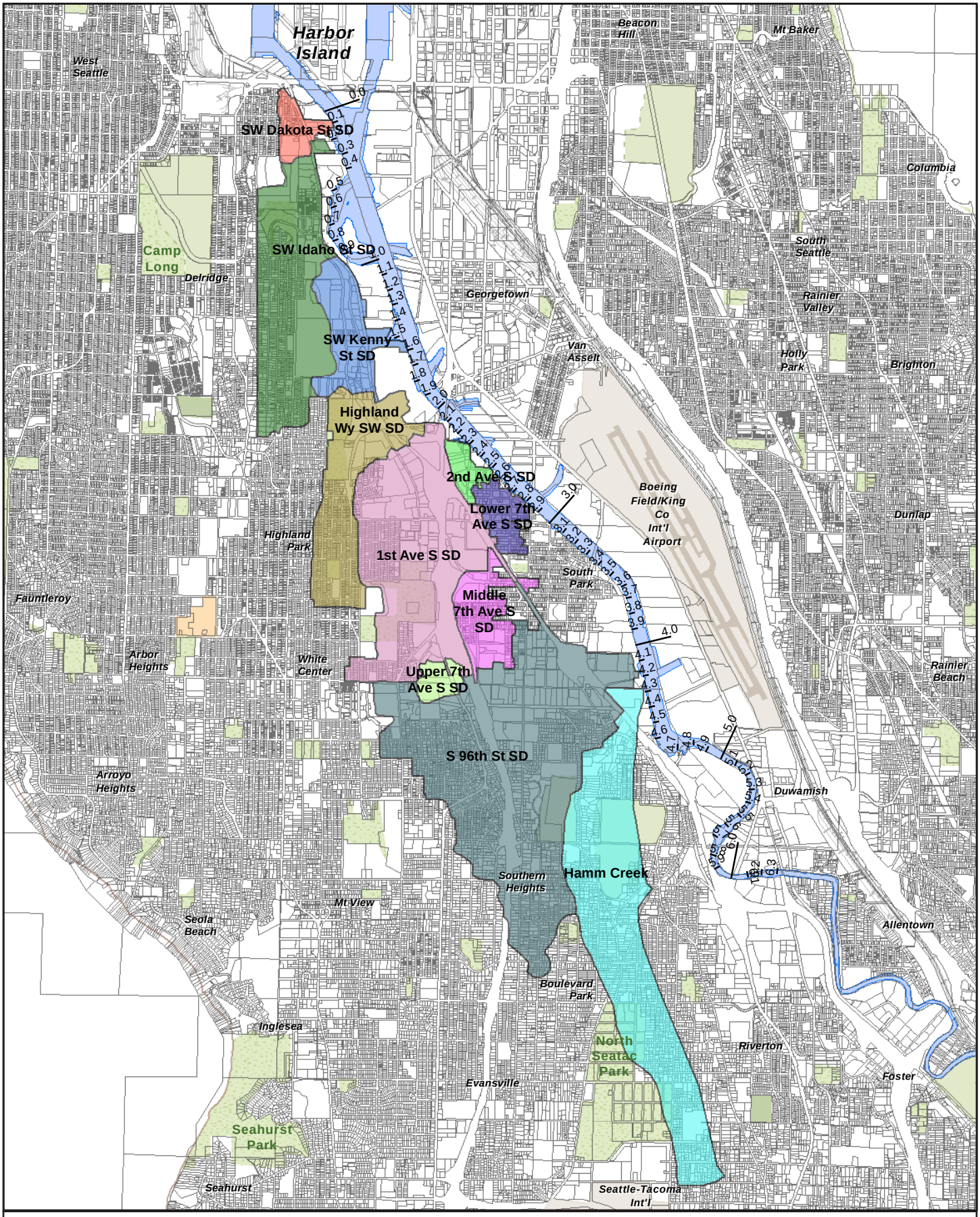


Figure 1. Lower Duwamish Waterway Source Control Areas

The source control area boundaries are an approximation. Final boundaries will be determined jointly by EPA and Ecology. The full extent of the drainage basins are not included on this map. Drainage basins leading to these areas will be defined in the future.

L. Delwiche SAIC, 2010



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N

Figure 2. Lower Duwamish Waterway Storm Drain Basins — West Side

0 2,800 5,600 Feet

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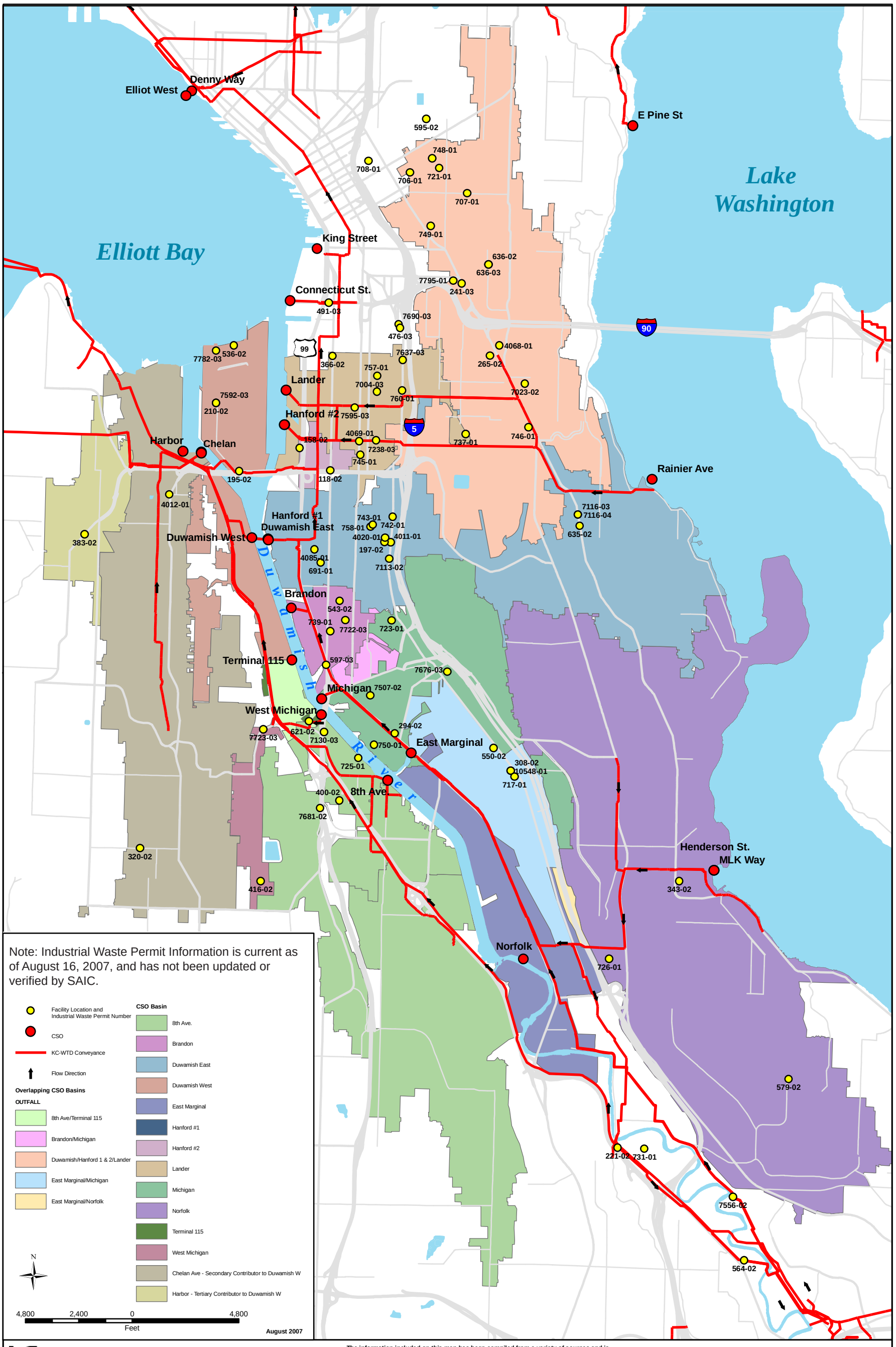

Note: Industrial Waste Permit Information is current as of August 16, 2007, and has not been updated or verified by SAIC.

Facility Location and Industrial Waste Permit Number

CSO

KC-WTD Conveyance

Flow Direction

Overlapping CSO Basins

OUTFALL

- 8th Ave/Terminal 115
- Brandon/Michigan
- Duwamish/Hanford 1 & 2/Lander
- East Marginal/Michigan
- East Marginal/Norfolk

CSO Basin

- 8th Ave.
- Brandon
- Duwamish East
- Duwamish West
- East Marginal
- Hanford #1
- Hanford #2
- Lander
- Michigan
- Norfolk
- Terminal 115
- West Michigan
- Chelan Ave - Secondary Contributor to Duwamish W
- Harbor - Tertiary Contributor to Duwamish W

N

4,800 2,400 0 4,800

Feet

August 2007

King County
Department of
Natural Resources and Parks
Wastewater Treatment Division

The information included on this map has been compiled from a variety of sources and is subject to change without notice. King County makes no representations or warranties, express or implied, as to accuracy, completeness, timeliness, or rights to the use of such information. This document is not intended for use as a survey product. King County shall not be liable for any general, special, indirect, incidential, or consequential damages including, but not limited to, lost revenues or lost profits resulting from the use or misue of the information contained on this map. Any sale of this map or information on this map is prohibited except by written permission of King County.

File Name: Q:\Projects\WTD/Projects\DiagDuam\Graphics\LDWCSOBasins.pdf - Alyssa Benson 08/16/07

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Source: King County 2007

Figure 3. Lower Duwamish Waterway Combined Sewer Overflow Basins

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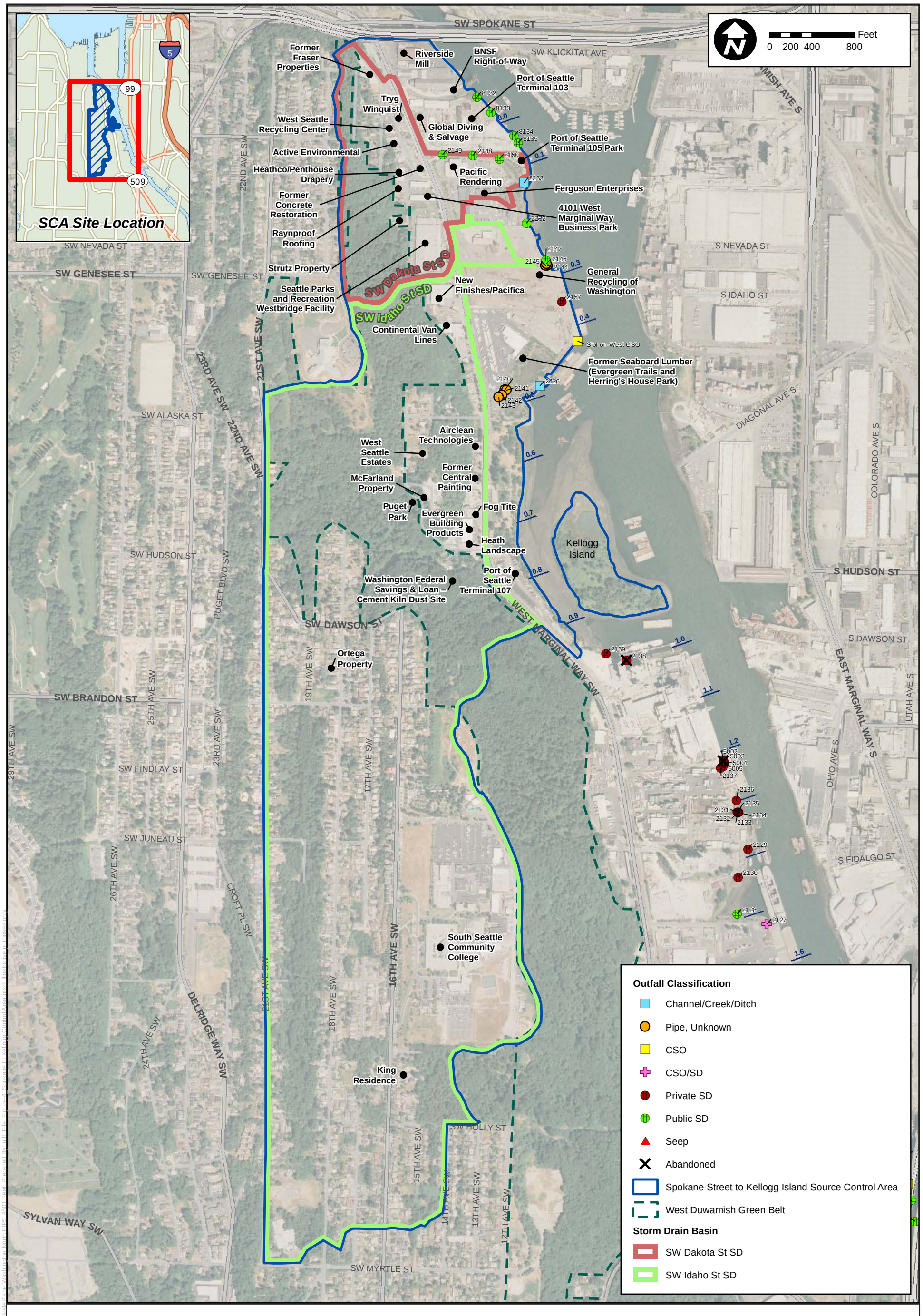

Figure 4. Spokane Street to Kellogg Island Source Control Area

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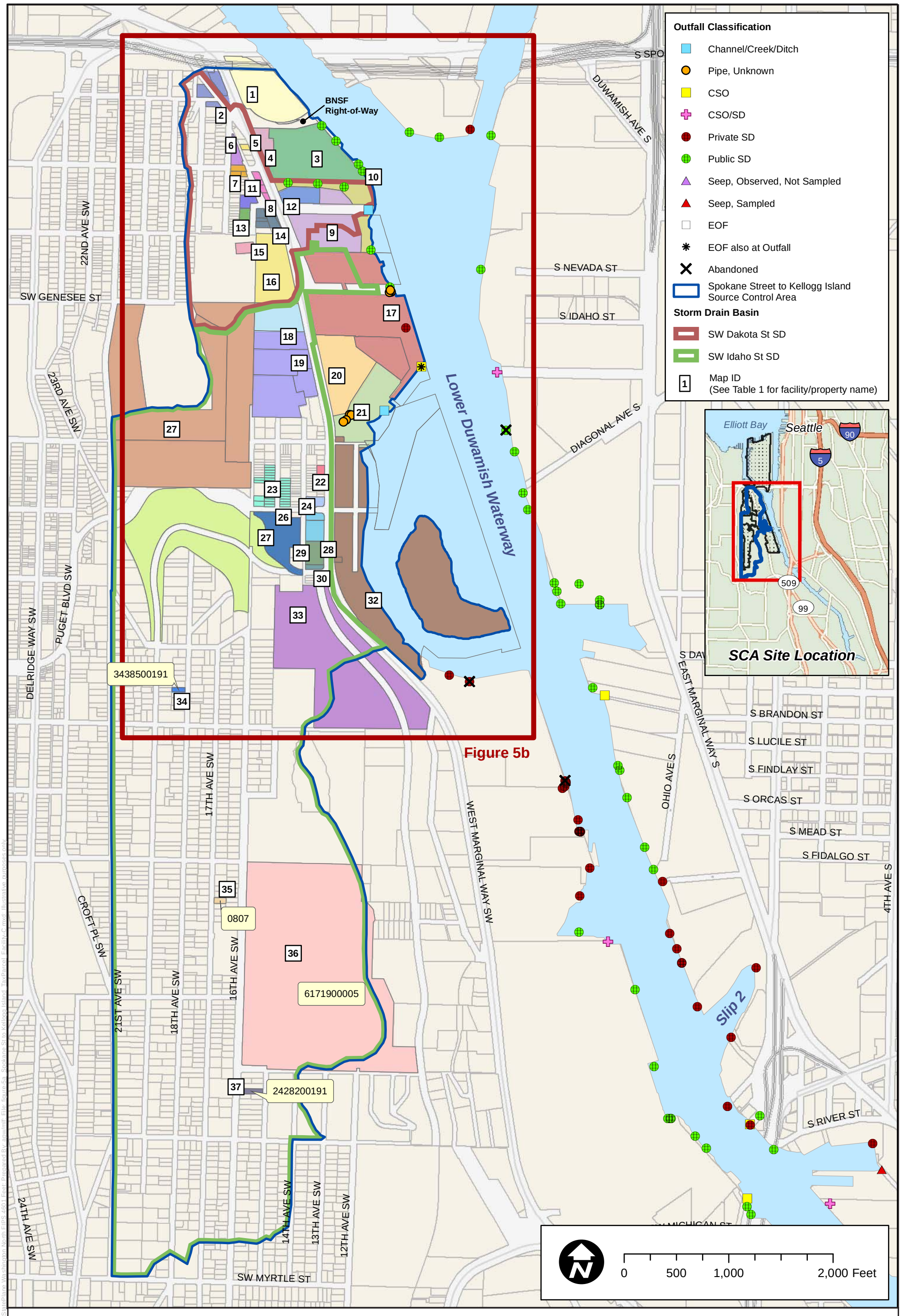

Figure 5b

Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet Prepared By: dpowitt File: figure5a_Spokane St to Kellogg Island_TaxParcel_Facility_Combo_illustrative purposes only

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Figure 5a. Tax Parcels for Properties with Ecology Facility/Site Identification Numbers in the Spokane Street to Kellogg Island Source Control Area

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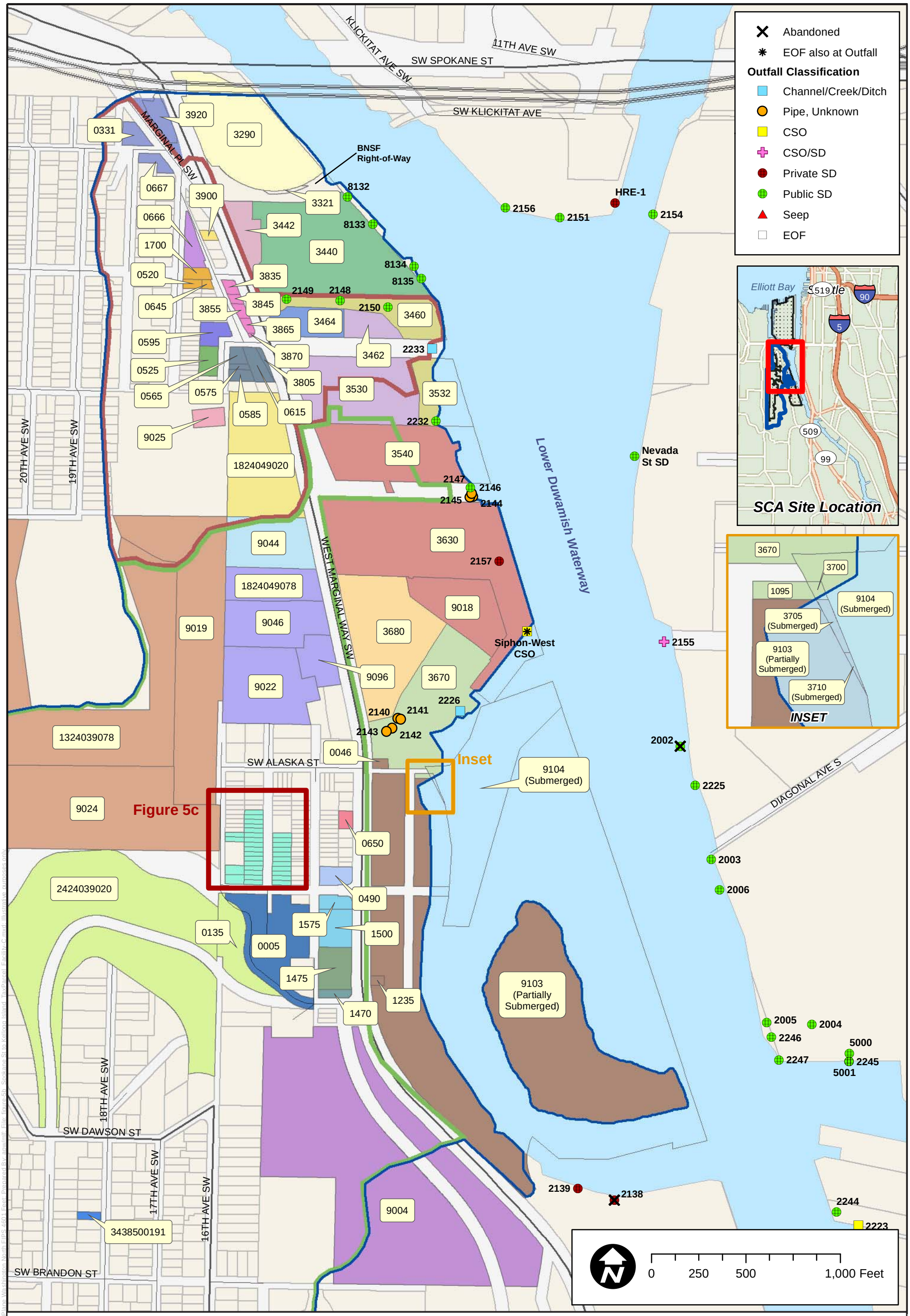

Figure 5b. Tax Parcels for Properties with Ecology Facility/Site Identification Numbers in the Northern Portion of the Spokane Street to Kellogg Island Source Control Area

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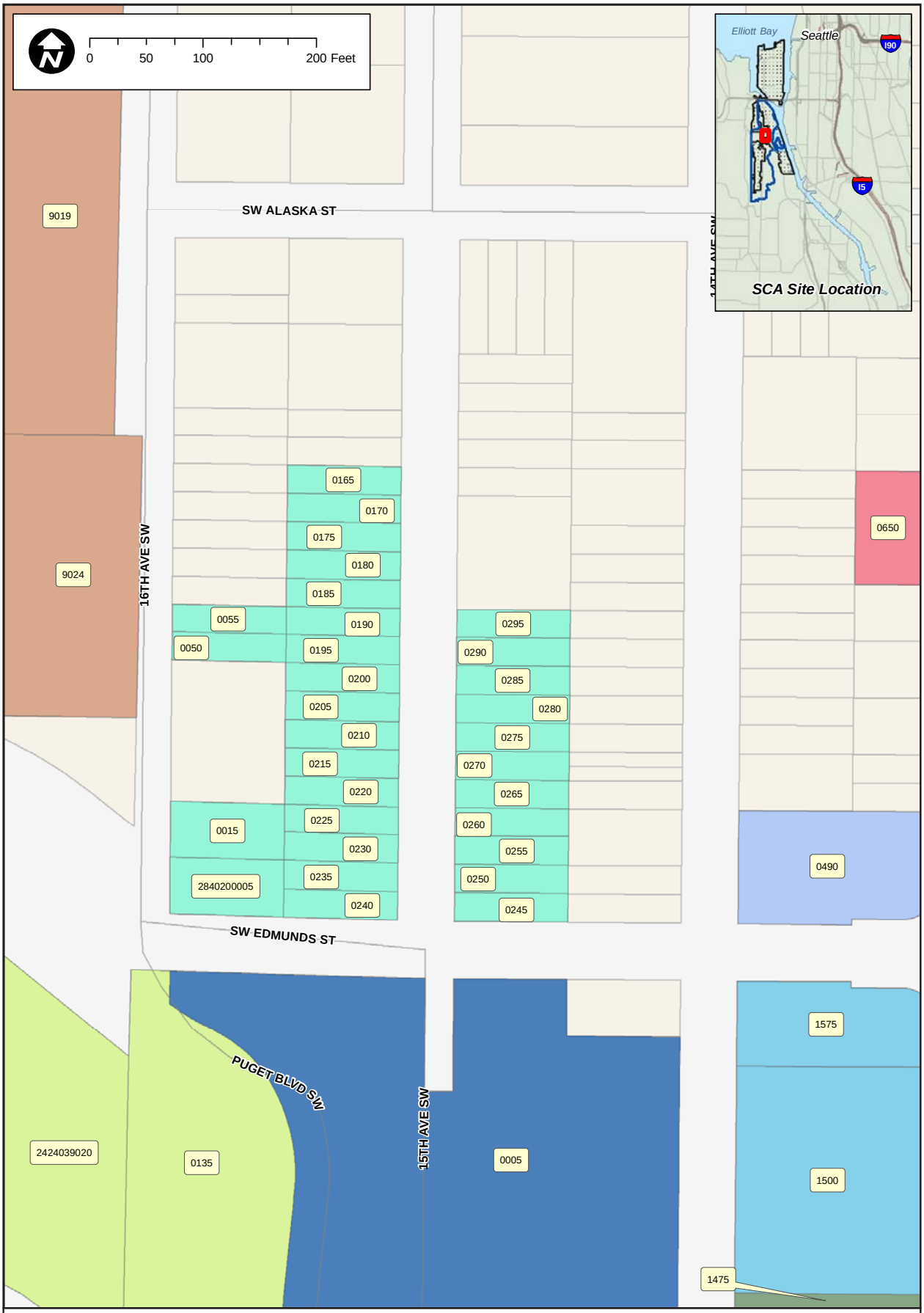

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Figure 5c. Tax Parcels for Properties with Ecology Facility/ Site Identification Numbers in the Spokane Street to Kellogg Island Source Control Area, West Seattle Estates

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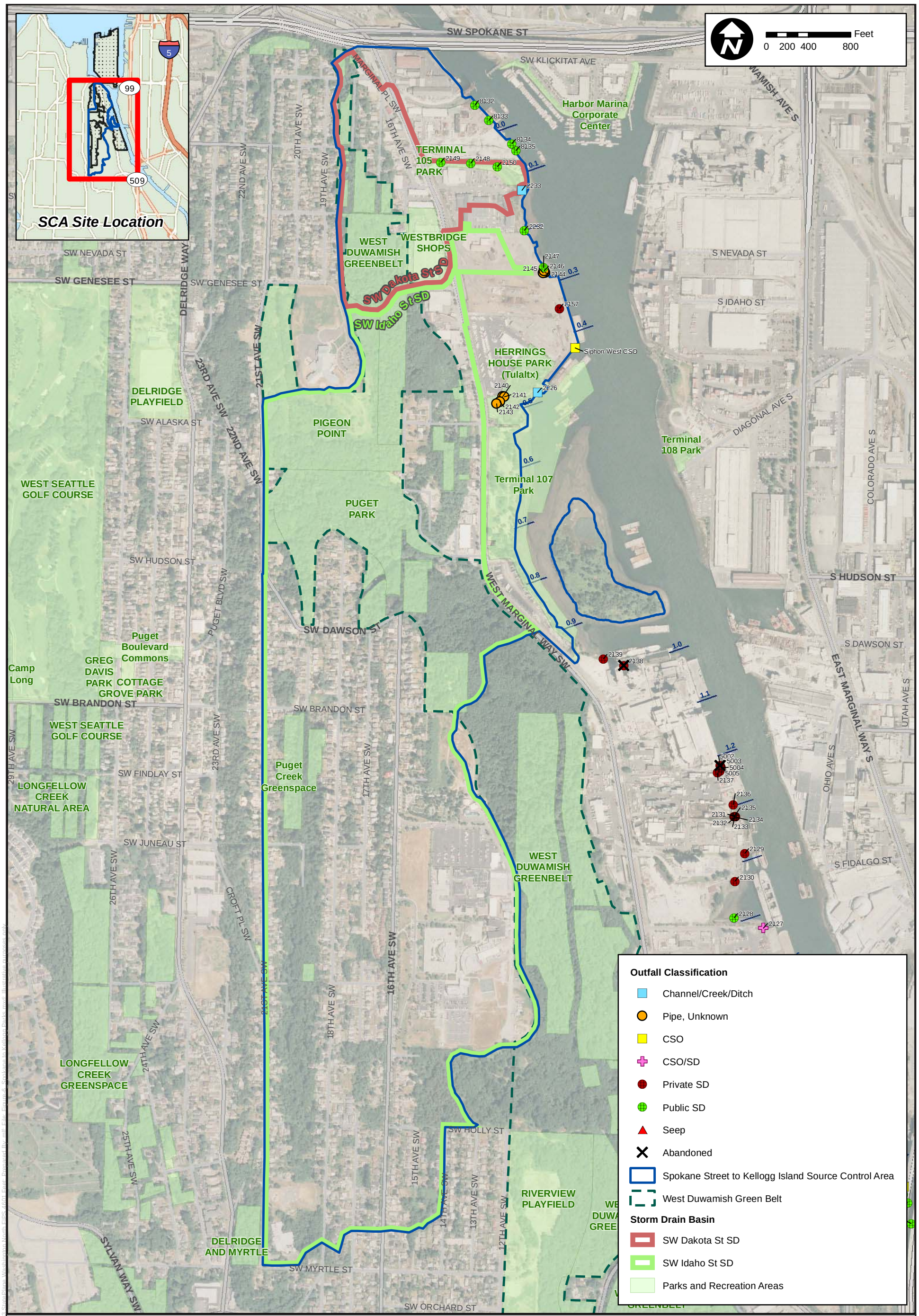

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Figure 6. Parks within the Spokane Street to Kellogg Island Source Control Area

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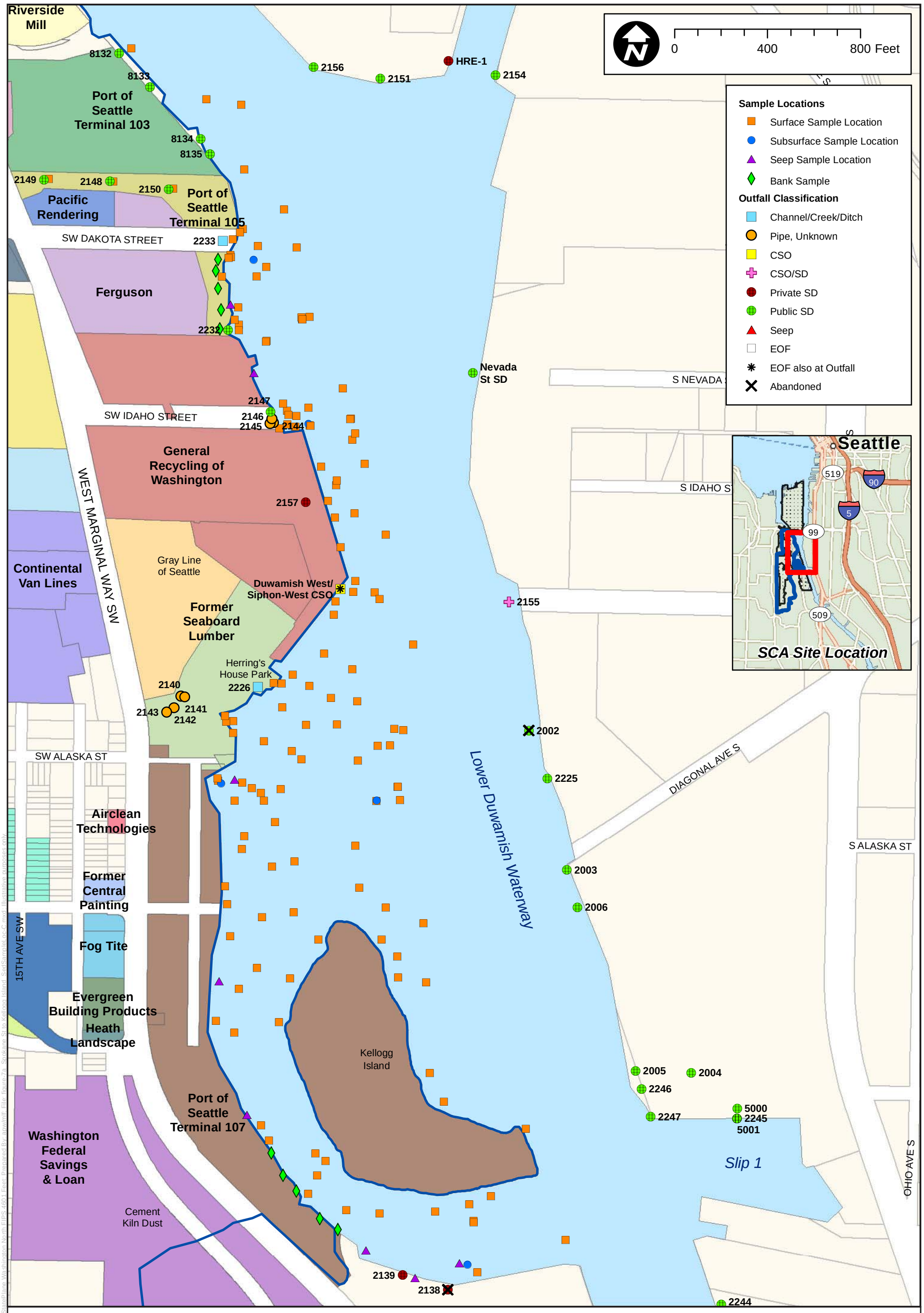

Figure 7a. Sediment, Seep, and Bank Soil Sample Locations Adjacent to Spokane Street to Kellogg Island Source Control Area

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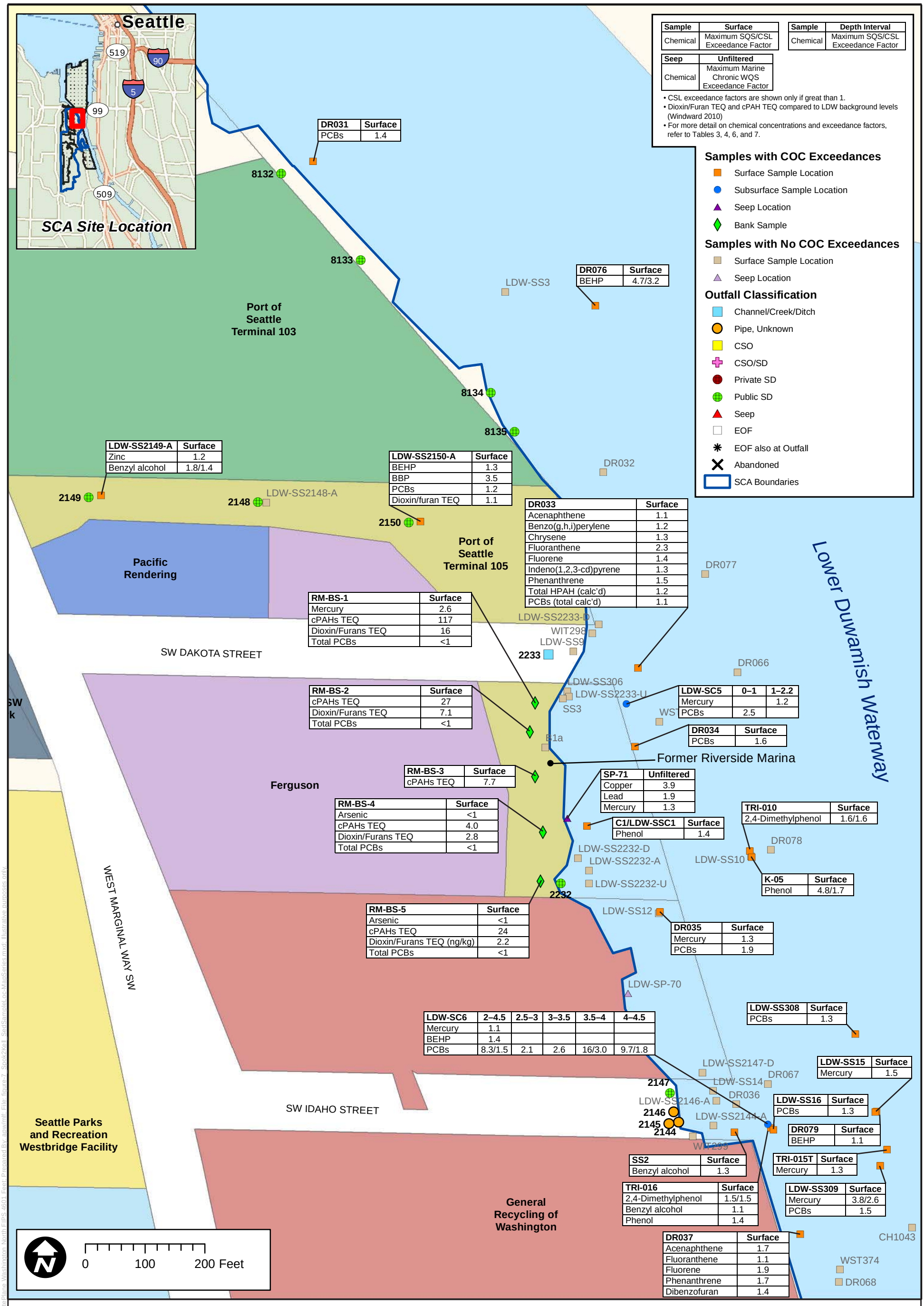
Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet Prepared By: anwhitf File: figure 7a_Spokane St to Kellogg Island_SedSampleLoc_Cmod_Illustrative purposes only



Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet Prepared By: jpowell File: Figure 7_SpokKell_SedSamples.mxd Illustrative purposes only.

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Figure 7b. Sediment, Seep, and Bank Soil Sample Locations Adjacent to Spokane Street to Kellogg Island Source Control Area (RM 0.0 to 0.3 West)

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Sample	Surface
Chemical	Maximum SQS/CSL Exceedance Factor

Sample	Depth Interval
Chemical	Maximum SQS/CSL Exceedance Factor

Seep	Unfiltered
Chemical	Maximum Marine Chronic WQS Exceedance Factor

- CSL exceedance factors are shown only if great than 1.
- Dioxin/Furan TEQ and cPAH TEQ compared to LDW background levels (Windward 2010)
- For more detail on chemical concentrations and exceedance factors, refer to Tables 3, 4, 6, and 7.

Samples with COC Exceedances

- Surface Sample Location
- Subsurface Sample Location
- Seep Location
- Bank Sample

Samples with No COC Exceedances

- Surface Sample Location
- Seep Location

Outfall Classification

- Channel/Creek/Ditch
- Pipe, Unknown
- CSO
- CSO/SD
- Private SD
- Public SD
- Seep
- EOF
- EOF also at Outfall
- Abandoned
- SCA Boundaries

LDW-SC6	2–4.5	2.5–3	3–3.5	3.5–4	4–4.5
Mercury	1.1				
BEHP	1.4				
PCBs	8.3/1.5	2.1	2.6	16/3.0	9.7/1.8

LDW-SS15	Surface
Mercury	1.5

LDW-SS16	Surface
PCBs	1.3

DR079	Surface
BEHP	1.1

TRI-015T	Surface
Mercury	1.3

LDW-SS309	Surface
Mercury	3.8/2.6
PCBs	1.5

SS2	Surface
Benzyl alcohol	1.3

TRI-016	Surface
2,4-Dimethylphenol	1.5/1.5
Benzyl alcohol	1.1
Phenol	1.4

DR037	Surface
Acenaphthene	1.7
Fluoranthene	1.1
Fluorene	1.9
Phenanthrene	1.7
Dibenzofuran	1.4

LDW-SS310	Surface
Mercury	4.4/3.1
PCBs	1.9

LDW-SS2157-A	Surface
Benzyl alcohol	5.1/4.0
Dioxin/furan TEQ	4.4

SS1	Surface
Zinc	1.3
Fluoranthene	1.2/1.5
BEHP	1.1
BBP	1.6

DR038	Surface
Fluoranthene	1.9
Phenanthrene	1.4
PCBs (total calc'd)	1.1

LDW-SSSWCSO-A	Surface
Benzyl alcohol	4.7/3.7

LDW-SSSWCSO-U	Surface
Fluoranthene	1.5
Phenanthrene	1.8
BEHP	1.2
Benzyl alcohol	4.2/3.3

LDW-SS507	Surface
Dioxin/furan TEQ	5.5

SPI-108	Surface
2,4-Dimethylphenol	1.8/1.8
PCBs	2.4

DR040	Surface
Chrysene	1.5
Fluoranthene	1.7/1.2
PCBs (total calc'd)	6.0

WST370	Surface
PCBs	1.5

LDW-SS509	Surface
Benzo(a)anthracene	1.4/1.1
Benzo(a)pyrene	1.3
Benzo(g,h,i)perylene	2.1/1.9
Chrysene	1.9
Dibenzo(a,h)anthracene	2.2
Fluoranthene	2.4/1.6
Indeno(1,2,3-cd)pyrene	2.0/1.7
Phenanthrene	1.5
Pyrene	1.5/1.2
Total HPAH (calc'd)	1.7/1.2
PCBs (total calc'd)	4.3

LDW-SC11	0.0-0.8
Lead	1.4/1.2
Mercury	1.6/1.1
Zinc	1.2
Benzo(a)pyrene	1.9
Benzo(b)fluoranthene	1.3/1.1
Benzo(k)fluoranthene	1.1
Benzofluoranthenes (total-calc'd)	2.4/2.1
Chrysene	3.1/1.5
Fluoranthene	4.8/3.2
Indeno(1,2,3-cd)pyrene	1.1
Pyrene	2.6/2.0
Total HPAH (calc'd)	2.9/2.0
N-Nitroso-di-n-propylamine	1.3
PCBs (total calc'd)	23/3.0

SD-10	Surface
Zinc	1.1

203	Surface
Benzoic acid	8.2/8.2
PCB	1.2

LDW-SS24	Surface
Mercury	1.5/1.1
Zinc	1.1
Benzyl alcohol	12/9.2
Benzo(a)anthracene	2.0/1.6
Benzo(a)pyrene	1.3
Benzo(g,h,i)perylene	1.6/1.5
Benzofluoranthenes (total-calc'd)	1.2/1.1
Chrysene	2.6/1.3
Dibenzo(a,h)anthracene	1.5
Fluoranthene	3.1/2.1
Indeno(1,2,3-cd)pyrene	2.0/1.7
Phenanthrene	1.3
Pyrene	1.7/1.3
Total HPAH (calc'd)	2.0/1.4
PCBs (total calc'd)	2.2

LDW-SS311	Surface
Chrysene	1.3
Fluoranthene	2.3/1.6
Pyrene	1.1
Total HPAH (calc'd)	1.2
PCBs (total calc'd)	2.8

LDW-SC12	0–2	1.5–2	2–2.5	2.5–3	2–4	3.5–4	4–6.6
Mercury					1.1		1.8/1.3
PCBs	1.5	1.3	7.4/1.4	3.1	13/2.4	4.1	1.8

SP-69	Unfiltered
Copper	2.6

WIT282	Surface
PCBs	5.9

DR042	Surface
PCBs	1.4

DR044	Surface
Mercury	1.2
Chrysene	2.0
Fluoranthene	6.9
Phenanthrene	1.4
Total HPAH (calc'd)	2.5
PCBs (total calc'd)	7.3/1.3

General Recycling of Washington

Former Seaboard Lumber

Gray Line of Seattle

Duwamish West/ Siphon-West CSO

Herring's House Park

Lower Duwamish Waterway

WEST MARGINAL WAY SW

Seattle

SCA Site Location

519 90 5 99 509

2147 2146 2145 2144 2157 2226

LDW-SS2147-D DR067 LDW-SS14 LDW-SS2146-A DR036 LDW-SS2144-A WIT299 CH1043 WST374 DR068 DR080 LDW-SS19 DR069 DR039 SD-6 SD-7 SD-17 SD-5 SD-8 WST358 SD-1 SD-4 SD-9 DR041 KI-1 DR070 LDW-SS23 WST371 WST359 SD-2 SD-11 WST372 KI-2 WQAKELL KI-3

0 100 200 Feet

Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet Prepared By: gpw/mlf File: figure 7_Spok2Kell_SedSampleLoc_MapSeries.mxd Illustrative purposes only

Figure 7c. Sediment, Seep, and Bank Soil Sample Locations Adjacent to Spokane Street to Kellogg Island Source Control Area (RM 0.3 to 0.5 West)

DEPARTMENT OF ECOLOGY State of Washington

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Sample	Surface
Chemical	Maximum SQS/CSL Exceedance Factor

Sample	Depth Interval
Chemical	Maximum SQS/CSL Exceedance Factor

Seep	Unfiltered
Chemical	Maximum Marine Chronic WQS Exceedance Factor

- CSL exceedance factors are shown only if great than 1.
- Dioxin/Furan TEQ and cPAH TEQ compared to LDW background levels (Windward 2010)
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- Surface Sample Location
- Subsurface Sample Location
- Seep Location
- Bank Sample

Samples with No COC Exceedances

- Surface Sample Location
- Seep Location

Outfall Classification

- Channel/Creek/Ditch
- Pipe, Unknown
- CSO
- CSO/SD
- Private SD
- Public SD
- Seep
- EOF
- EOF also at Outfall
- Abandoned
- SCA Boundaries

DR044	Surface
Mercury	1.2
Chrysene	2.0
Fluoranthene	6.9
Phenanthrene	1.4
Total HPAH (calc'd)	2.5
PCBs (total calc'd)	7.3/1.3

LDW-SC12	0–2	1.5–2	2–2.5	2.5–3	2–4	3.5–4	4–6.6
Mercury					1.1		1.8/1.3
PCBs	1.5	1.3	7.4/1.4	3.1	13/2.4	4.1	1.8

WIT282	Surface
PCBs	5.9

DR042	Surface
PCBs	1.4

LDW-SS312	Surface
Mercury	1.5
Benzo(a)anthracene	1.7/1.4
Benzo(a)pyrene	2.0/1.1
Benzo(g,h,i)perylene	2.4/2.2
Benzofluoranthenes (total calc'd)	1.5/1.3
Chrysene	2.1/1.1
Dibenzo(a,h)anthracene	1.4
Fluoranthene	2.9/2.0
Indeno(1,2,3-cd)pyrene	2.7/2.3
Phenanthrene	2.3
Pyrene	1.8/1.5
Total HPAH (calc'd)	2.2/1.5
PCBs (total calc'd)	7.8

DR043	Surface
BBP	1.6
PCBs	2.1

WIT283	Surface
PCBs	1.6

C2-1	Surface
Phenol	1.1

WIT286	Surface
PCBs	1.5

WIT287	Surface
PCBs	1.5

WIT288	Surface
PCBs	1.7

LDW-SS28	Surface
Dioxin/furan TEQ	6.0

C2-2	Surface
4-Methylphenol	2.4/2.4

T107-BS-5	Surface
Arsenic	5.7
Lead	3.6
Zinc	6.0

DR047	Surface
Fluoranthene	1.1
Phenol	1.8

T107-BS-4	Surface
Arsenic	5.5
Lead	2.2
Zinc	3.5

WIT290	Surface
PCBs	2.7

T107-BS-3	Surface
Arsenic	3.3
Lead	1.4
Zinc	1.5
Dioxin/Furans TEQ	1.2

WIT291	Surface
PCBs	3.2

LDW-SS514	Surface
Dioxin/furan TEQ	7.0

T107-BS-2	Surface
Arsenic	5.4
Lead	2.5
Zinc	3.1

SP-64	Unfiltered
PCBs	15

LDW-SC19	1–2	2–4	4–6	6–7
PCBs	1.1	1.3	2.9	13/2.4

T107-BS-1	Surface
Arsenic	3.5
Lead	1.6
Zinc	1.1

LDW-SS36	Surface
Dioxin/furan TEQ	13

SD-10, WST371, WST359, LDW-SS509, LDW-SS24, LDW-SC11, SP-69, LDW-SS311, SD-2, SD-11, WST372, KI-2, WQAKELL, KI-3, SD-12, SD-1, WIT292, SD-13, WIT293, KI-4, SD-14, WST363, LDW-SS313, WIT294, SD-15, LDW-SP-68, LDW-SS314, B3a, DR046, DR045, Kellogg Island, WIT295, Port of Seattle Terminal 107, LDW-SP-67, LDW-SS29, WIT296, WIT289, B2a, LDW-SS33, WIT297, LDW-SS34, WST366, WST367, DR048, WST368, LDW-SP-66, 2139, LDW-SP-65, 2138, Lower Duwamish Waterway

Seattle, 519, 90, 5, 99, 509, SCA Site Location

0 100 200 Feet

Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet Prepared by: anwinif File: figure 7 - SpokKell - SedSampleLoc-MapSeries.mxd Illustrative purposes only

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Figure 7d. Sediment, Seep, and Bank Soil Sample Locations Adjacent to Spokane Street to Kellogg Island Source Control Area (RM 0.5 to 1.0 West)

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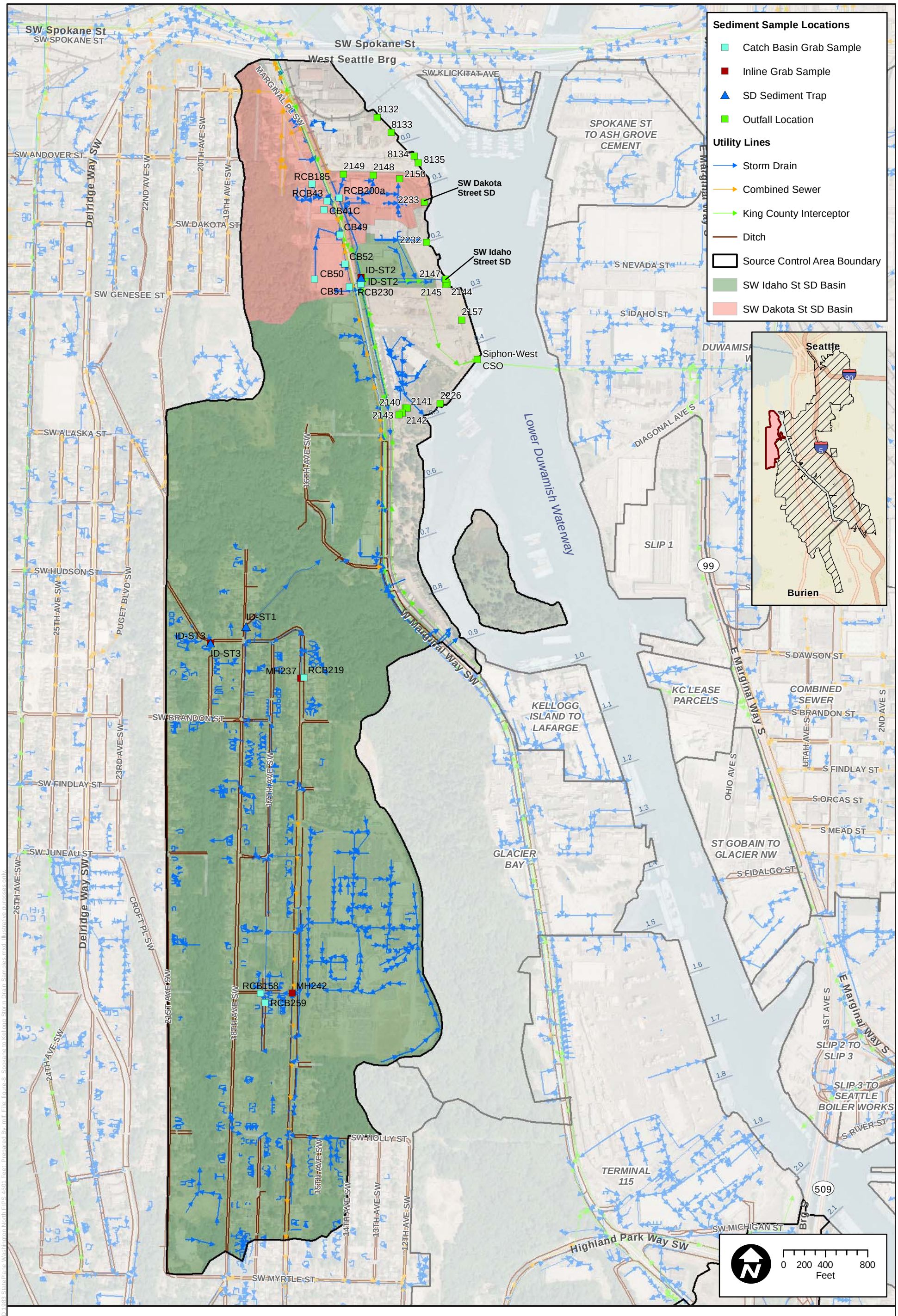

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Figure 8. Storm Drain Sample Locations
Spokane Street to Kellogg Island Source Control Area

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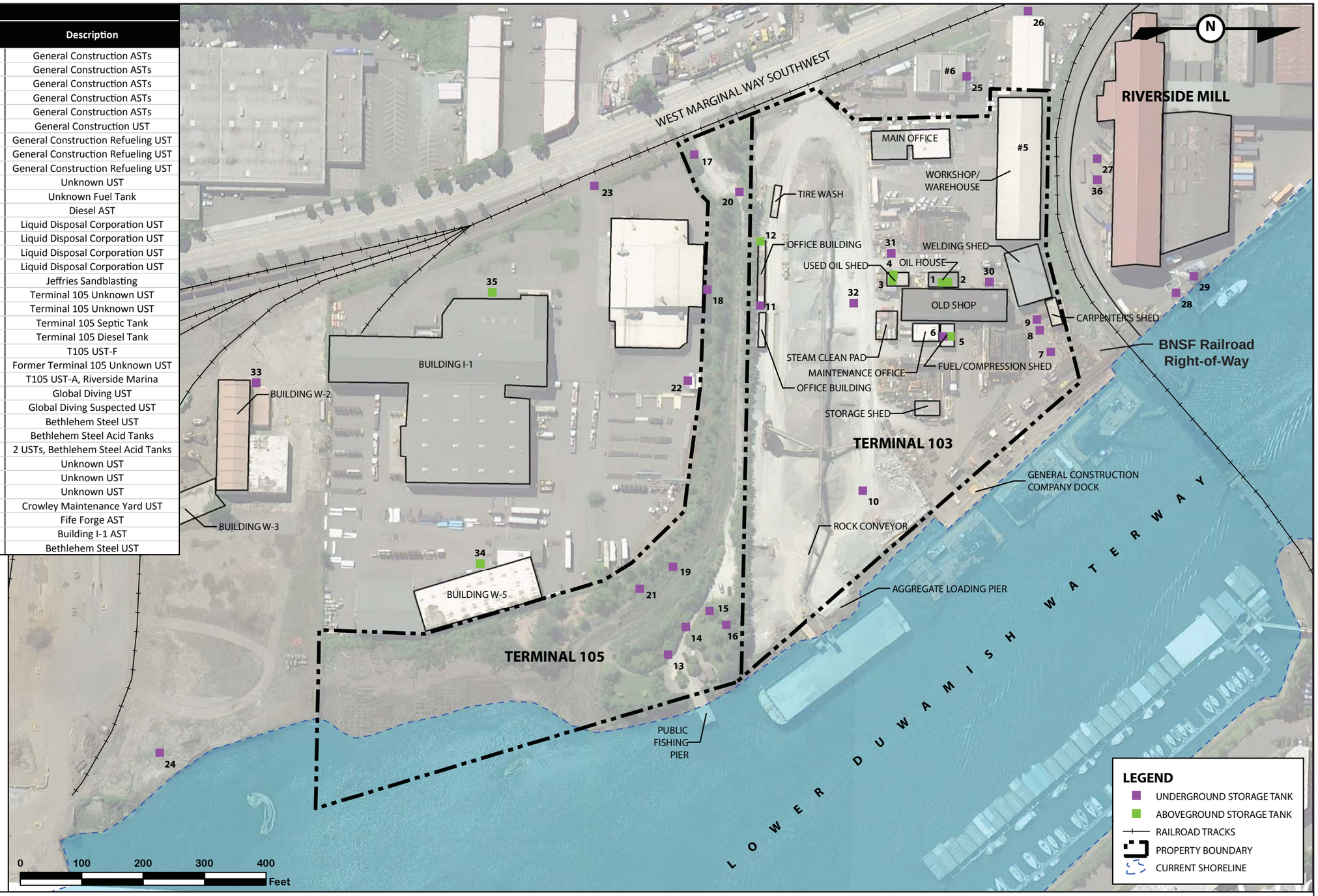
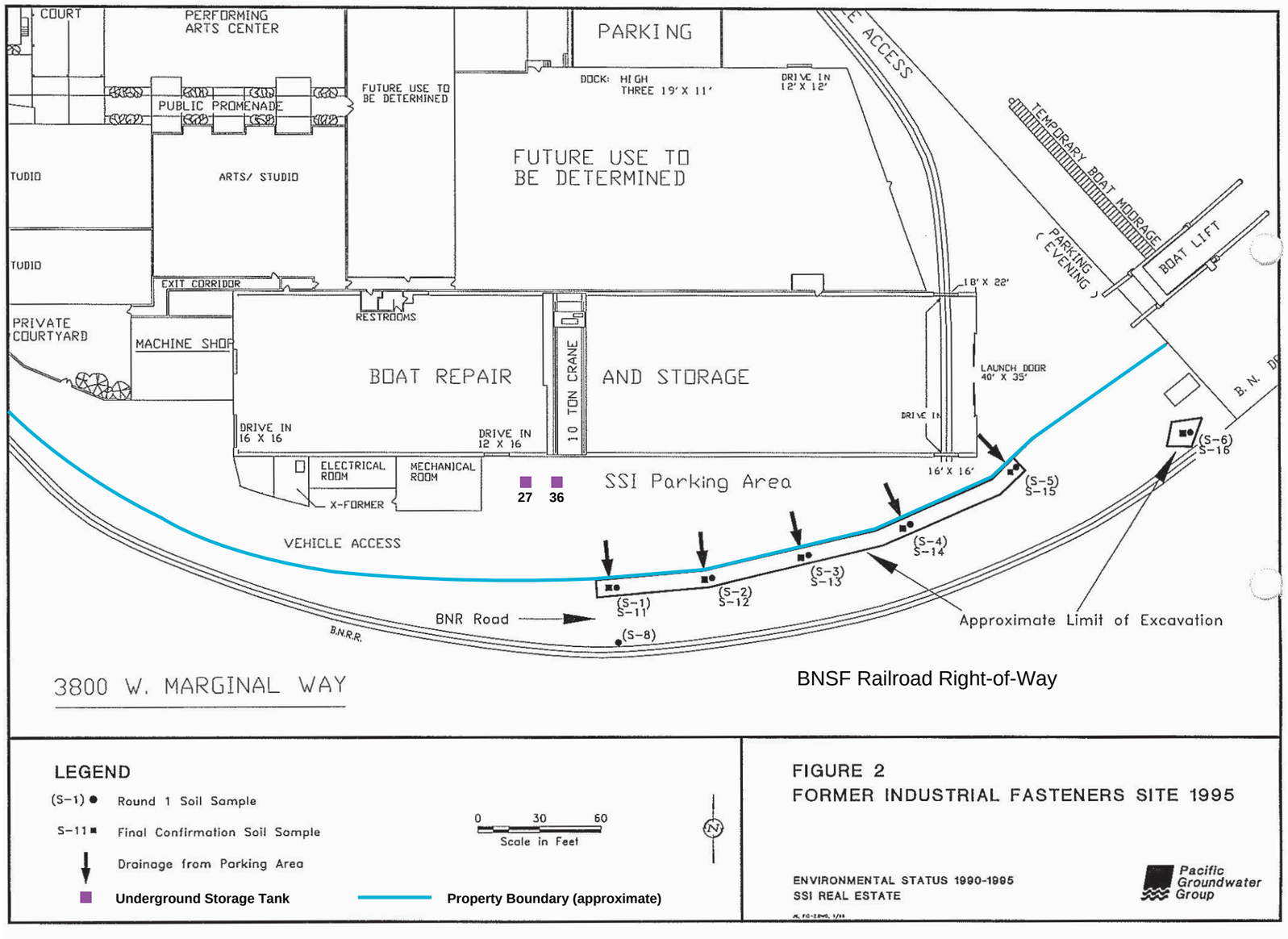
Tank Identification				
Tank #	Contents	Capacity (Gallons)	Status	Description
1	Motor Oil	500	Active	General Construction ASTs
2	Hydraulic Oil	500	Active	General Construction ASTs
3	Used Oil	600	Active	General Construction ASTs
4	Used Antifreeze	200	Active	General Construction ASTs
5	Diesel	500	Active	General Construction ASTs
6	Heating Oil	500	Removed	General Construction UST
7	Diesel	10,000	Removed	General Construction Refueling UST
8	Gasoline	600	Removed	General Construction Refueling UST
9	Gasoline	6,000	Removed	General Construction Refueling UST
10	Unknown	Unknown	Removed	Unknown UST
11	Fuel Oil	Unknown	Removed	Unknown Fuel Tank
12	Diesel	2,000	Removed	Diesel AST
13	Waste Oil	8,000	Unknown	Liquid Disposal Corporation UST
14	Waste Oil	8,000	Unknown	Liquid Disposal Corporation UST
15	Gasoline	1,000	Unknown	Liquid Disposal Corporation UST
16	Gasoline	1,000	Unknown	Liquid Disposal Corporation UST
17	Unknown	500	Closed in Place	Jeffries Sandblasting
18	Heating Oil	300	Removed	Terminal 105 Unknown UST
19	Unknown	200	Removed	Terminal 105 Unknown UST
20	Septic	300	Removed	Terminal 105 Septic Tank
21	Diesel	2,000	Removed	Terminal 105 Diesel Tank
22	Diesel	1,200	Removed	T105 UST-F
23	Unknown	300	Removed	Former Terminal 105 Unknown UST
24	Gasoline	2,000	Removed	T105 UST-A, Riverside Marina
25	Heating Oil	Unknown	Removed	Global Diving UST
26	Unknown	Unknown	Unknown	Global Diving Suspected UST
27	Diesel	8,000	Removed	Bethlehem Steel UST
28	Acid	Unknown	Removed	Bethlehem Steel Acid Tanks
29	Waste Acid	Unknown	Removed	2 USTs, Bethlehem Steel Acid Tanks
30	Heating Oil	Unknown	Unknown	Unknown UST
31	Unknown	Unknown	Unknown	Unknown UST
32	Unknown	Unknown	Unknown	Unknown UST
33	Waste Oil	600	Unknown	Crowley Maintenance Yard UST
34	Diesel	180	Unknown	Fife Forge AST
35	Unknown	Unknown	Unknown	Building I-1 AST
36	Cooling Oil	4,000	Removed	Bethlehem Steel UST



Sources: Olympus 1993; SoundEarth 2011a,b

Figure 9. Riverside Mill, Terminal 103 and 105 Storage Tanks



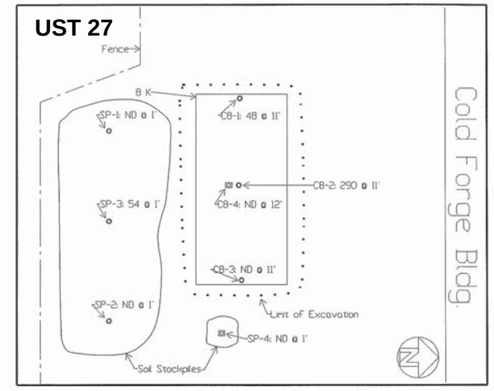


Figure 2
8/93

SP-1 Stockpile Soil Sample

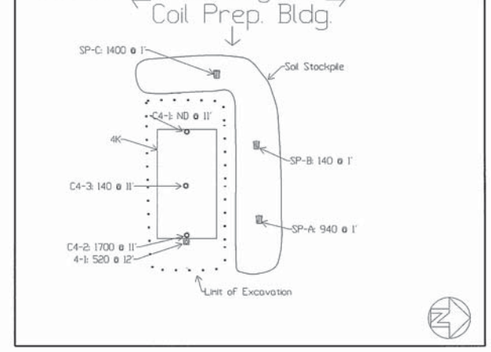


Figure 3
8/93

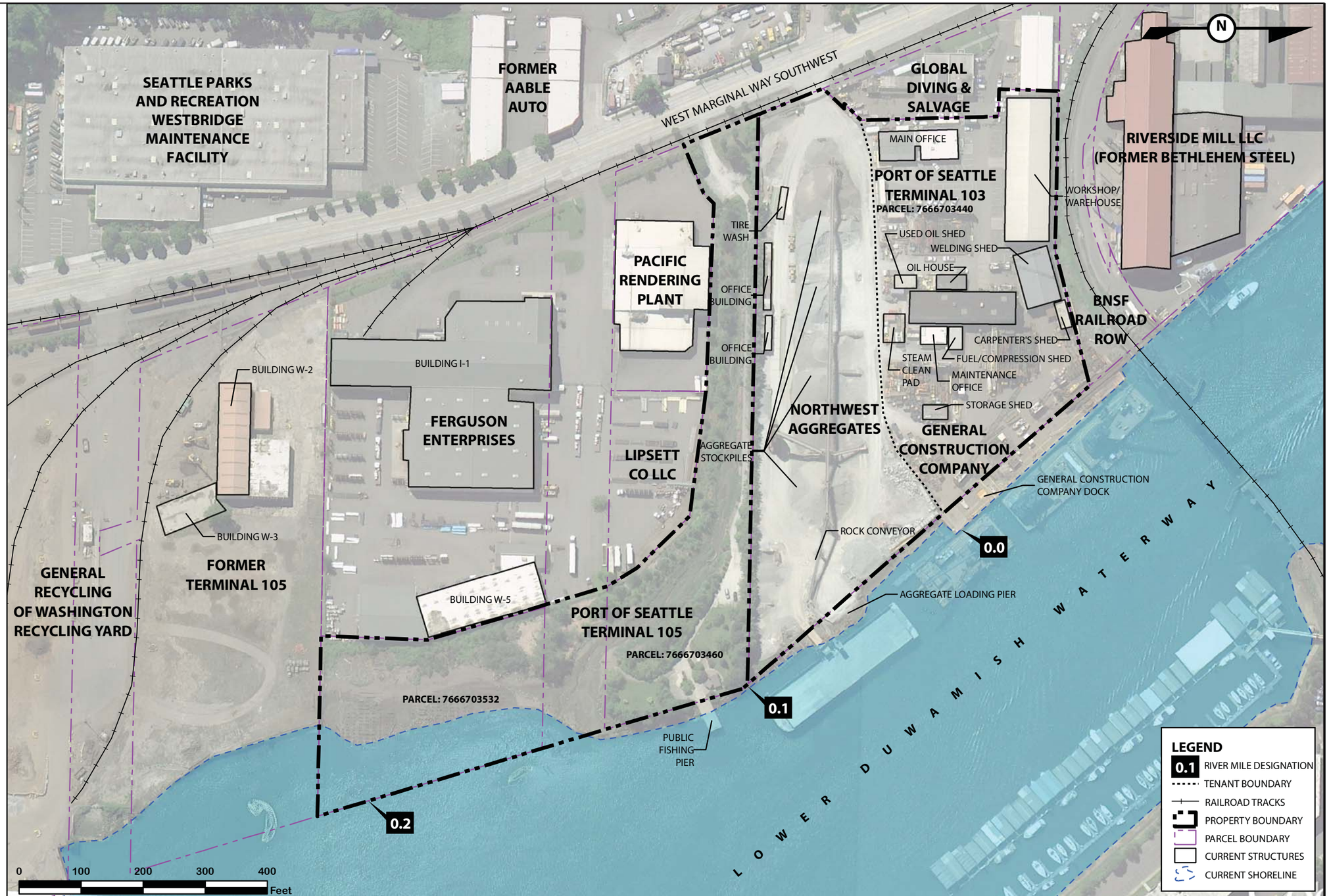
SP-A Stockpile Soil Sample

DEPARTMENT OF ECOLOGY
State of Washington

Figure 10. Environmental Investigations
Riverside Mill and BNSF Railroad Right-of-Way

Sources: Olympus 1993; PGG 1996

SAIC® From Science to Solutions

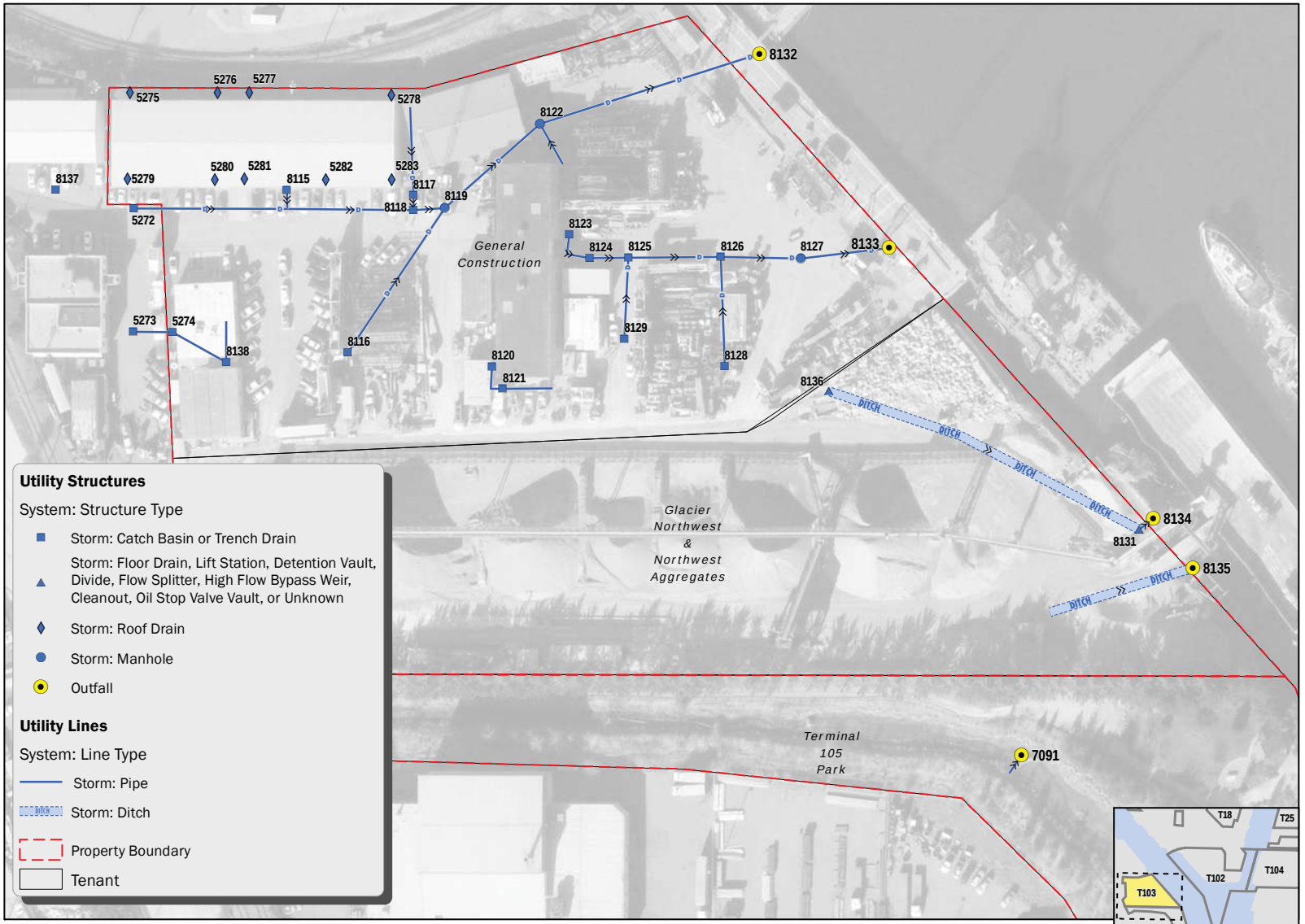


Source: SoundEarth 2011a,b

DEPARTMENT OF ECOLOGY State of Washington

Figure 11. Terminal 103 and Terminal 105 Current Features

SAIC® From Science to Solutions



Terminal 103

Stormwater Network Map

THIS AS-BUILT DRAWING WAS CONSOLIDATED FROM MULTIPLE SOURCES, TO BE USED FOR REFERENCE ONLY. SITE VERIFICATION IS ADVISED.

Map Export Date: 8/10/2012

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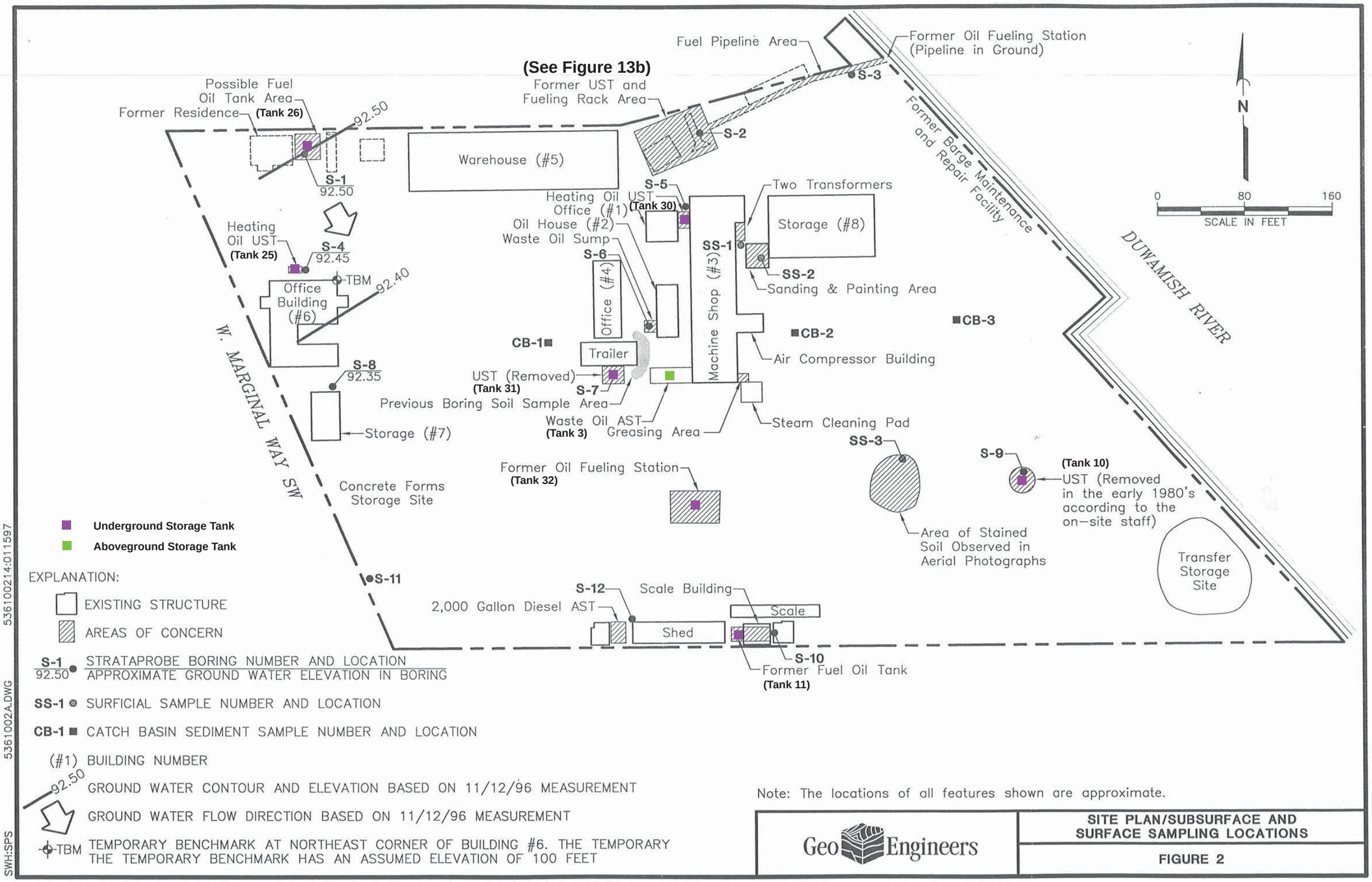
State of Washington

Figure 12. Terminal 103 Facility Storm Drain Plan

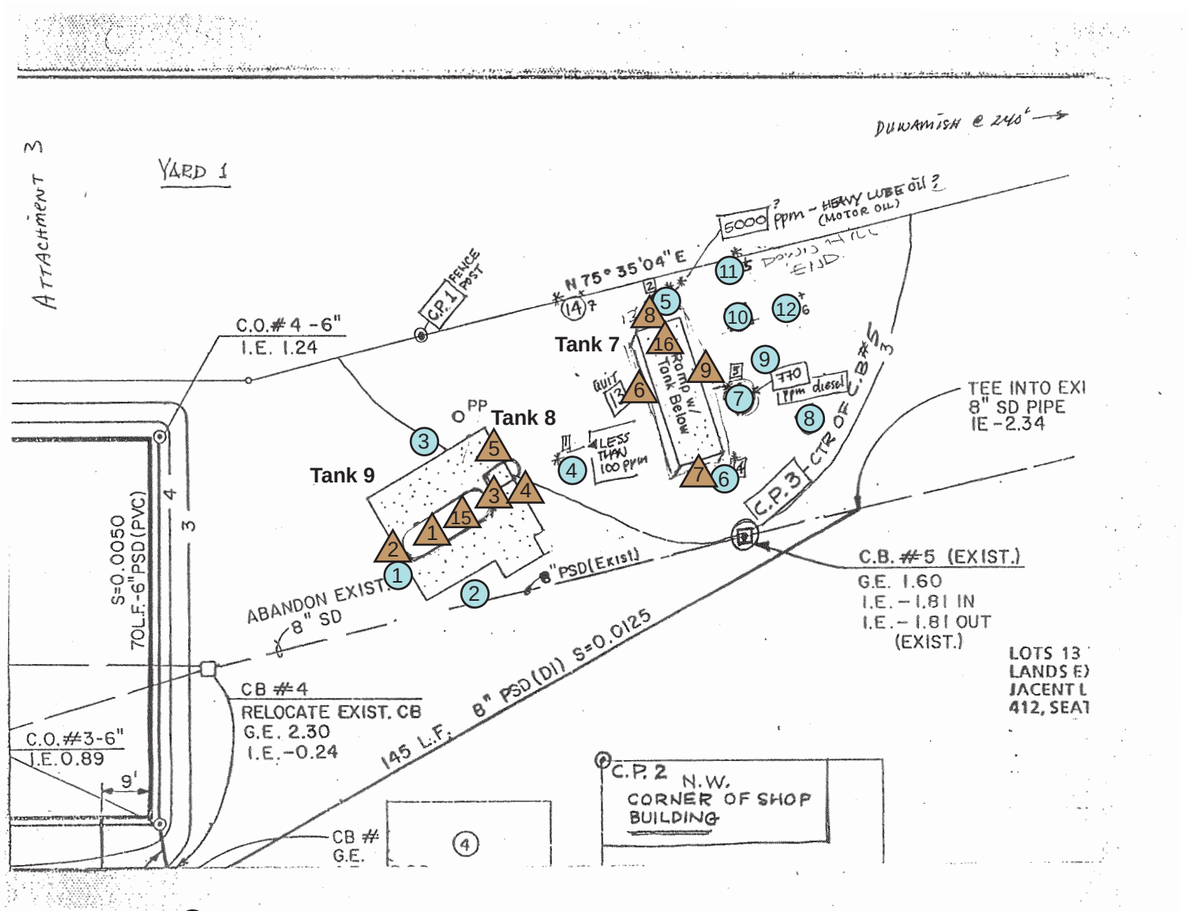
SAIC® From Science to Solutions



Source: GeoEngineers 1997

Figure 13a. Environmental Investigations
Terminal 103

Pre-Removal Assessment



1 Pre-Removal Boring Location

1 Confirmation Soil Sample Location

Post-Removal Assessment

223-02-CO-AS-TI*202RE

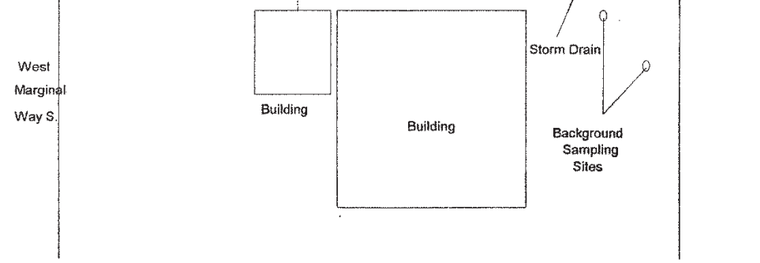
Phone (206) 624-9843
Fax No. (206) 624-9766

Coastal Tank Cleaning, Inc.

3801 7th Avenue South, Seattle, Washington 98108

Attachment 2

SITE MAP



Map notes:

Map not to scale.
Dotted lines indicate stock piles .....
Dashed lines indicate area of excavation - - - - - - -
Numbers indicate sampling locations 1, 2, 3, etc...
15 & 16 are water samples from beneath tanks

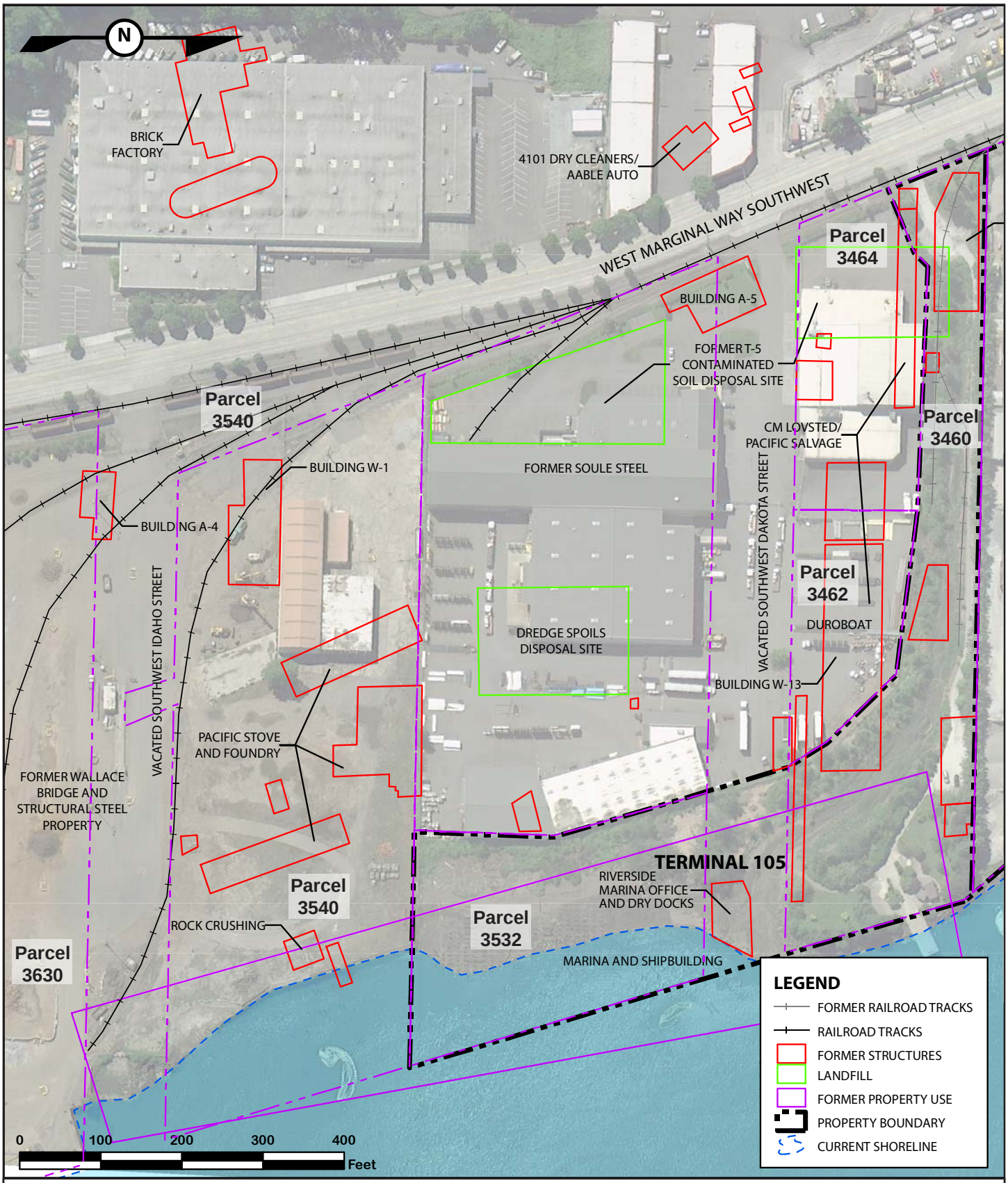
1 Confirmation Soil Sample Location

DEPARTMENT OF ECOLOGY
State of Washington

Figure 13b. Terminal 103 Pre-Removal and Post-Removal Environmental Assessments
Tanks 7, 8, and 9

Source: Coastal Tank Cleaning 1994

SAIC® From Science to Solutions



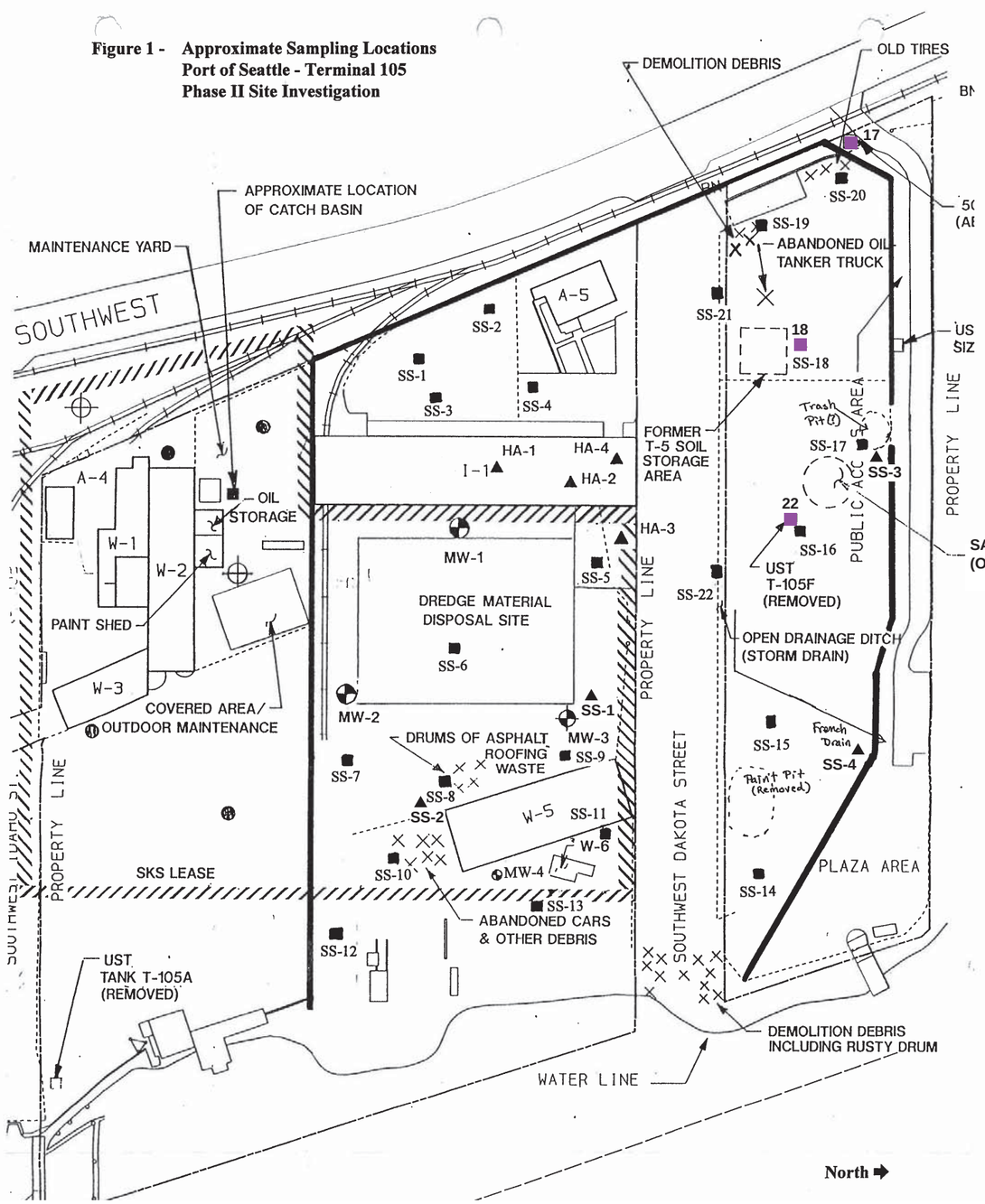
Source: SoundEarth 2011b

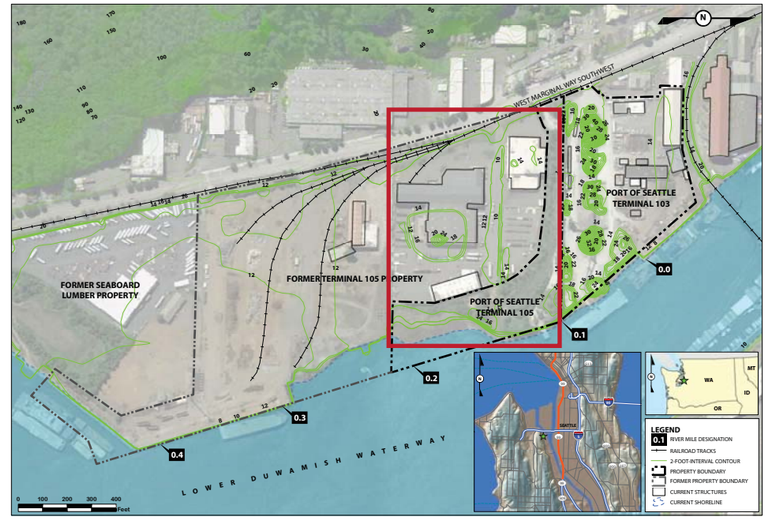
DEPARTMENT OF ECOLOGY
State of Washington

Figure 14. Terminal 105 Historical Features

SAIC
From Science to Solutions

Figure 1 - Approximate Sampling Locations
Port of Seattle - Terminal 105
Phase II Site Investigation





LEGEND

- **Underground Storage Tank**

Sources: Kennedy/Jenks 1991b; Port of Seattle 1993a; EcoChem 1997

Figure 15. Environmental Investigations
Terminal 105 — Northern Portion

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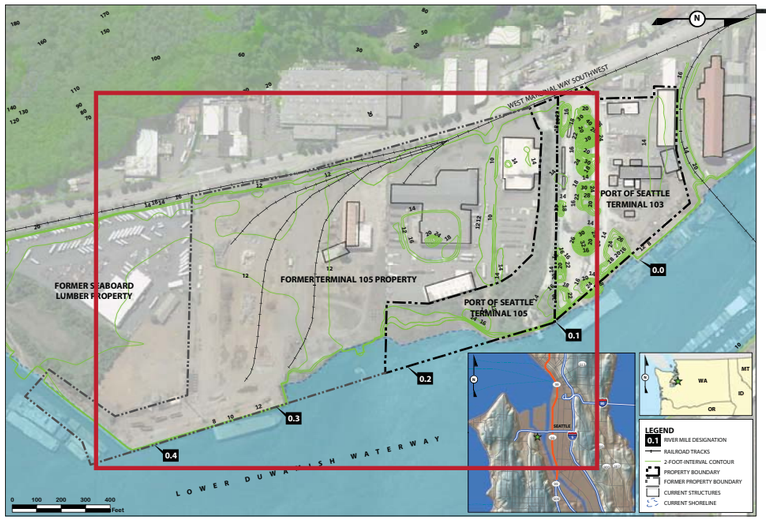


LEGEND

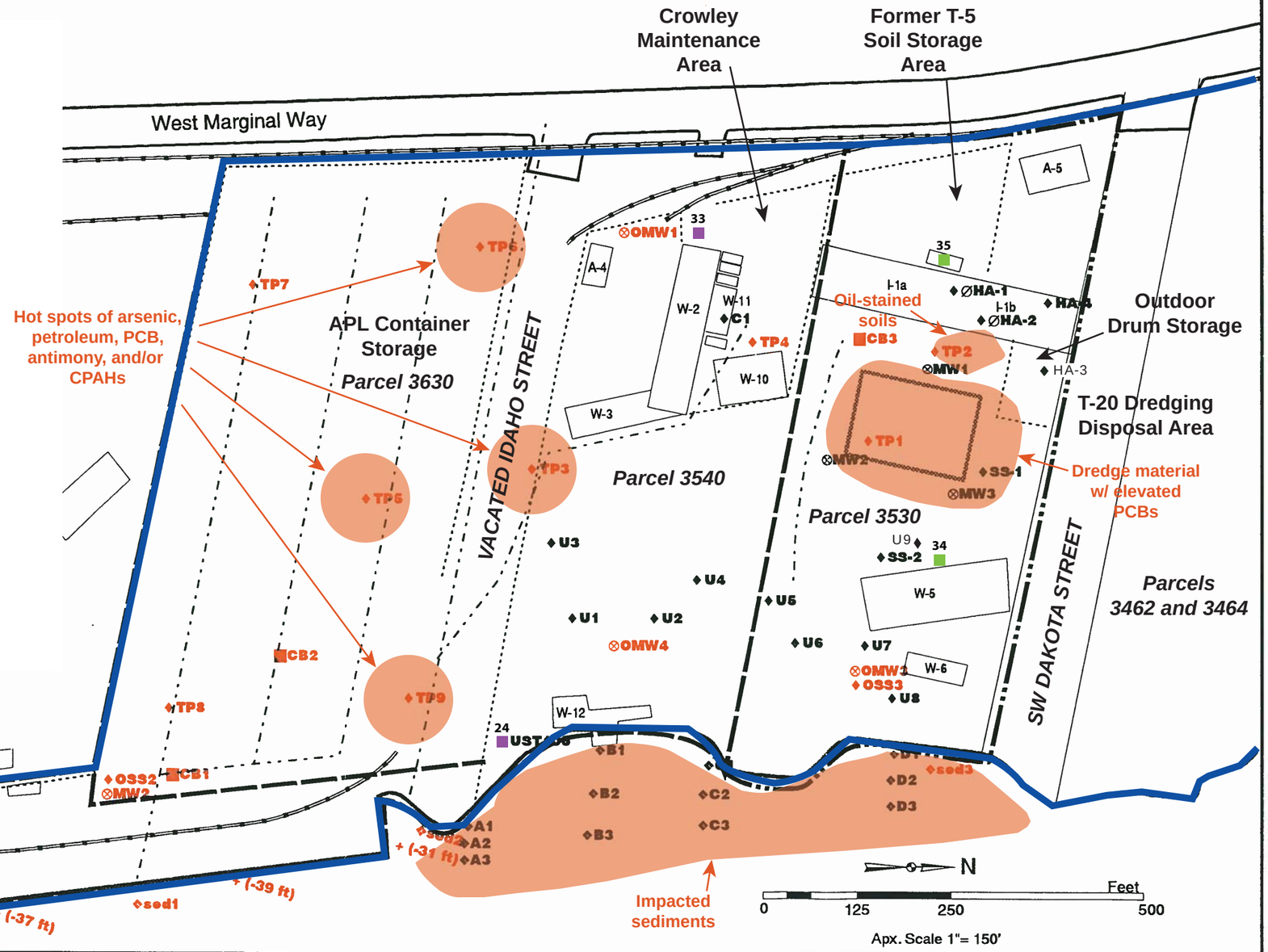
- ⊗MW1 Groundwater, POS 1985
- ♦U3 Soils, Geoengineers, 1985
- ♦D1 Sediments, Geoengineers, 1985 (Geotechnical samples)
- ♦UST105 Soils/UST POS 1989
- ♦∅HA-2 Soils and groundwater, Geoengineers, 1990
- ♦C1 Soils, Crowely Maritime
- ♦SS-2 Soils, Crowely Maritime

- ♦TP5 Soils, Test Pit
- ♦OSS Soils, Borehole
- ⊗OMW1 Groundwater
- ■CB2 Catchbasins/Stormwater
- ♦sed1 Sediment
- +(-9 ft) Sounding Bottom Depth (from msl)

- Shoreline
- Southern Portion
- Northern Portion
- Fence
- Railroad Track (approximate)
- Storm Drains (approximate)

Areas with known exceedances of screening standards

- Former Terminal 105
- Underground Storage Tank
- Aboveground Storage Tank



OLYMPUS ENVIRONMENTAL, INC.	Prepared by: Olympus Environmental	Date: 1/5/94
		g:\pier1054.cdr

Salmon Bay Steel, Pier 105

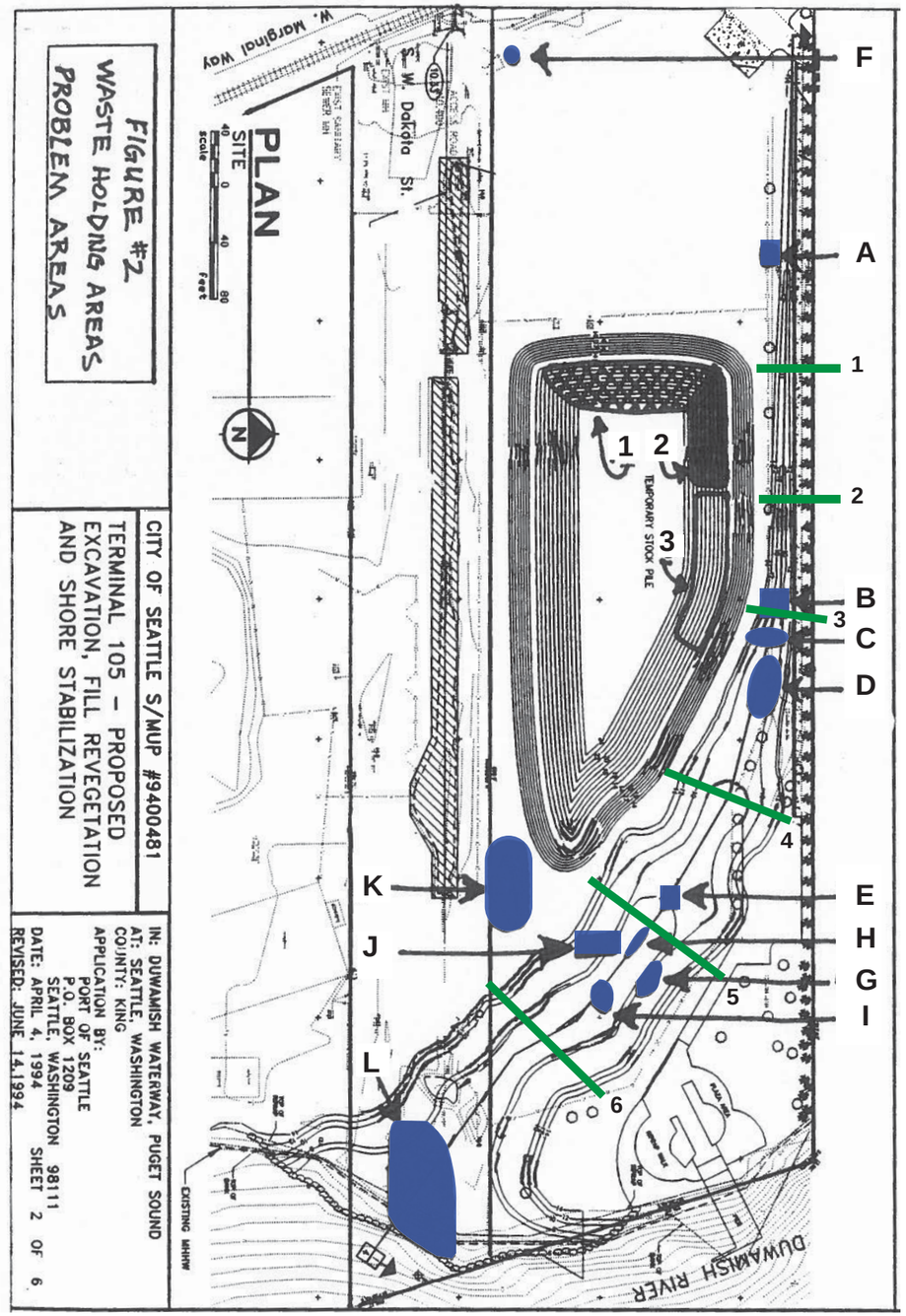
Figure 3
Sampling Locations

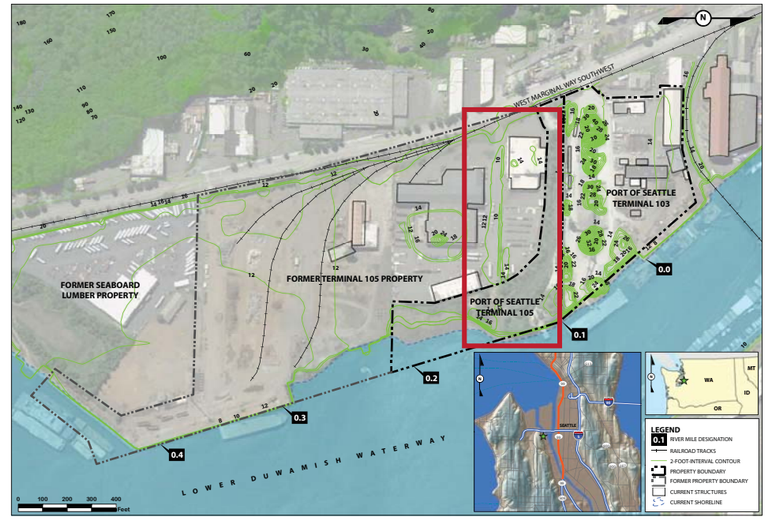
DEPARTMENT OF ECOLOGY State of Washington

Figure 16. Environmental Investigations
Terminal 105 — Southern Portion

Sources: GeoEngineers 1985; Port of Seattle 1993a; Olympus 1994

SAIC From Science to Solutions

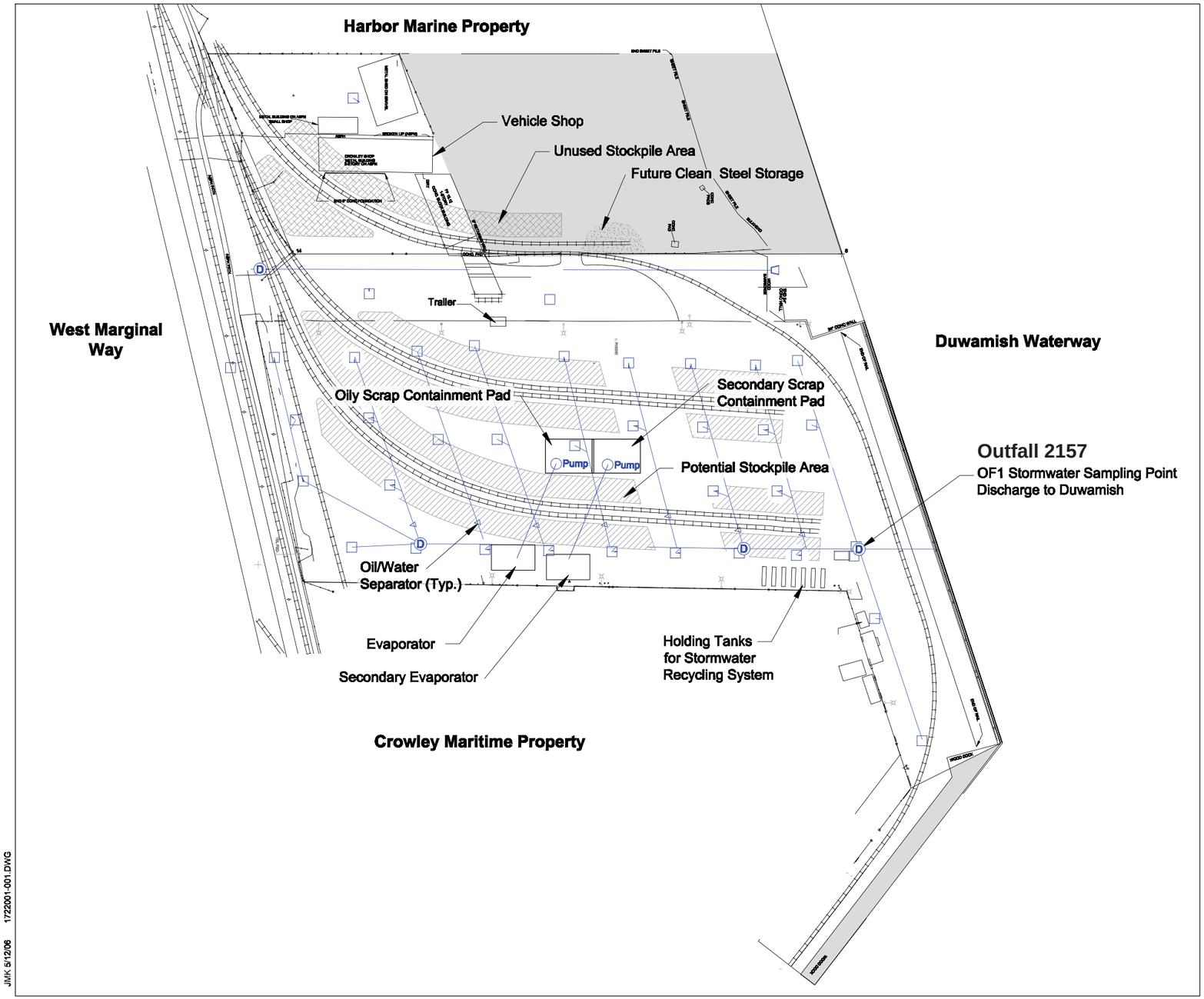




Sources: Port of Seattle 1995; Erda Environmental 1996

Figure 17. Intertidal Habitat Restoration
Terminal 105 Park

SWPPP Plan



- Storm Drain
- Oil/Water Separator
- Catch Basin
- Non-Paved Area
- Scrap Stockpile Area

Notes:
1. No stockpiles are stored on catch basins.
2. Site covered with asphalt or concrete except in non-paved areas.
3. No surface water exists on site.

N

0 150 300

Scale in Feet

HARTCROWSER

17220-01 *5/06*

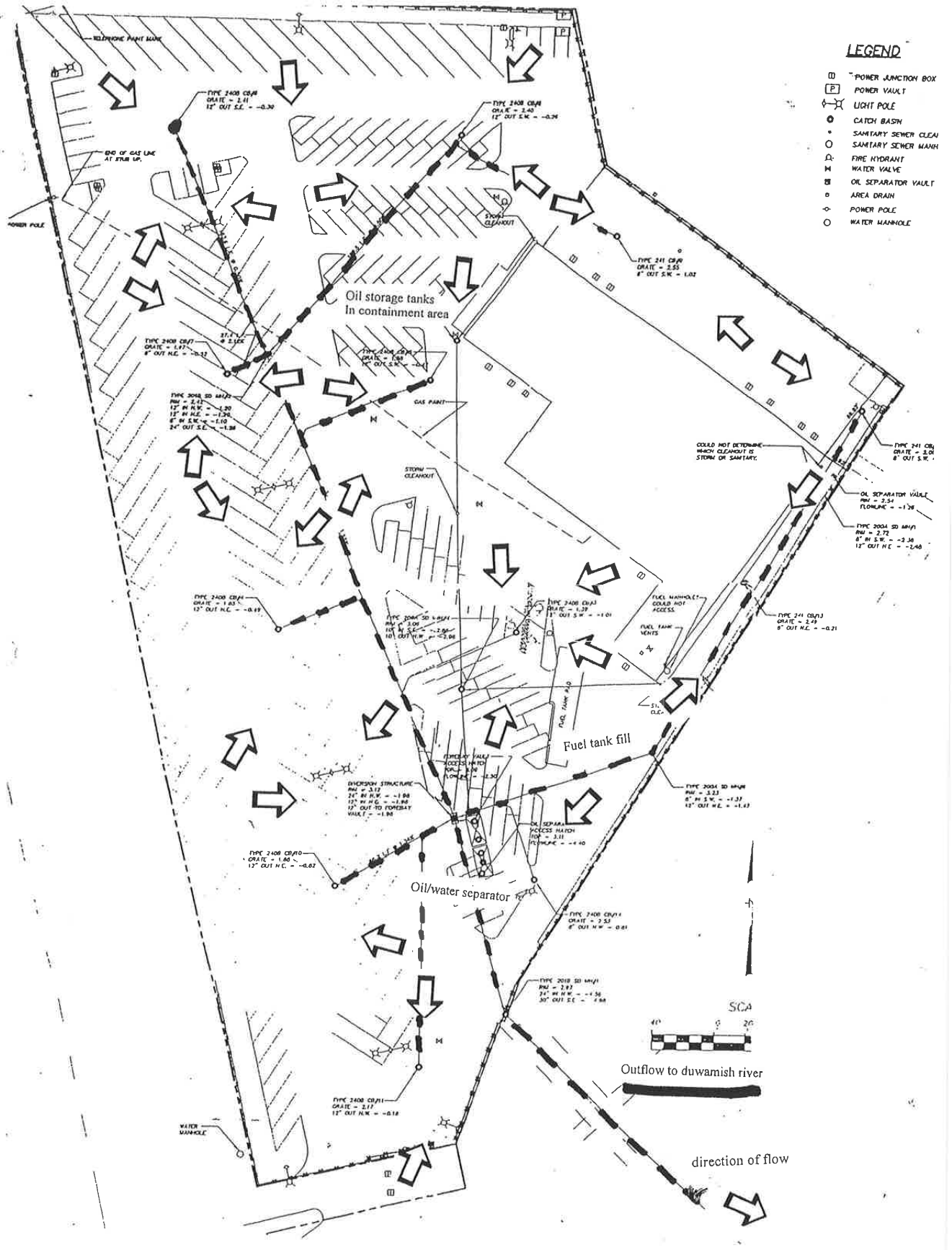
Figure 1

DEPARTMENT OF ECOLOGY State of Washington

Figure 18. General Recycling of Washington Facility Plan

Source: General Recycling 2010

SAIC® From Science to Solutions



Source: Evergreen Trails 2012

Figure 19. Evergreen Trails Facility Plan

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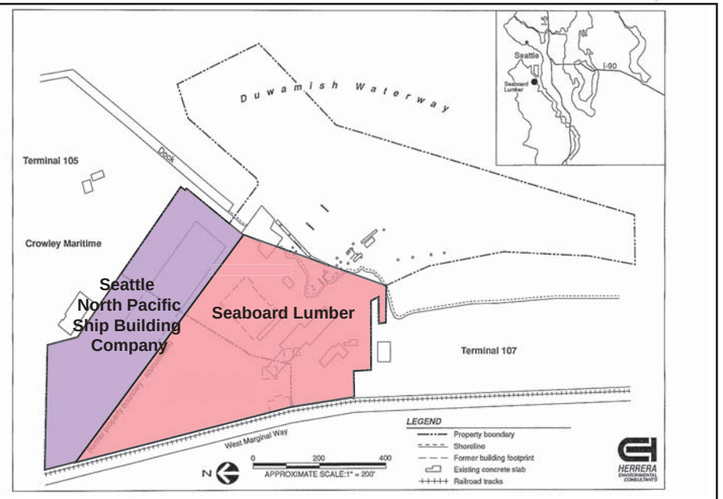
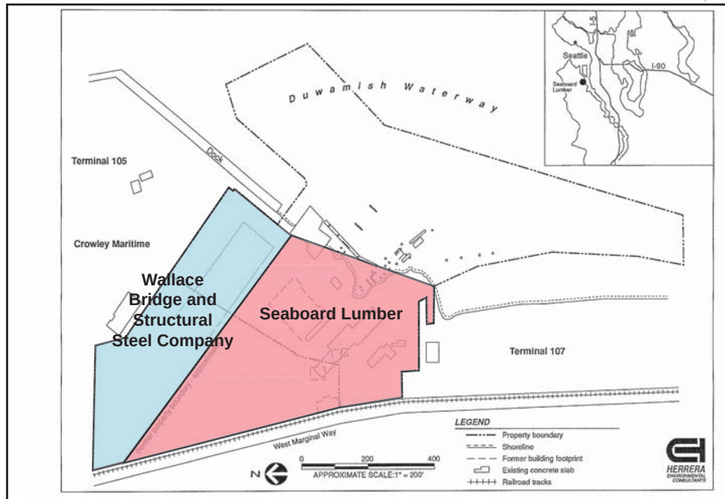
State of Washington

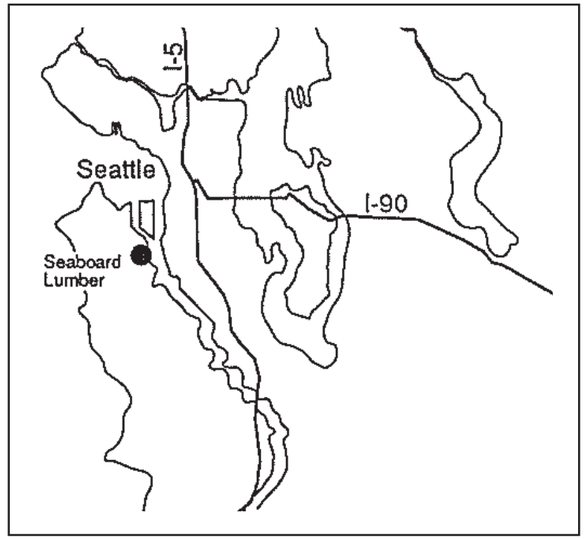
SAIC
From Science to Solutions



Property Owners from 1920 to 1927

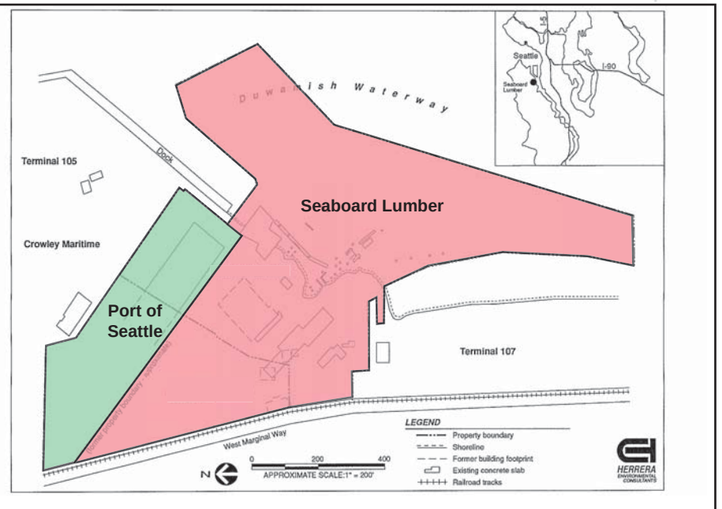


Property Owners from 1927 to 1964

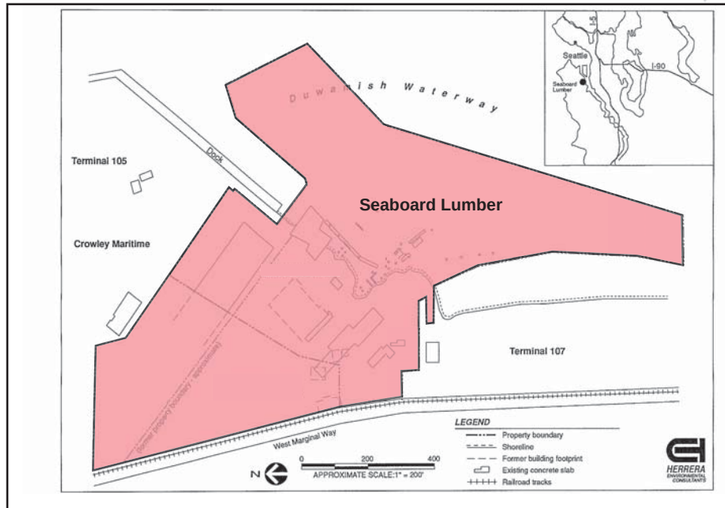


Property Owners

- Seaboard Lumber
- Seattle North Pacific Ship Building Company
- Wallace Bridge and Structural Steel Company
- Port of Seattle



Property Owners from 1965 to 1969



Property Owners from 1970 to 1984

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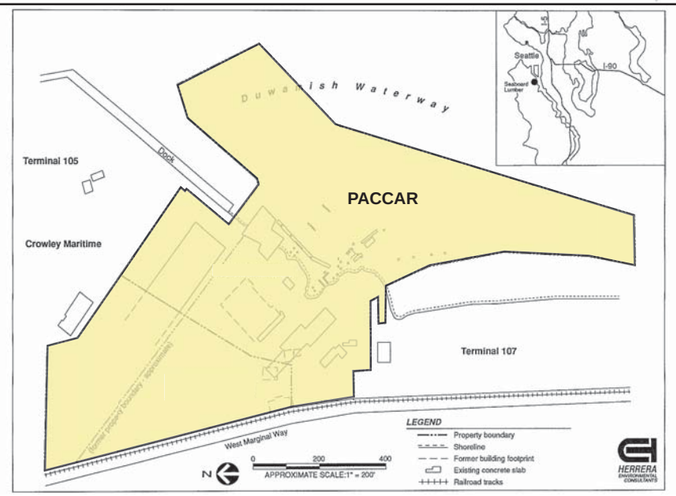
State of Washington

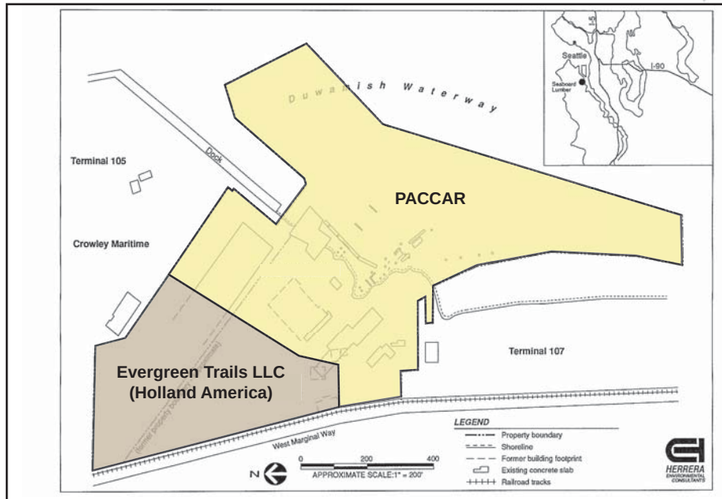
Figure 20a. Historical Property Owners, Seaboard Lumber, 1920–1984

Source: Herrera 1996

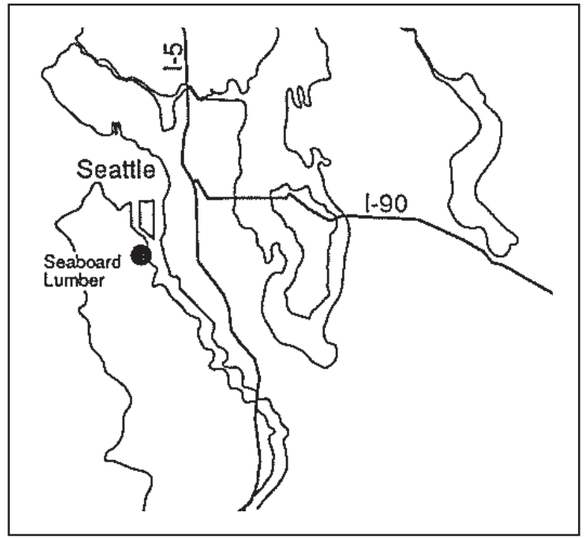
SAIC® From Science to Solutions



Property Owners from 1987 to 1992

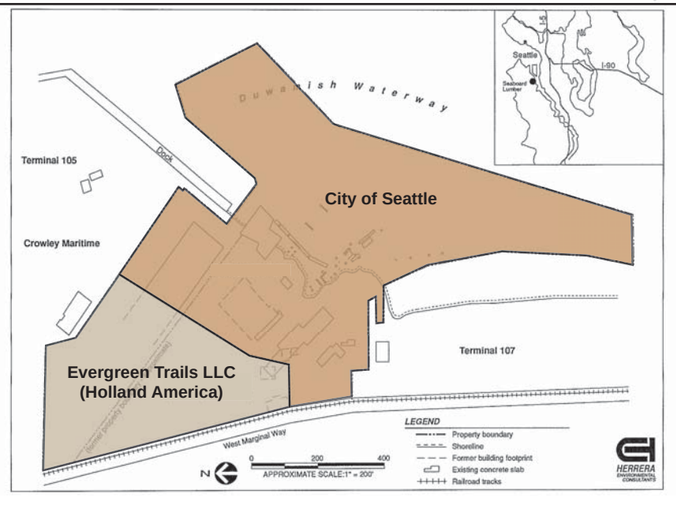


Property Owners from 1993 to 1997



Property Owners

- PACCAR
- Evergreen Trails LLC
- City of Seattle



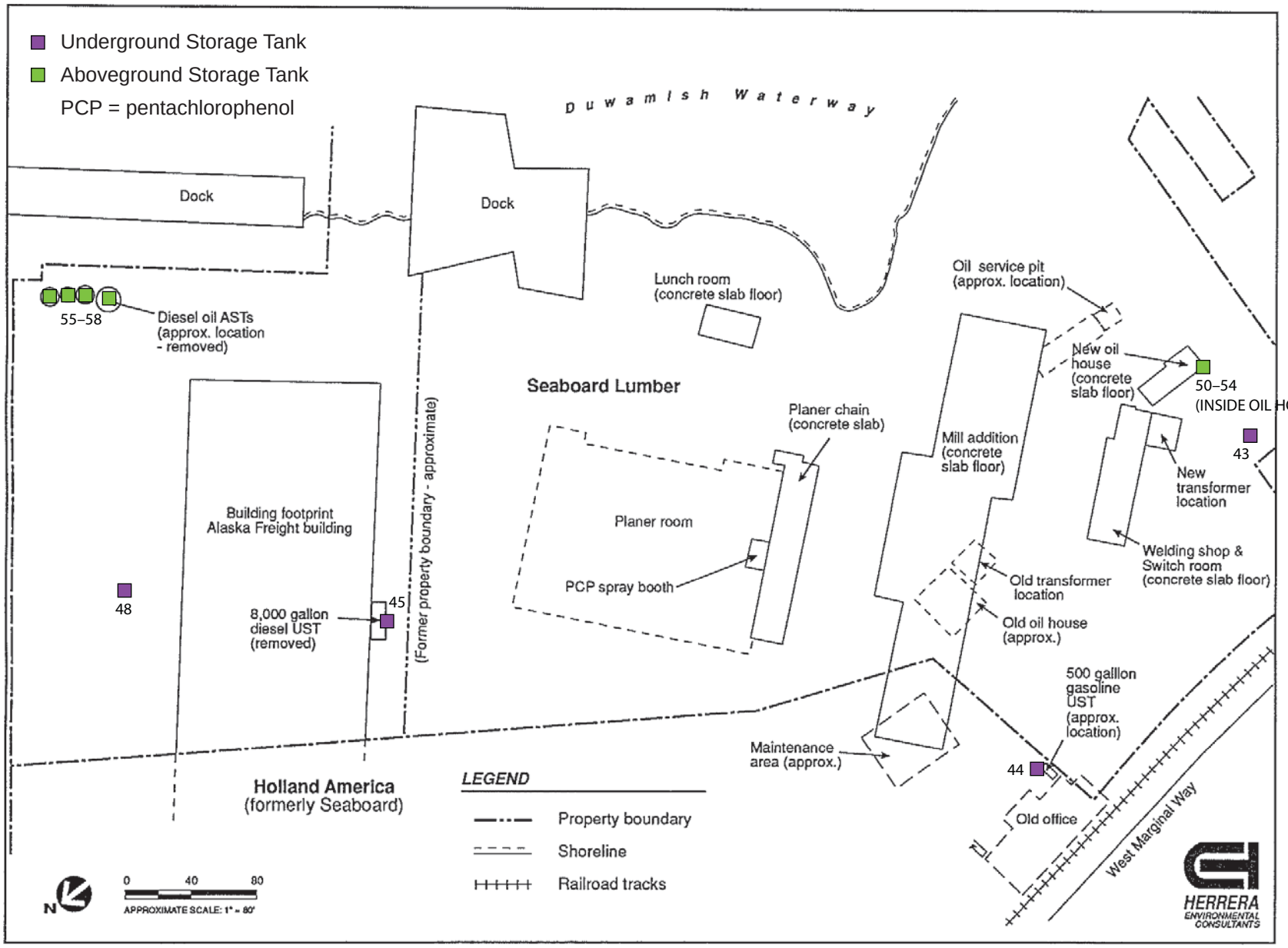
Property Owners from 1998 to Present

DEPARTMENT OF ECOLOGY
State of Washington

Source: Herrera 1996

Figure 20b. Historical Property Owners, Seaboard Lumber, 1987–Present

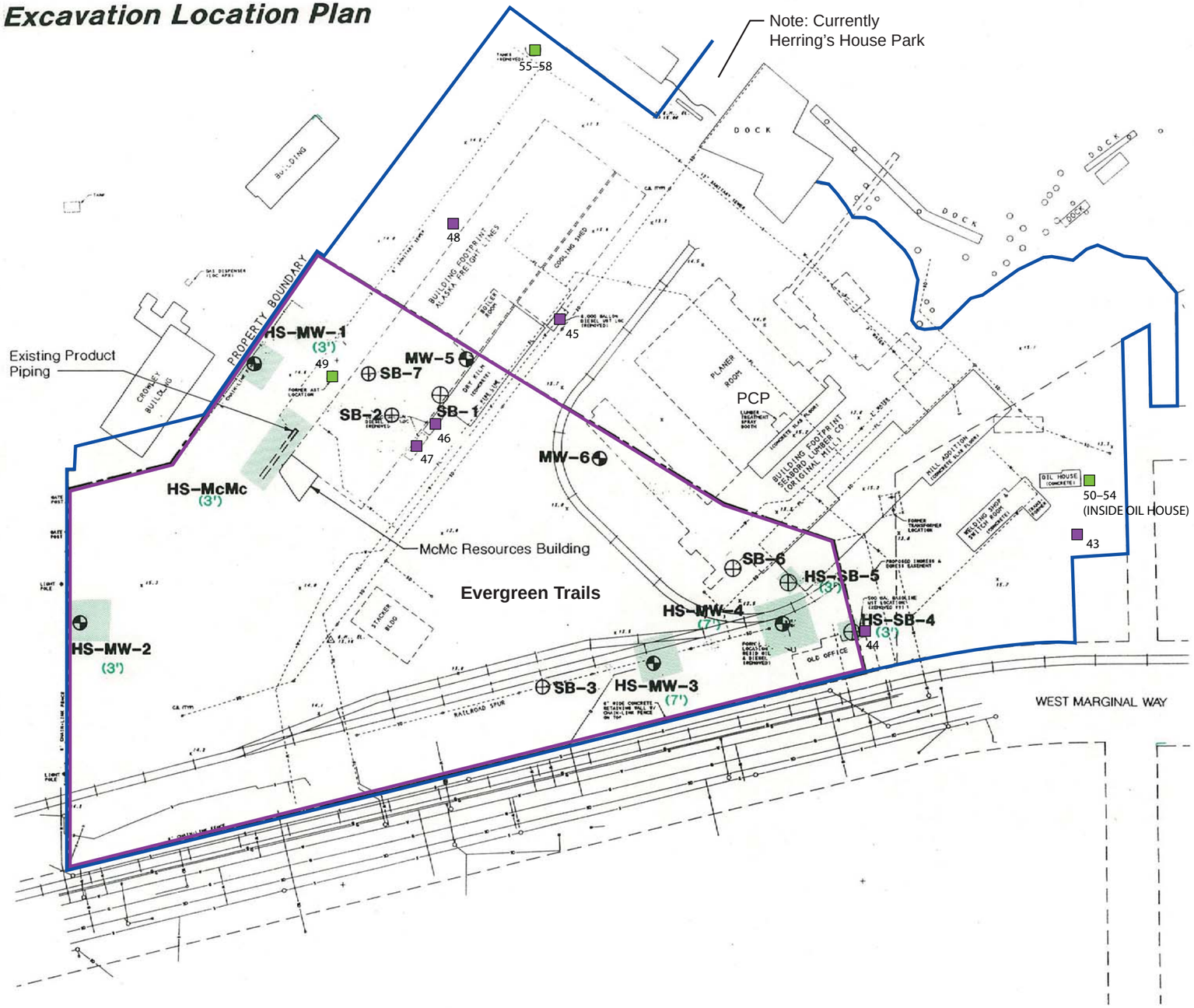
SAIC® From Science to Solutions



Source: Herrera 1996

Figure 21. Former Seaboard Lumber Property Plan (Parcel 3670)

Excavation Location Plan



SB–1 Boring Location and Number

MW–1 Monitoring Well Location and Number

HS–MW–1 Excavation Area and Number

(3') Planned Depth of Excavation in Feet

Notes: 1. Base map prepared from drawing provided by Environmental Services, Ltd., entitled "Seabord Lumber Audit Drilling Plan" dated August 14, 1992.

2. Exploration and excavation locations are approximate. This figure is not approved for construction or estimating purposes

Evergreen Trails Property Boundary

Former Seaboard Lumber Property Boundary

Underground Storage Tank

Aboveground Storage Tank

PCP = pentachlorophenol

N

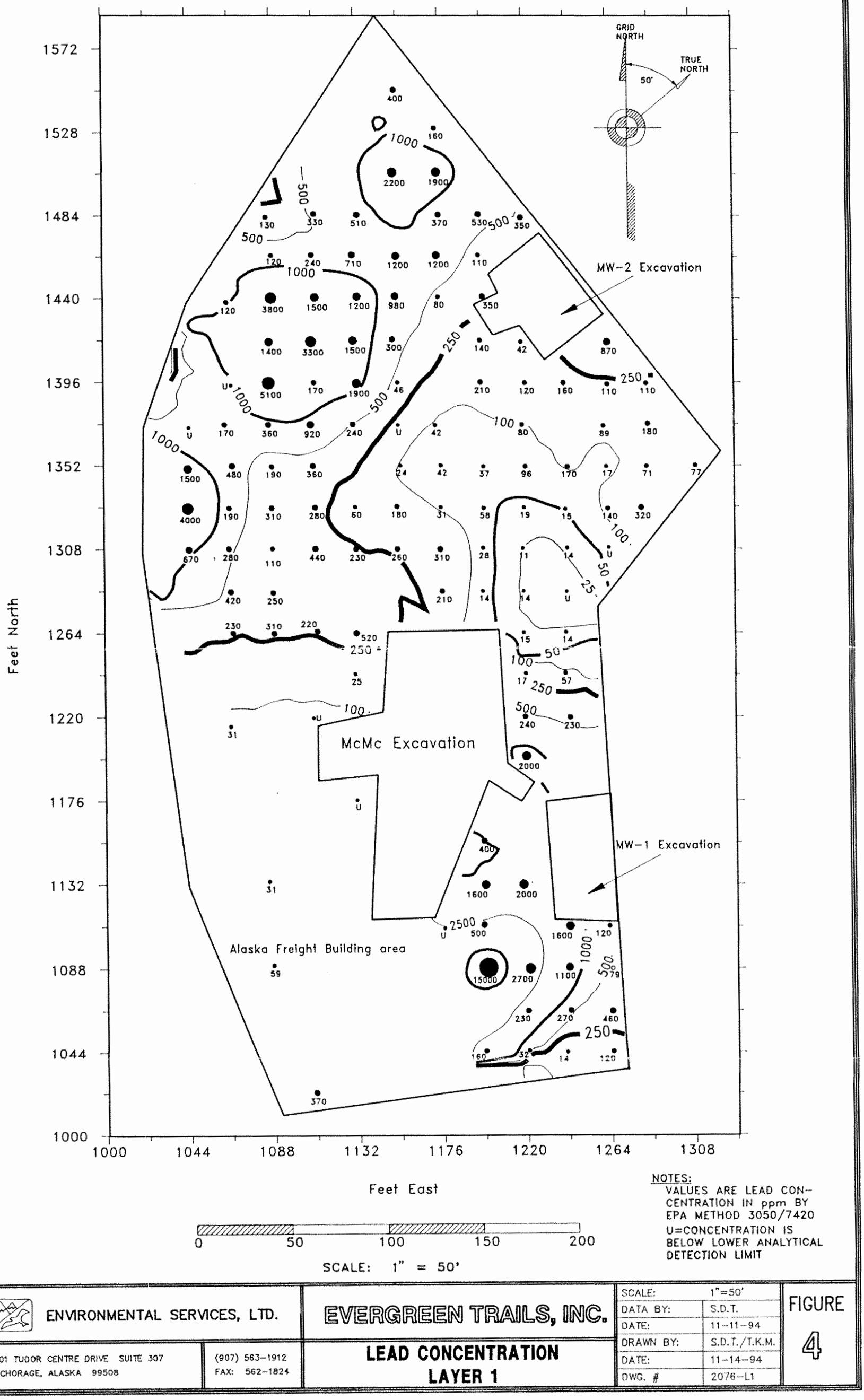
0 100 200

Scale in Feet

HARTCROWSER
J–2888–01 11/92
Figure 3
Revision 2

Source: Hart Crowser 1992

Figure 22. Former Seaboard Lumber Property Plan and Evergreen Trails (Parcel 3680) Environmental Investigations



NOTES:
VALUES ARE LEAD CONCENTRATION IN ppm BY EPA METHOD 3050/7420
U=CONCENTRATION IS BELOW LOWER ANALYTICAL DETECTION LIMIT

ENVIRONMENTAL SERVICES, LTD. 4201 TUDOR CENTRE DRIVE SUITE 307 ANCHORAGE, ALASKA 99508 (907) 563-1912 FAX: 562-1824	EVERGREEN TRAILS, INC. LEAD CONCENTRATION LAYER 1	SCALE: 1"=50' DATA BY: S.D.T. DATE: 11-11-94 DRAWN BY: S.D.T./T.K.M. DATE: 11-14-94 DWG. # 2076-L1	FIGURE 4

Source: ESL 1995

DEPARTMENT OF ECOLOGY
State of Washington

Figure 23. Remedial Excavation
Former Seaboard Lumber/Evergreen Trails

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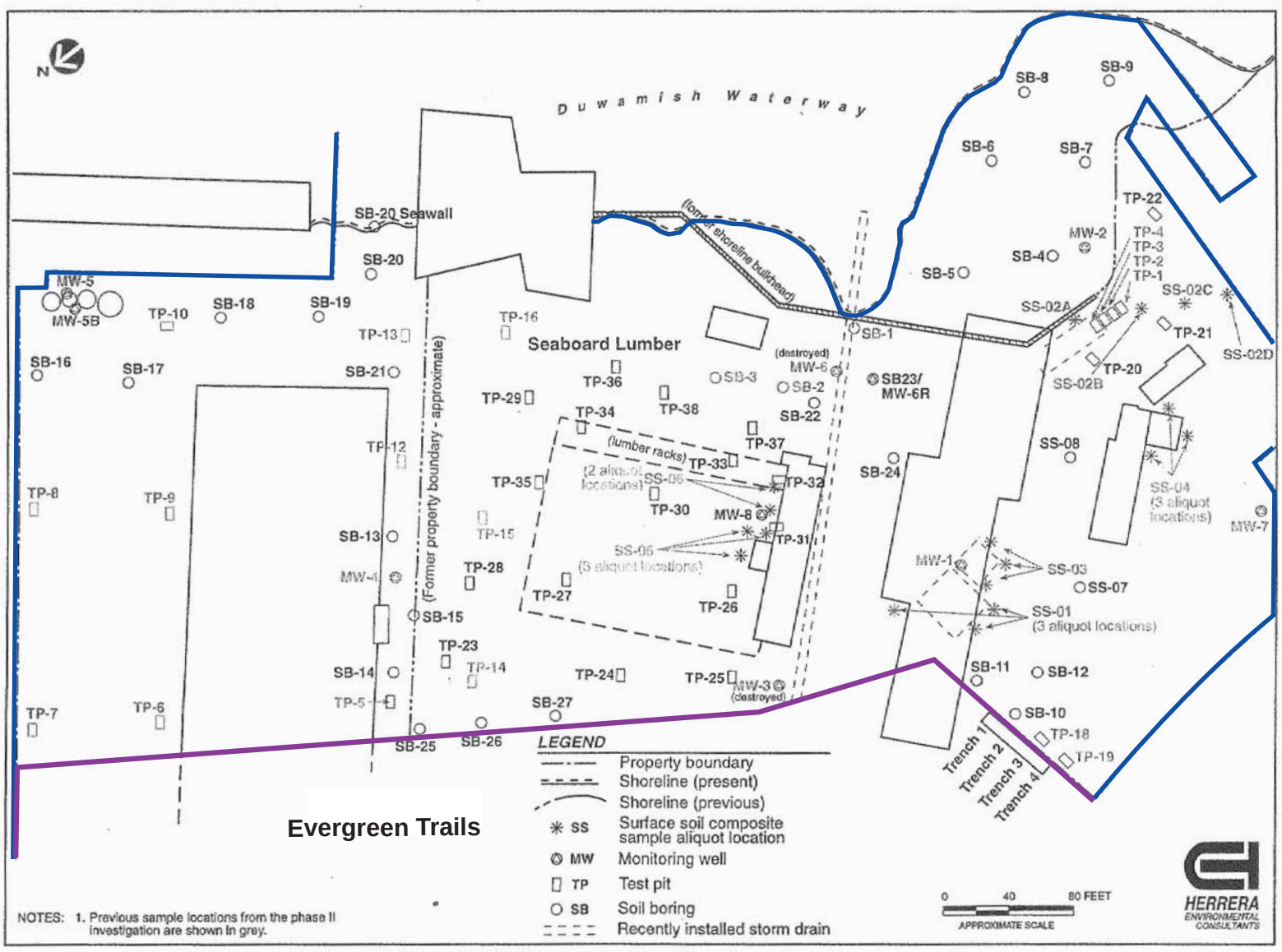

Figure 3. Sampling locations for phase III site investigation at Seaboard Lumber site.

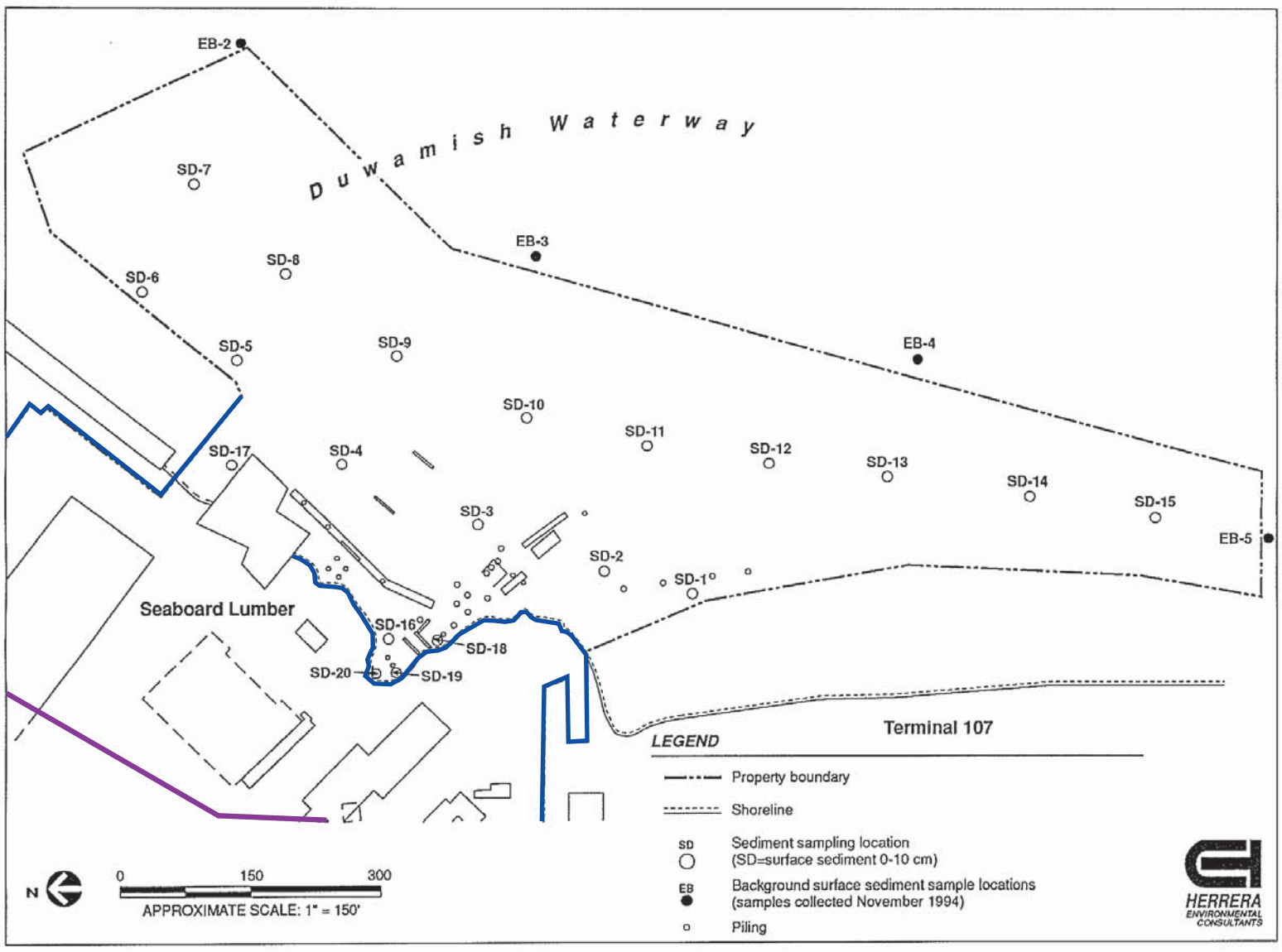

Figure 4. Sediment sampling locations at Seaboard Lumber site.

Evergreen Trails Property Boundary

Former Seaboard Lumber Property Boundary

Source: Herrera 1997b

Figure 24. Former Seaboard Lumber (Parcels 3670 and 9104) Environmental Investigations

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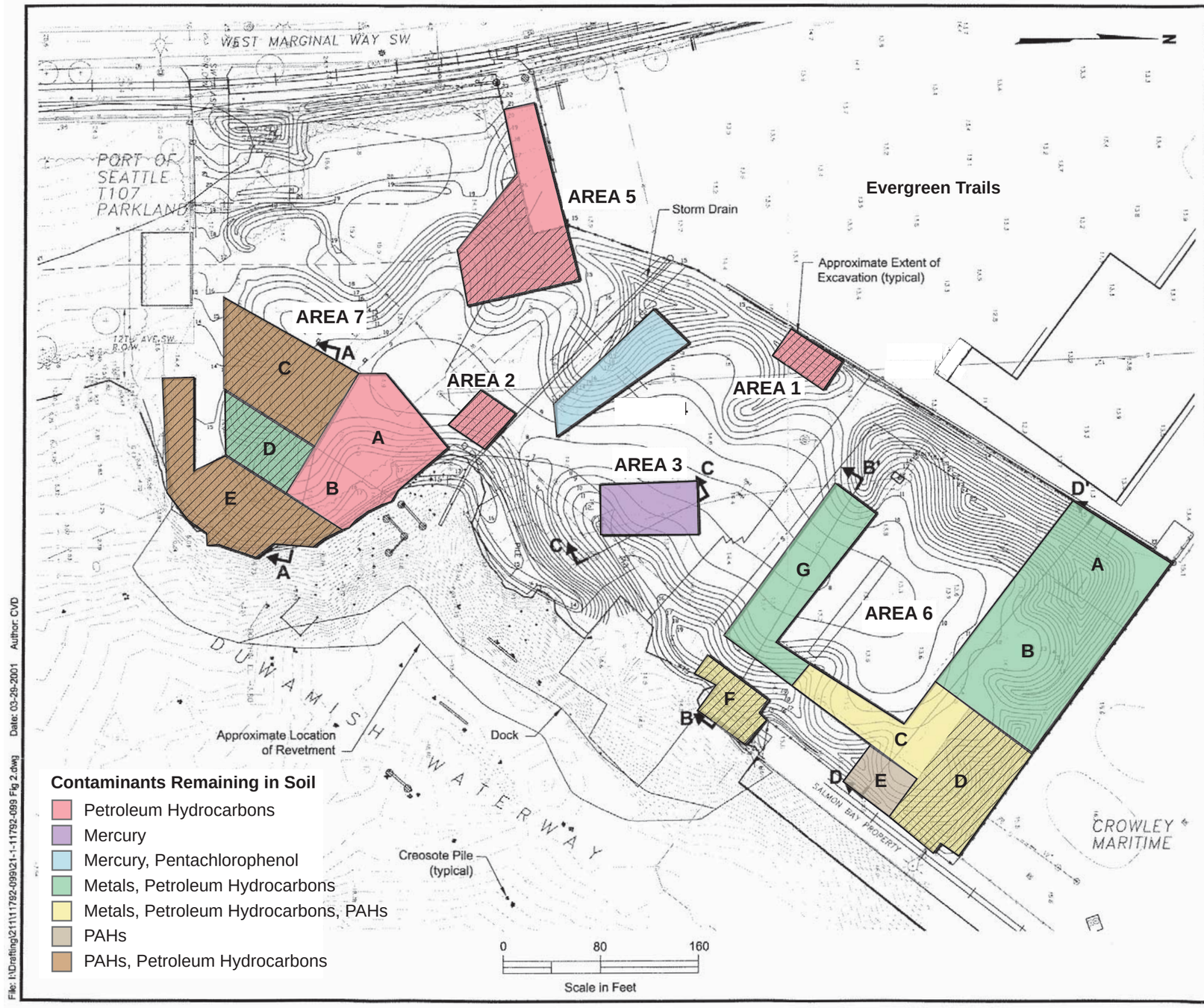
SAIC From Science to Solutions



AREA	POTENTIAL CONTAMINANTS IN SOIL	EST. MAX. DEPTH OF RESIDUALLY CONTAM. SOIL (BGS)
1	PETROLEUM (DIESEL, OIL)	3 feet
2	PETROLEUM (DIESEL, OIL)	4.5 feet
3	MERCURY	1.5 feet
4	PENTACHLOROPHENOL, MERCURY	4 feet
5	PETROLEUM (GASOLINE, DIESEL, OIL)	4 feet
6A	LEAD, PETROLEUM	2 feet
6B	LEAD, PETROLEUM	3 feet
6C	LEAD, PETROLEUM (DIESEL, OIL), PAH	5 feet
6D	ARSENIC, CADMIUM, CHROMIUM, MERCURY, PETROLEUM (OIL), PAH	10 feet
6E	PAH	2.5 feet
6F	ARSENIC, LEAD, PAH, PETROLEUM (OIL)	12 feet
6G	LEAD, PETROLEUM (DIESEL, OIL)	2 feet
7A	PETROLEUM (DIESEL, OIL)	12 feet
7B	PETROLEUM (DIESEL, OIL)	17 feet
7C	PETROLEUM (DIESEL, OIL), PAH	14 feet
7D	ARSENIC, PETROLEUM (DIESEL, OIL)	22 feet
7E	PETROLEUM (DIESEL, OIL), PAH	19.5 feet

LEGEND

PAH Polycyclic Aromatic Hydrocarbons

BGS Below (Existing) Ground Surface

Existing Contour

Proposed Contour

AA' Cross Section Location and Designation

NOTES

1. Extent of contaminated areas are based on Phase II and III investigations by Herrera Environmental Consultants. These are pre-excavation conditions.
2. Drawing is modified from Seaboard Lumber Aquatic Habitat Restoration, Remediation Plan, Sheet 6 (June 1998).
3. Hatched areas indicate that residually contaminated soils were present after excavation. A 2-foot cover was placed over the area.

Corrective Action Report
Seaboard Lumber
Seattle, Washington

SITE PLAN

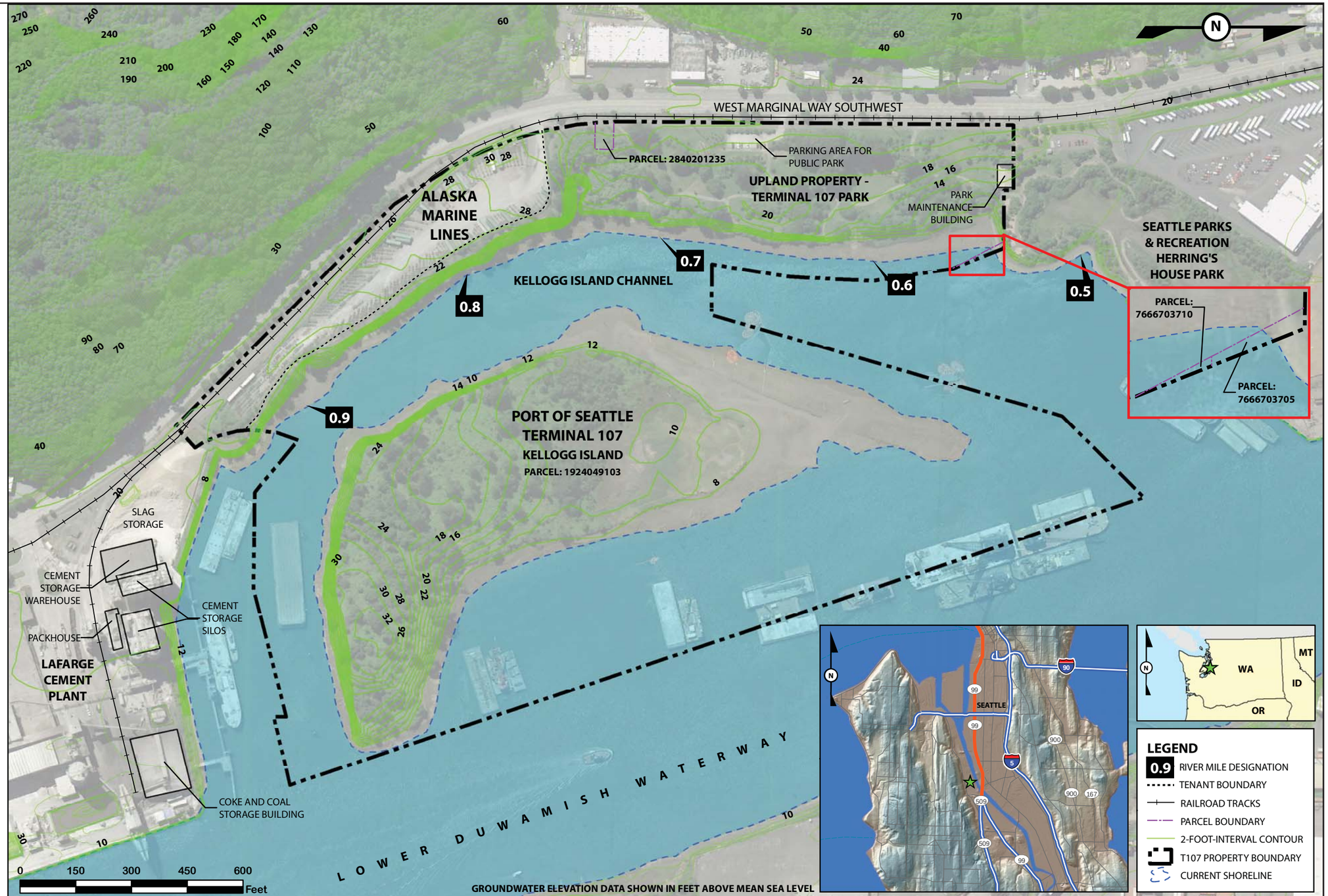
March 2001 21-1-11792-099

SHANNON & WILSON, INC. Geotechnical and Environmental Consultants

FIG. 2

Source: Shannon & Wilson 2001

Figure 25. Remedial Investigation
Former Seaboard Lumber/Herring's House Park



DEPARTMENT OF ECOLOGY State of Washington

Source: SoundEarth 2011a

Figure 26. Terminal 107 Property Plan and Vicinity Map

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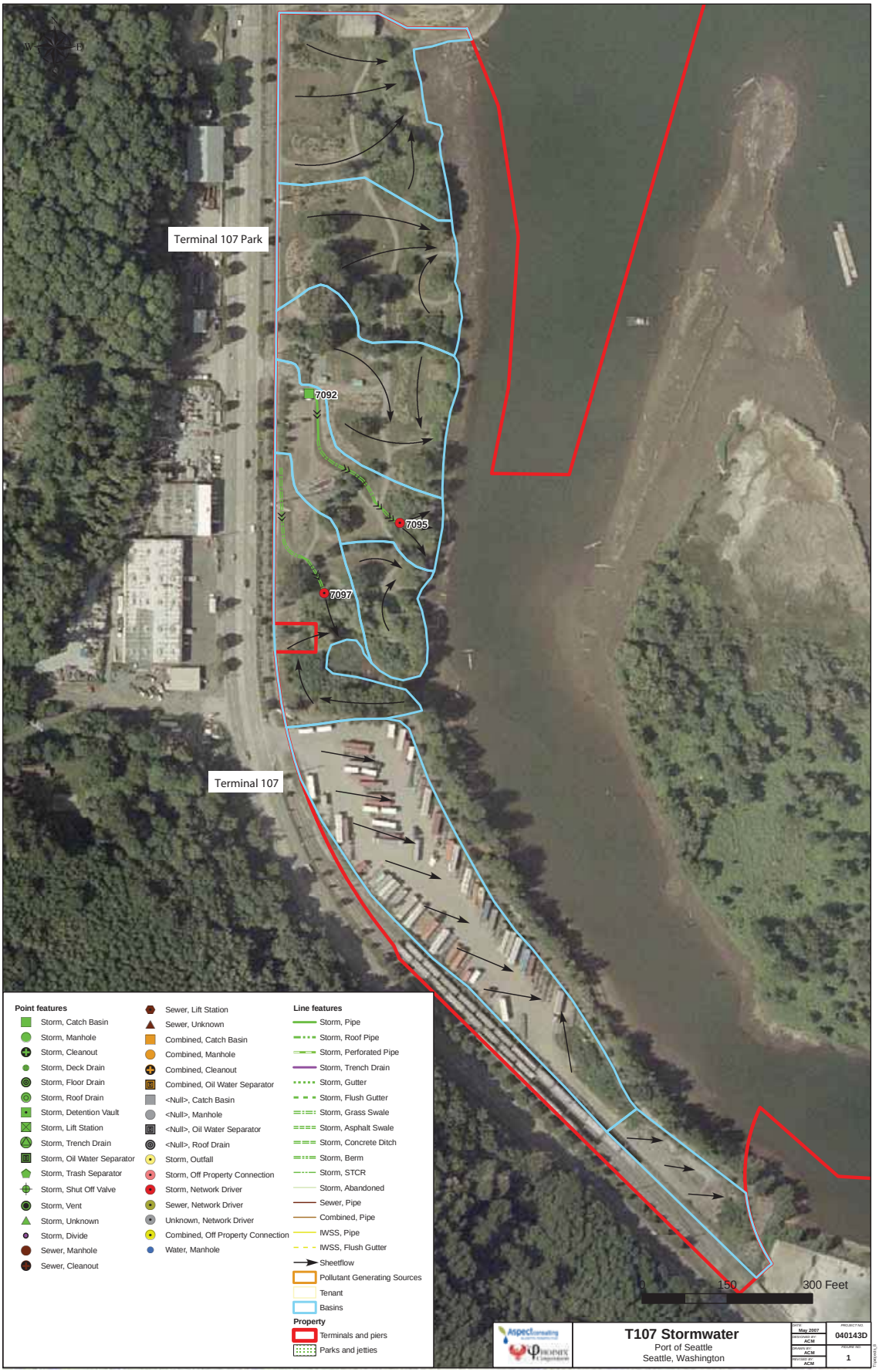


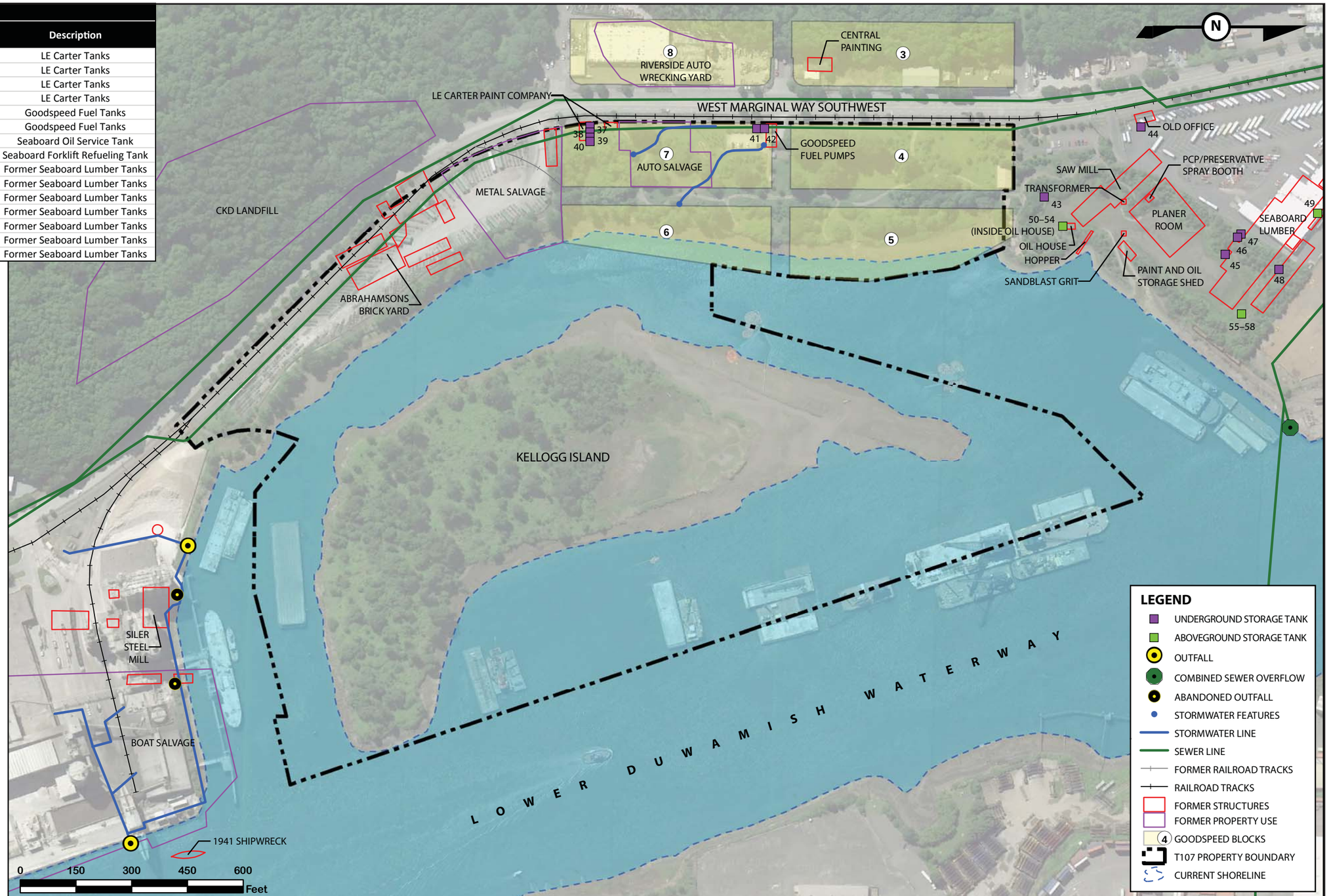
Source: Phoinix 2007a

Figure 27. Terminal 107 Stormwater Map

DEPARTMENT OF ECOLOGY
State of Washington

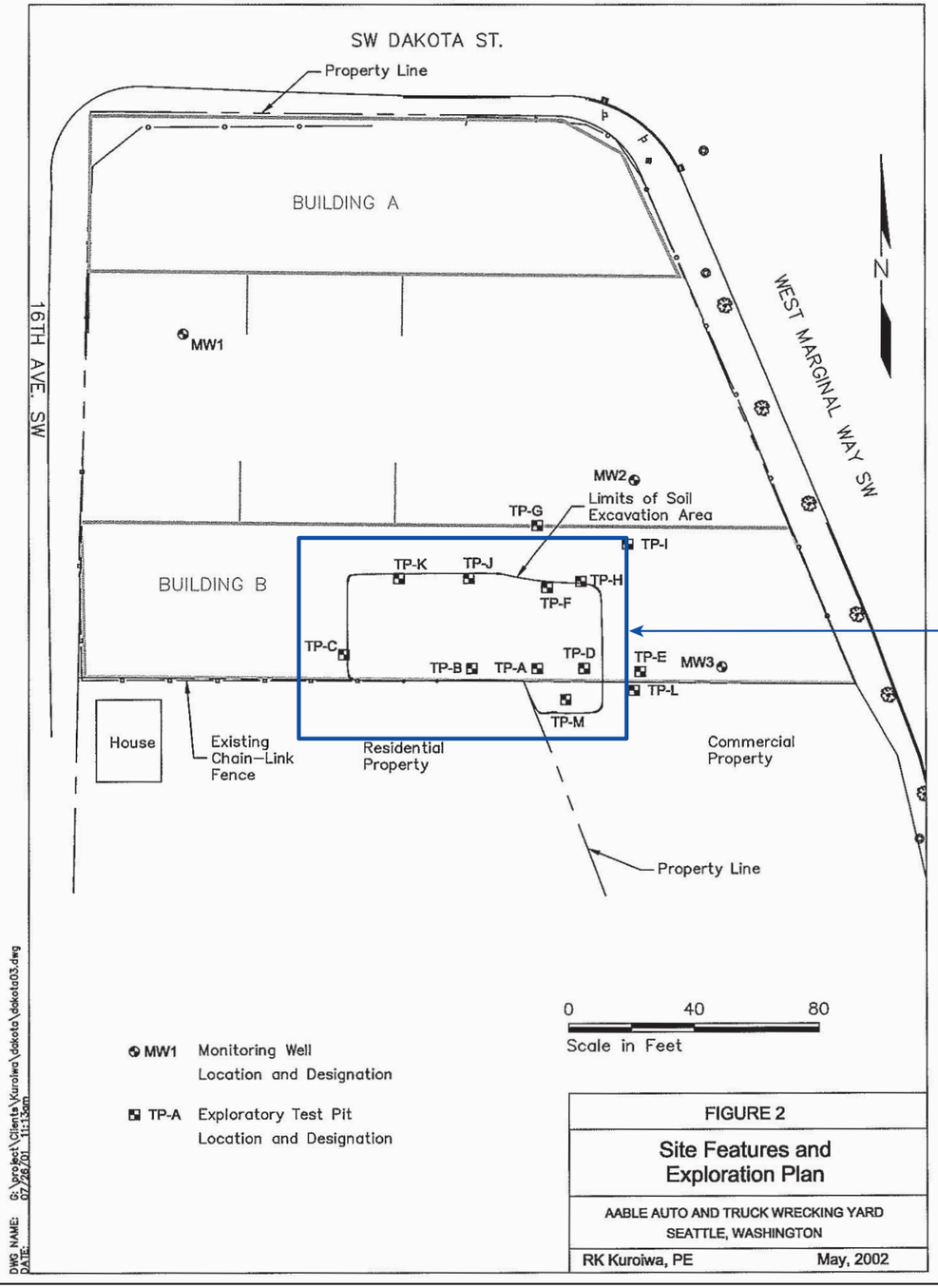
SAIC® From Science to Solutions

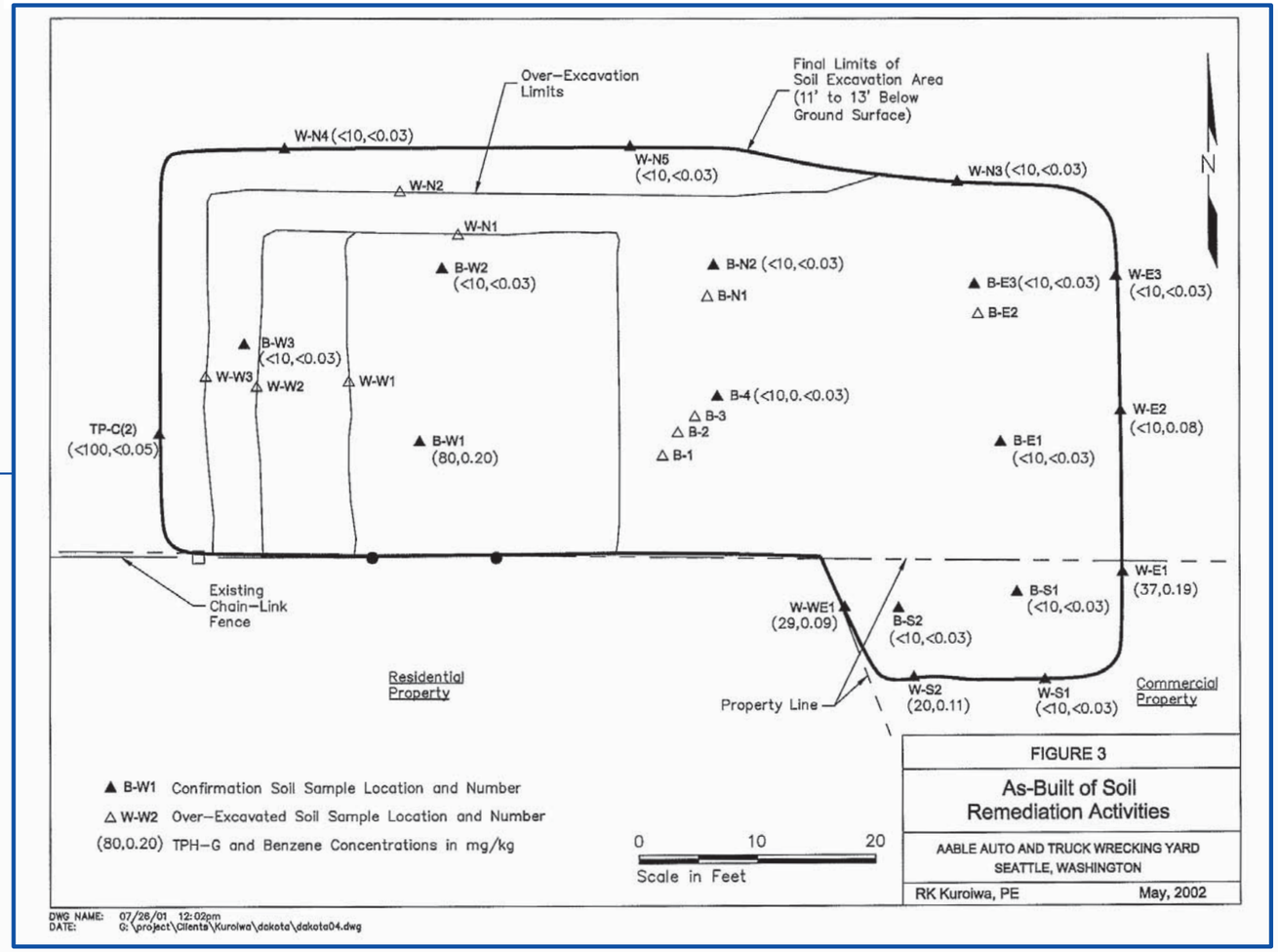
Tank Identification				
Tank #	**Contents**	**Capacity (Gallons)**	**Status**	**Description**
37	Paint Solvents	6,000	Unknown	LE Carter Tanks
38	Paint Solvents	4,000	Unknown	LE Carter Tanks
39	Paint Solvents	7,500	Unknown	LE Carter Tanks
40	Paint Solvents	7,500	Unknown	LE Carter Tanks
41	Unknown	3,000	Unknown	Goodspeed Fuel Tanks
42	Unknown	3,000	Unknown	Goodspeed Fuel Tanks
43	Lube Oil/Waste Oil	2,100	Removed	Seaboard Oil Service Tank
44	Gasoline	500	Unknown	Seaboard Forklift Refueling Tank
45	Diesel	8,000	Removed	Former Seaboard Lumber Tanks
46	Diesel	10,000	Removed	Former Seaboard Lumber Tanks
47	Diesel	10,000	Removed	Former Seaboard Lumber Tanks
48	Heating Oil	300	Removed	Former Seaboard Lumber Tanks
49	Diesel	1,000	Removed	Former Seaboard Lumber Tanks
50-54	Lubricating Oil	300	Removed	Former Seaboard Lumber Tanks
55-58	Diesel	Unknown	Removed	Former Seaboard Lumber Tanks



Source: SoundEarth 2011a

Figure 28. Terminal 107 Historical Features





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State of Washington

Source: Kuroiwa 2002

Figure 29. Environmental Investigations
4101 West Marginal Way Business Park

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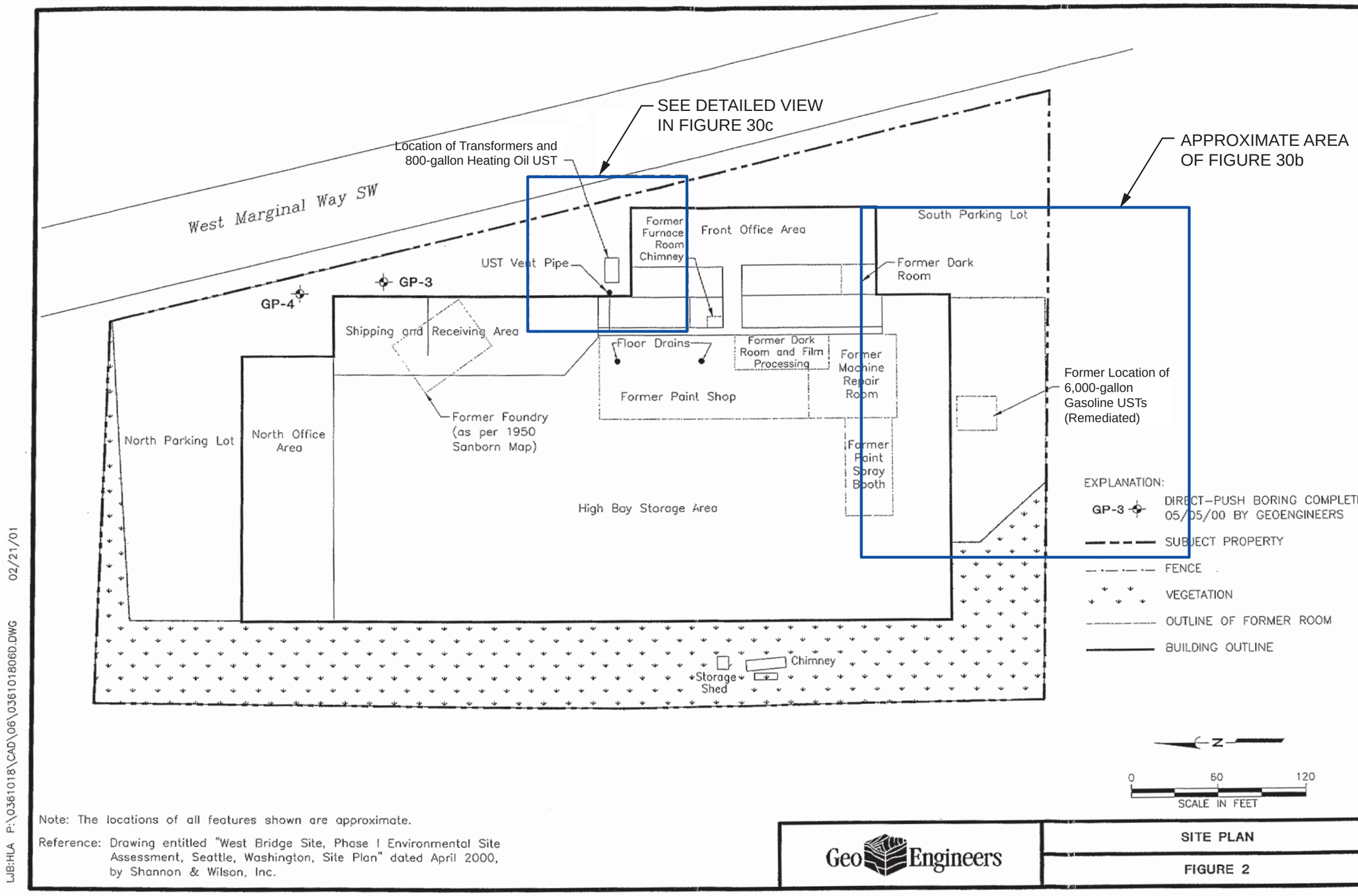


Source: GeoEngineers 2001

Figure 30a. Seattle Parks and Recreation Westbridge Maintenance Facility

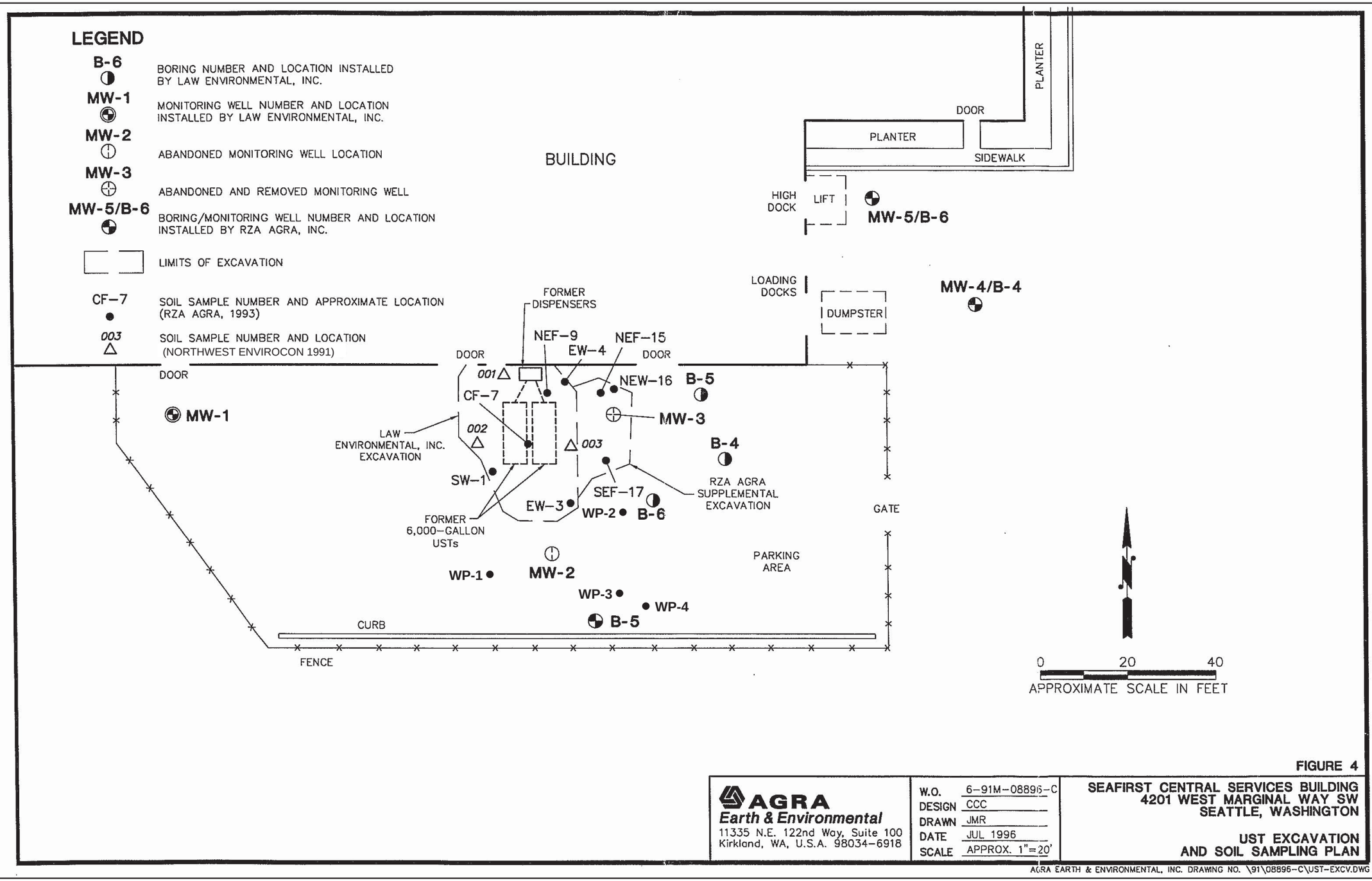


FIGURE 4

AGRA
Earth & Environmental
11335 N.E. 122nd Way, Suite 100
Kirkland, WA, U.S.A. 98034-6918

W.O.	6-91M-08896-C
DESIGN	CCC
DRAWN	JMR
DATE	JUL 1996
SCALE	APPROX. 1"=20'

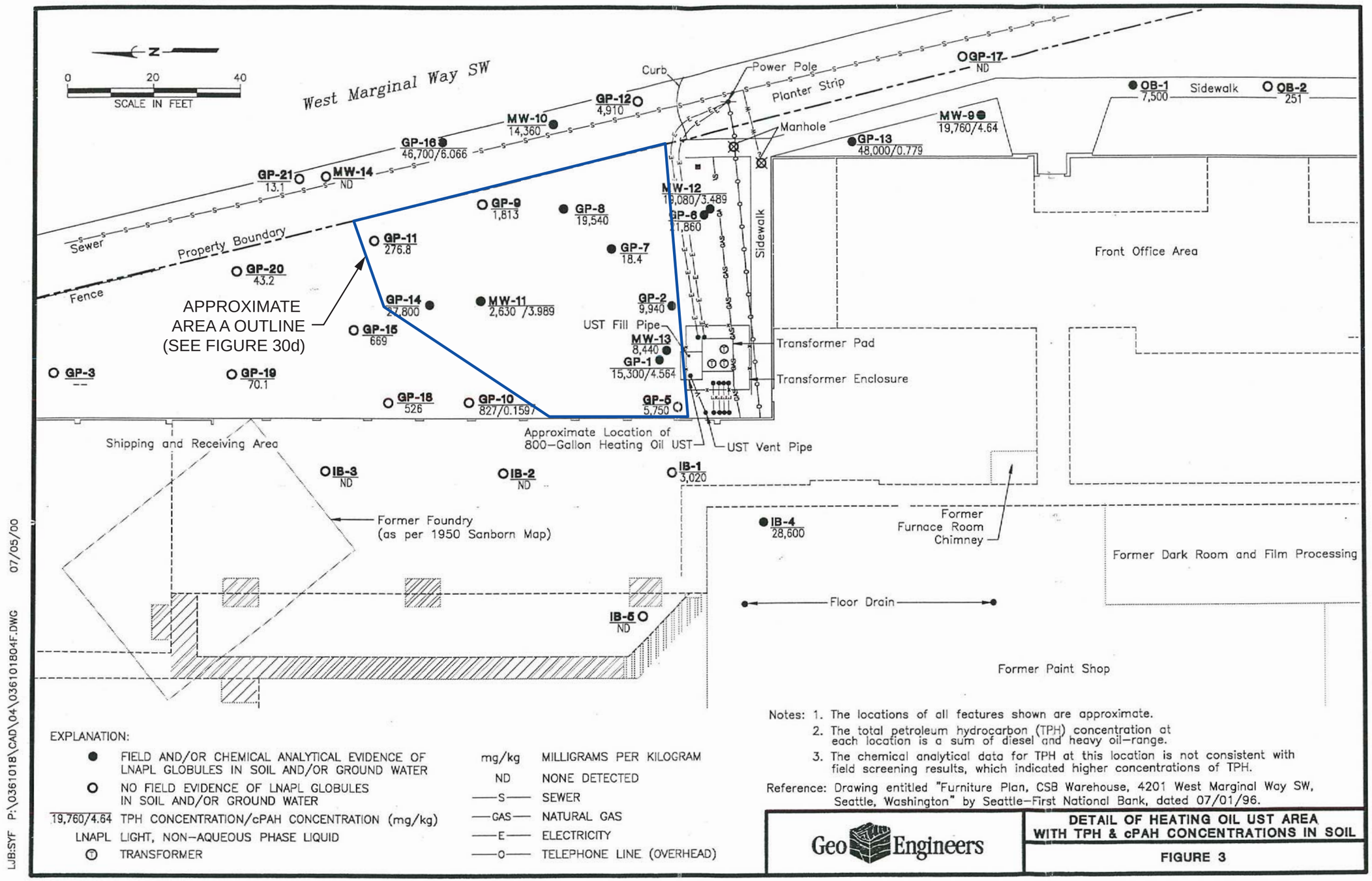
SEAFIRST CENTRAL SERVICES BUILDING
4201 WEST MARGINAL WAY SW
SEATTLE, WASHINGTON

UST EXCAVATION
AND SOIL SAMPLING PLAN

AGRA EARTH & ENVIRONMENTAL, INC. DRAWING NO. \91\08896-C\UST-EXCV.DWG

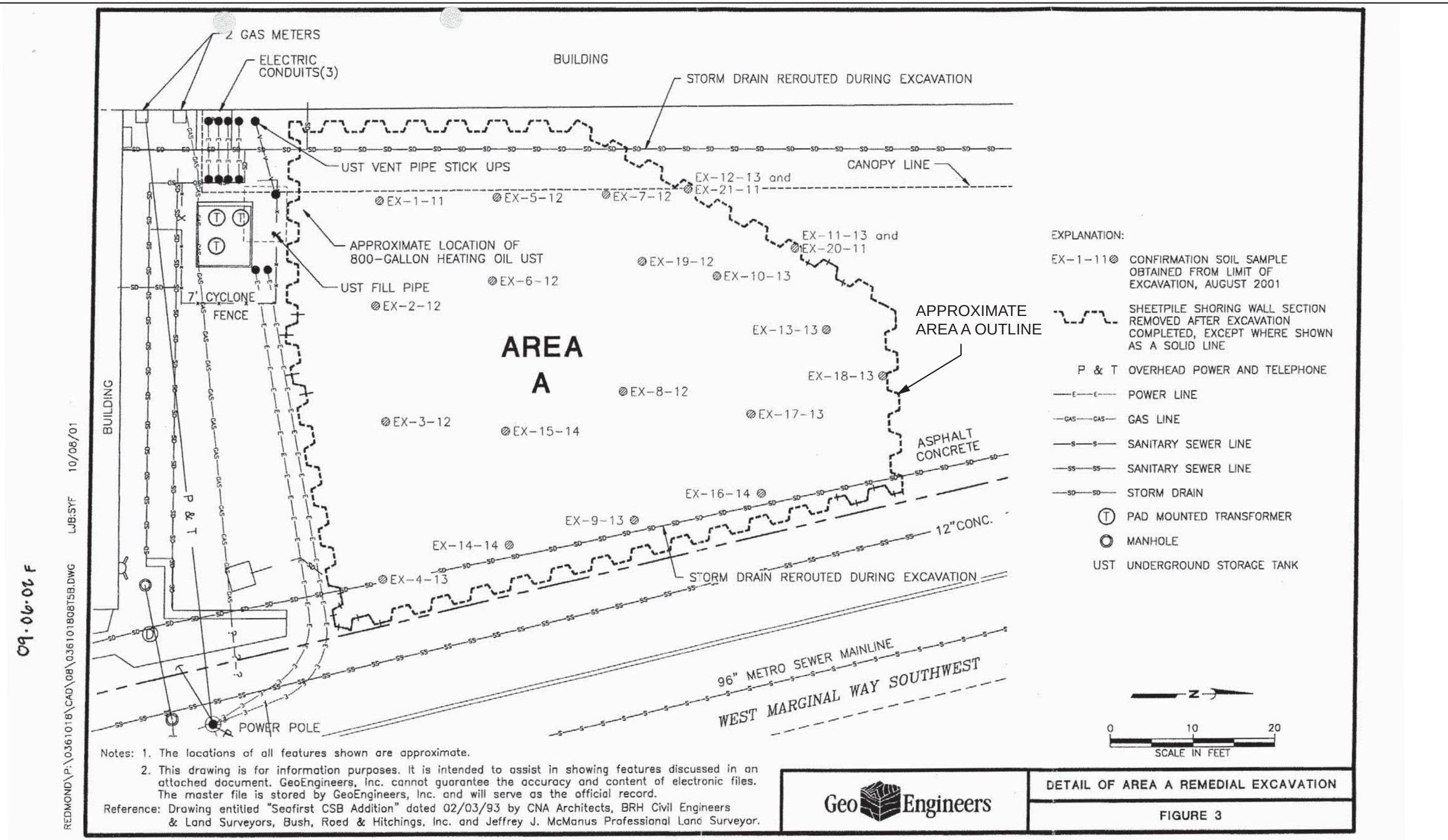
Sources: Law Environmental 1991; Northwest Envirocon 1991; AGRA 1996

Figure 30b. Seattle Parks and Recreation Westbridge Maintenance Facility Gasoline UST Assessments



Source: GeoEngineers 2001

Figure 30c. Seattle Parks and Recreation Westbridge Maintenance Facility Heating Oil UST Assessments



Notes: 1. The locations of all features shown are approximate.

2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record.

Reference: Drawing entitled "Seafirst CSB Addition" dated 02/03/93 by CNA Architects, BRH Civil Engineers & Land Surveyors, Bush, Roed & Hitchings, Inc. and Jeffrey J. McManus Professional Land Surveyor.

Geo Engineers

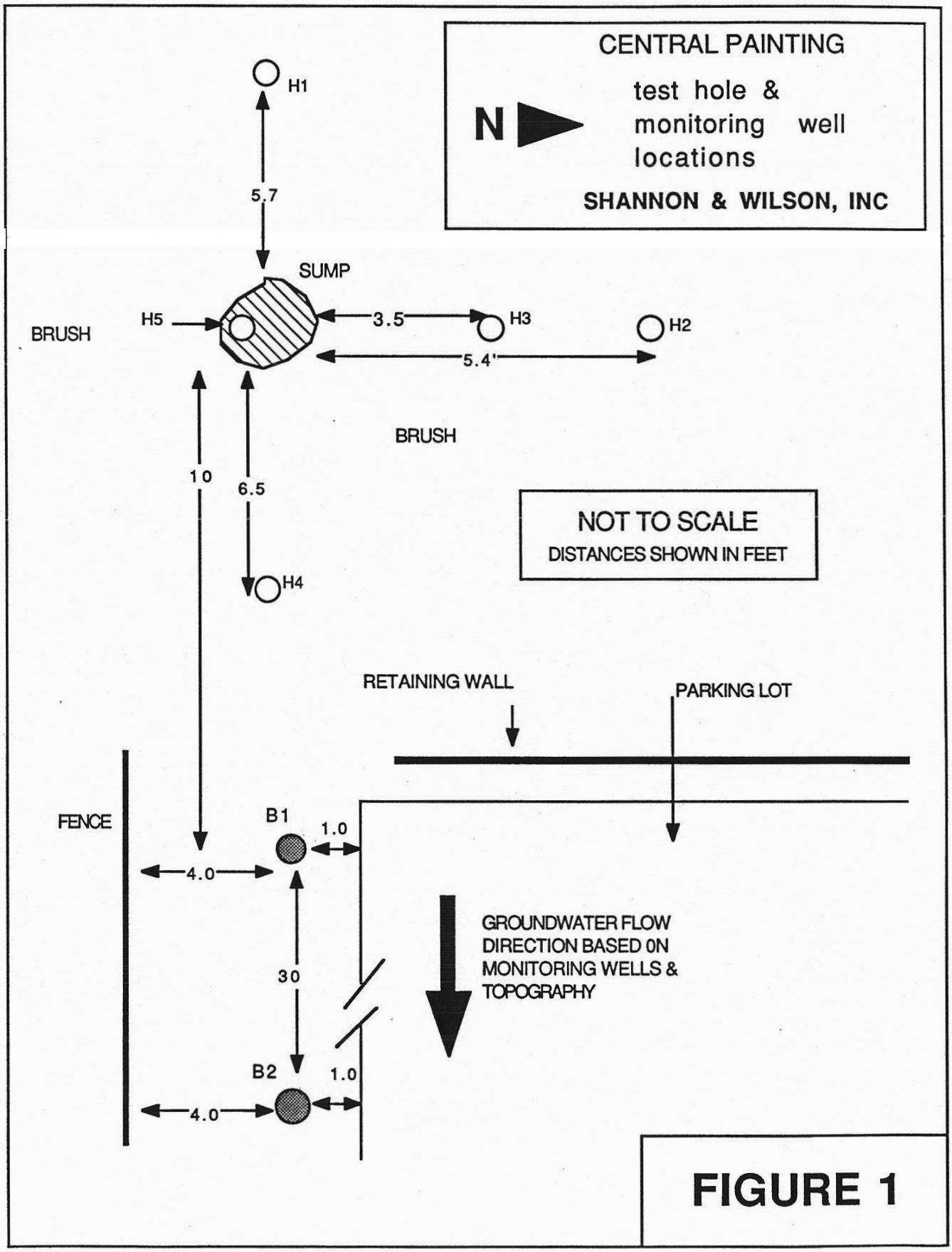
DETAIL OF AREA A REMEDIAL EXCAVATION

FIGURE 3

Source: GeoEngineers 2002b

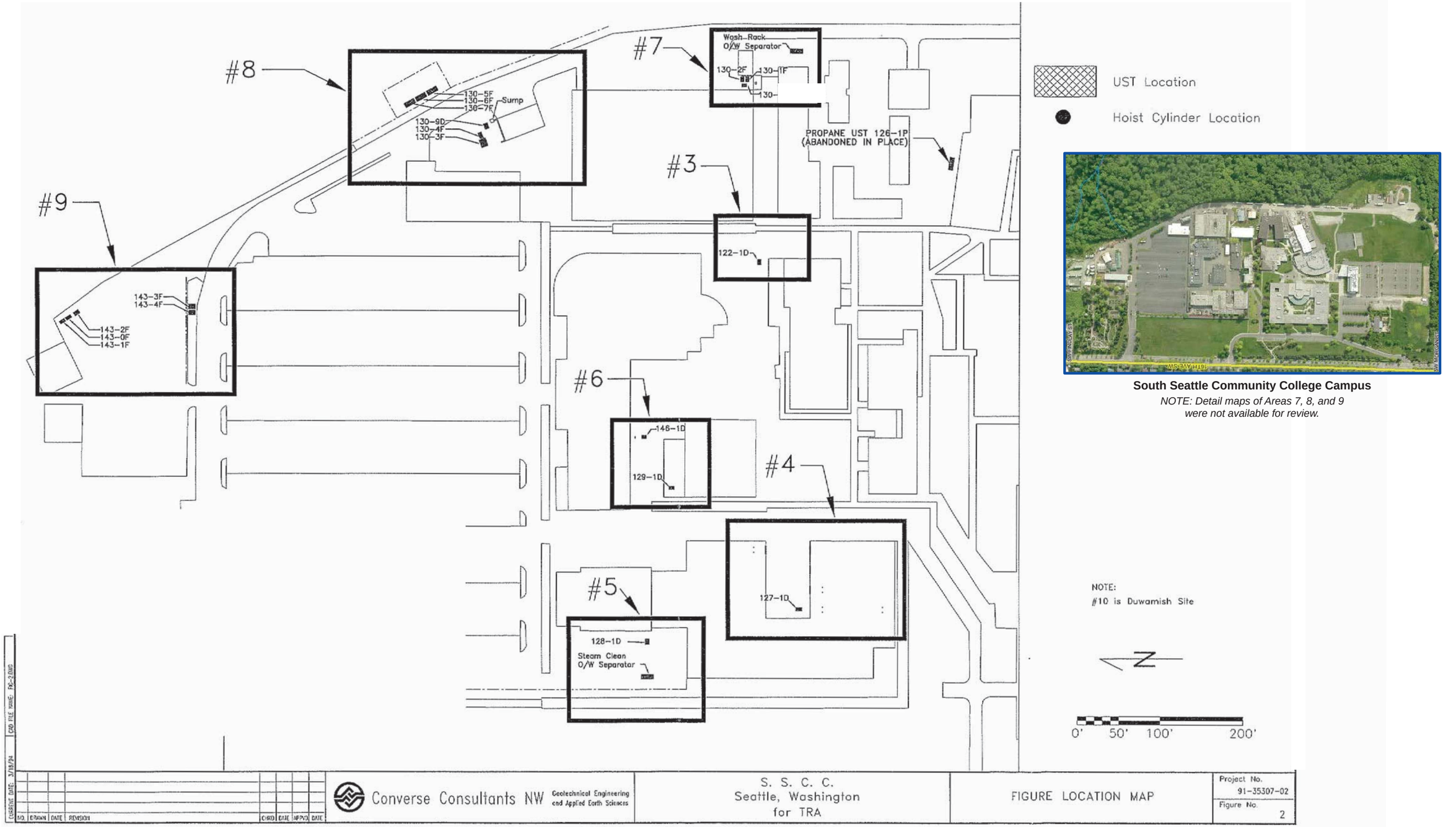
Figure 30d. Seattle Parks and Recreation Westbridge Maintenance Facility Heating Oil UST Remedial Excavation

NOTE: This figure is oriented upside down in relation to Figure 30c.



Source: Shannon & Wilson 1988b

Figure 31. Environmental Investigations Former Central Painting

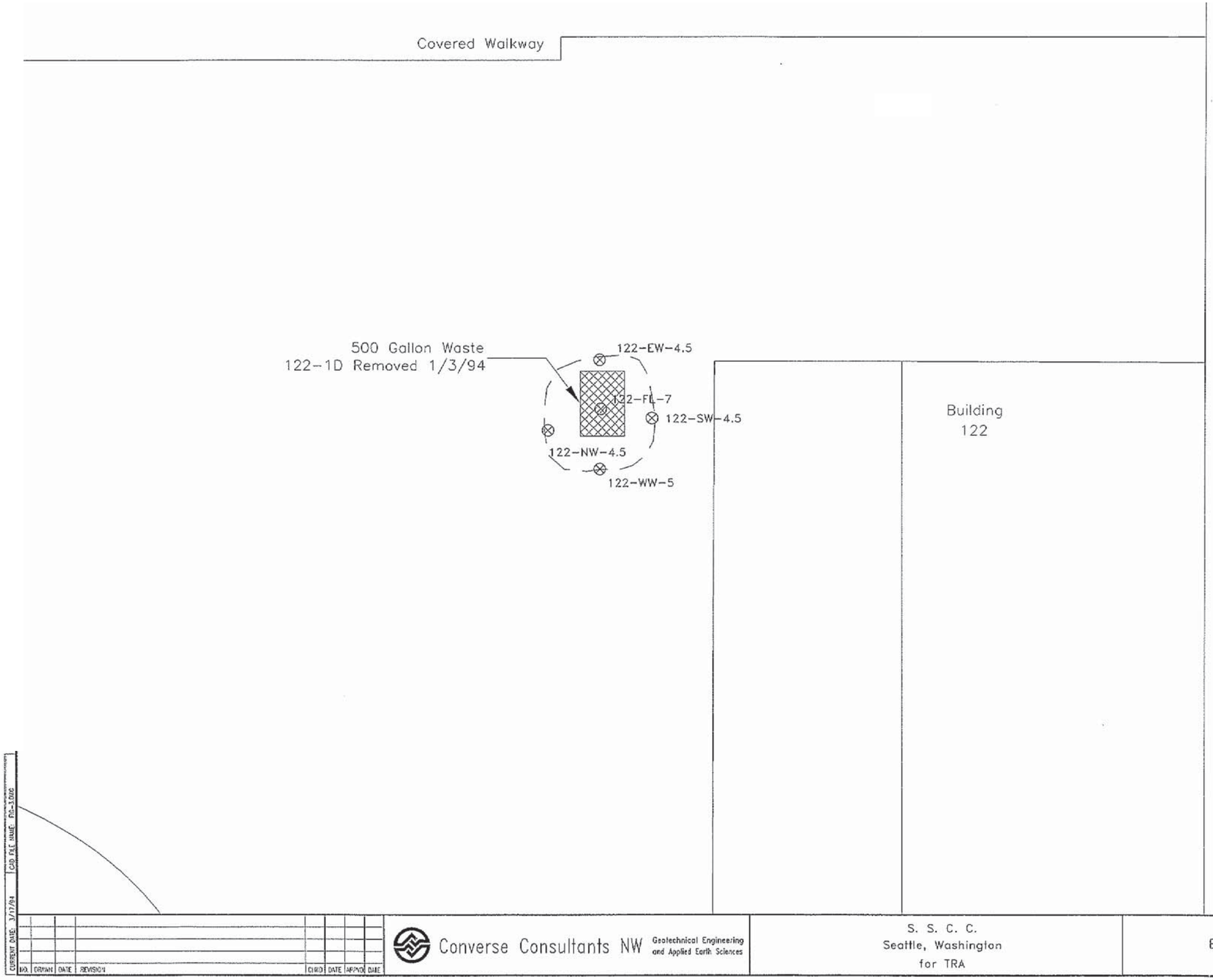


South Seattle Community College Campus

NOTE: Detail maps of Areas 7, 8, and 9 were not available for review.

Source: Converse 1994

Figure 32a. Underground Storage Tank Environmental Assessments
South Seattle Community College



Excavation Limits

⊗ Sample Location

122-SW-4.5

South Seattle Community College Campus, Area 3

N

0' 5 10' 20'

Converse Consultants NW — Geotechnical Engineering and Applied Earth Sciences	S. S. C. C. Seattle, Washington for TRA	BUILDING 122 UST	Project No. 91-35307-02 Figure No. 3

DEPARTMENT OF ECOLOGY
State of Washington

Figure 32b. Underground Storage Tank Environmental Assessments
South Seattle Community College, Area 3

Source: Converse 1994

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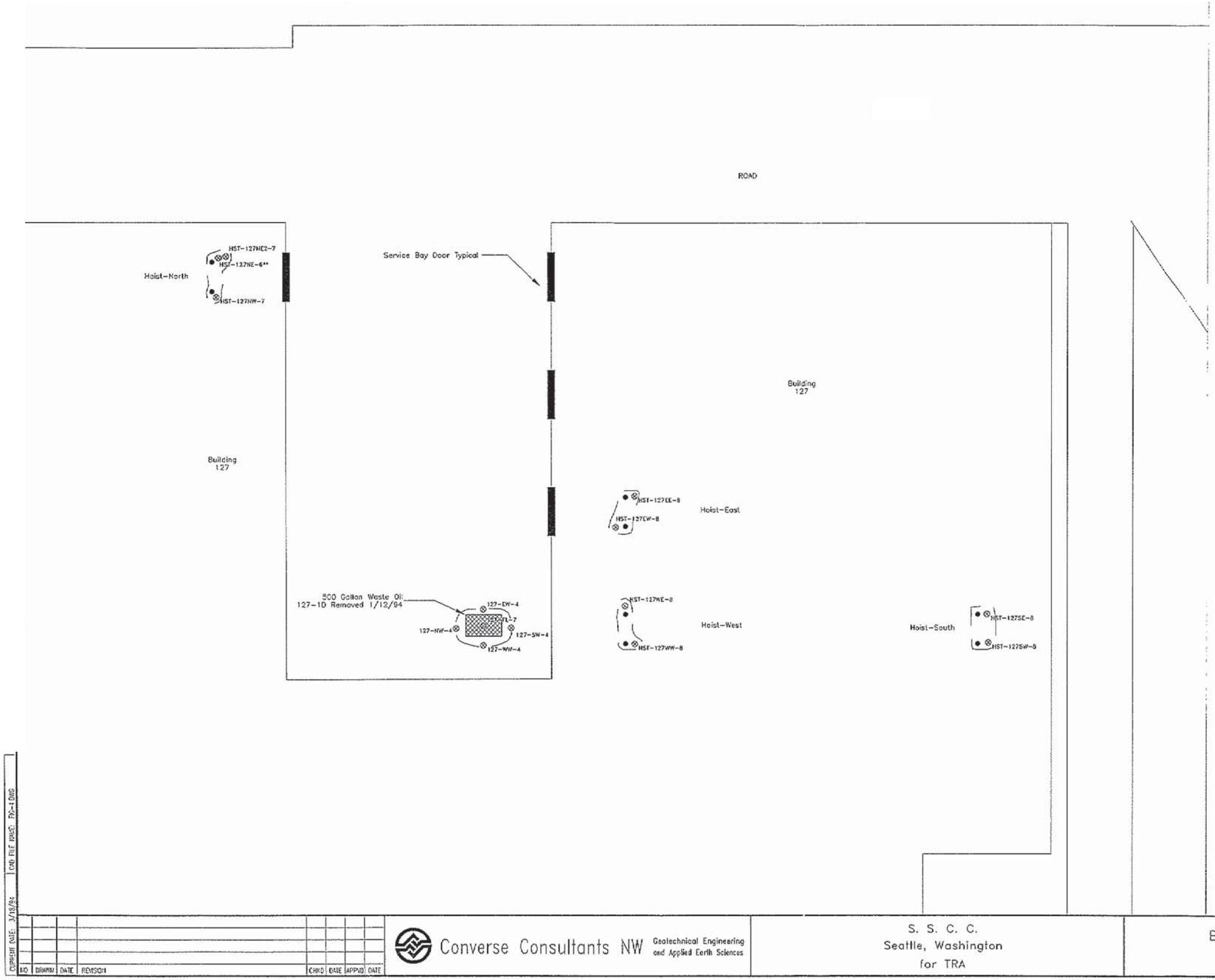
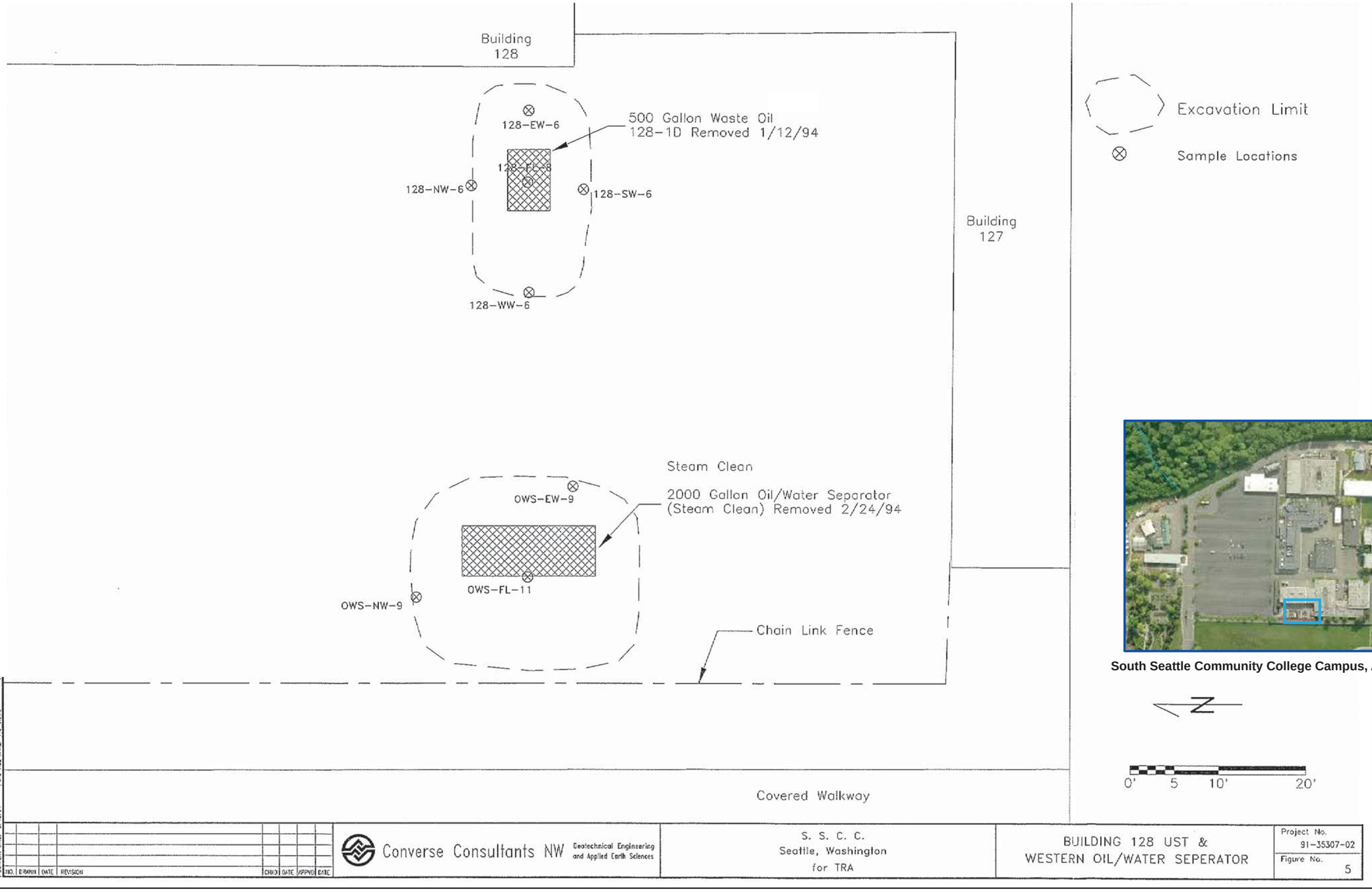


South Seattle Community College Campus, Area 4

Figure 32c. Underground Storage Tank Environmental Assessments
South Seattle Community College, Area 4

Source: Converse 1994



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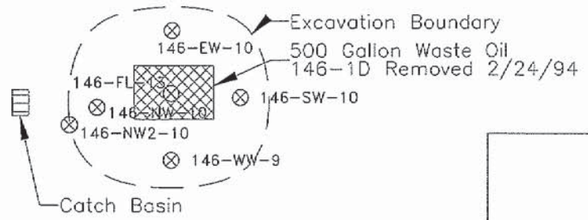
State of Washington

Figure 32d. Underground Storage Tank Environmental Assessments
South Seattle Community College, Area 5

Source: Converse 1994

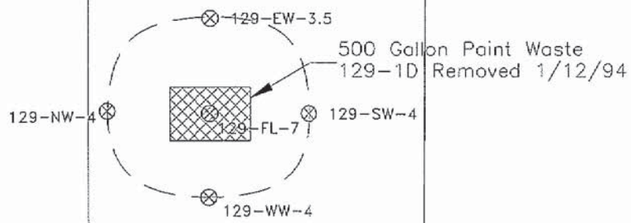
SAIC® From Science to Solutions



Building
146

Canopy

Building
129



Excavation Limits

Sample Location

South Seattle Community College Campus, Area 6

N

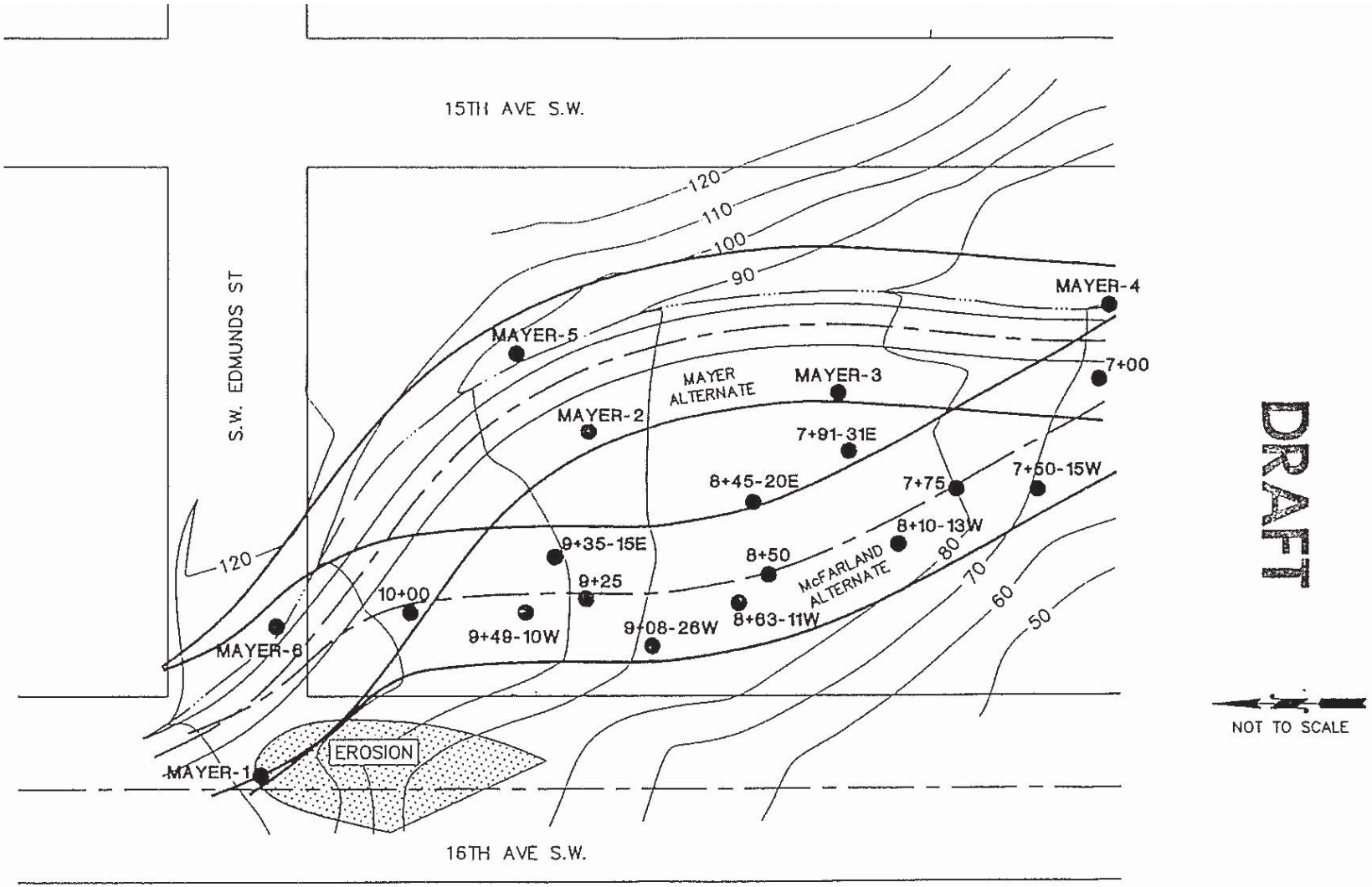
0' 5 10' 20'

NO.	DRAWN	DATE	REVISION	CHKD	DATE	APPVD	DATE	Converse Consultants NW Geotechnical Engineering and Applied Earth Sciences	S. S. C. C. Seattle, Washington for TRA	BUILDING 129 & 146 USTs	Project No. 91-35307-02 Figure No 6

COPYRIGHT DATE: 5/17/94 | CAD FILE NAME: FIG-6.DWG

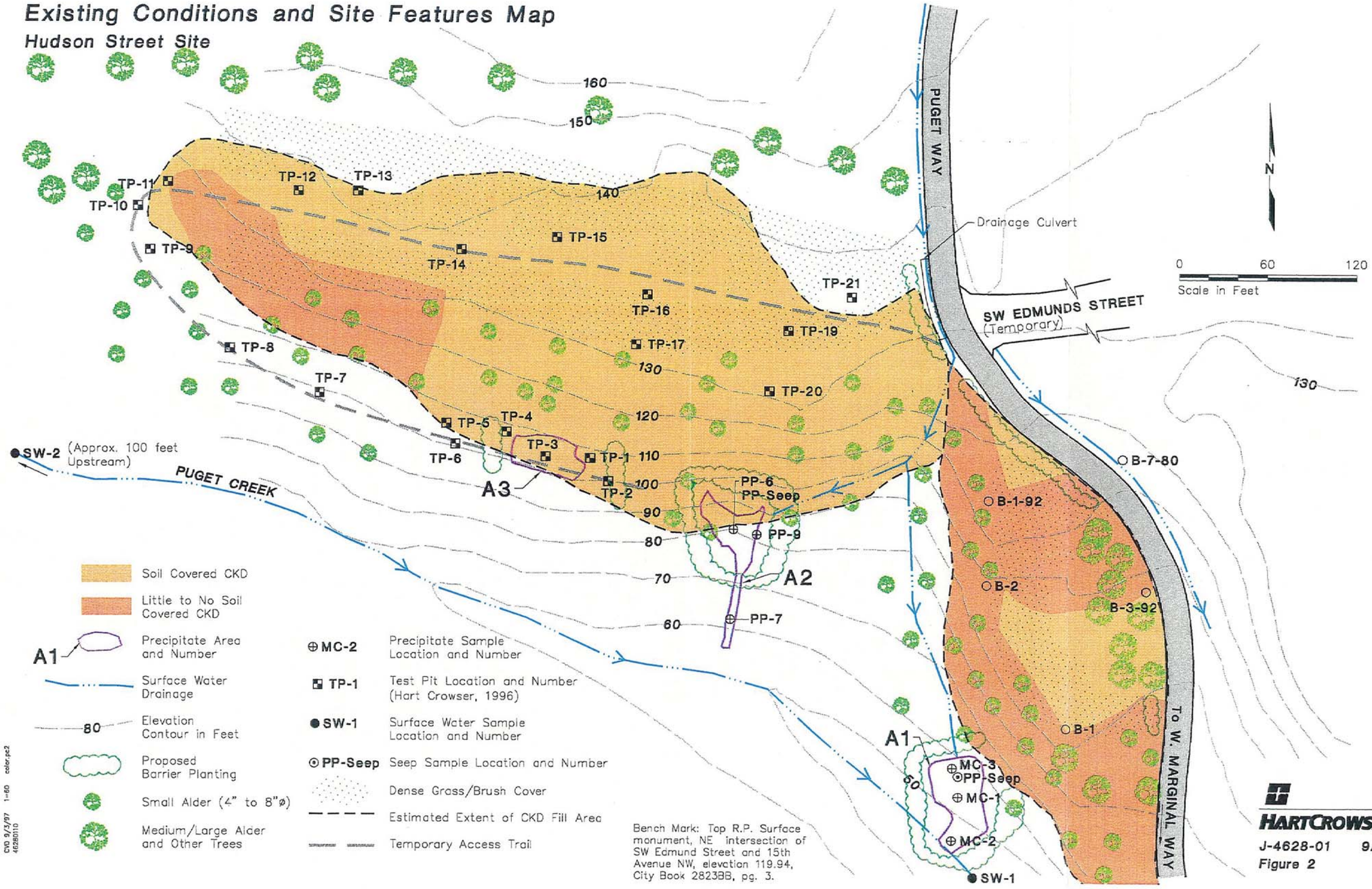
Source: Converse 1994

Figure 32e. Underground Storage Tank Environmental Assessments
South Seattle Community College, Area 6



Source: RZA AGRA 1994b

Figure 33. Cement Kiln Dust Samples, the McFarland Property

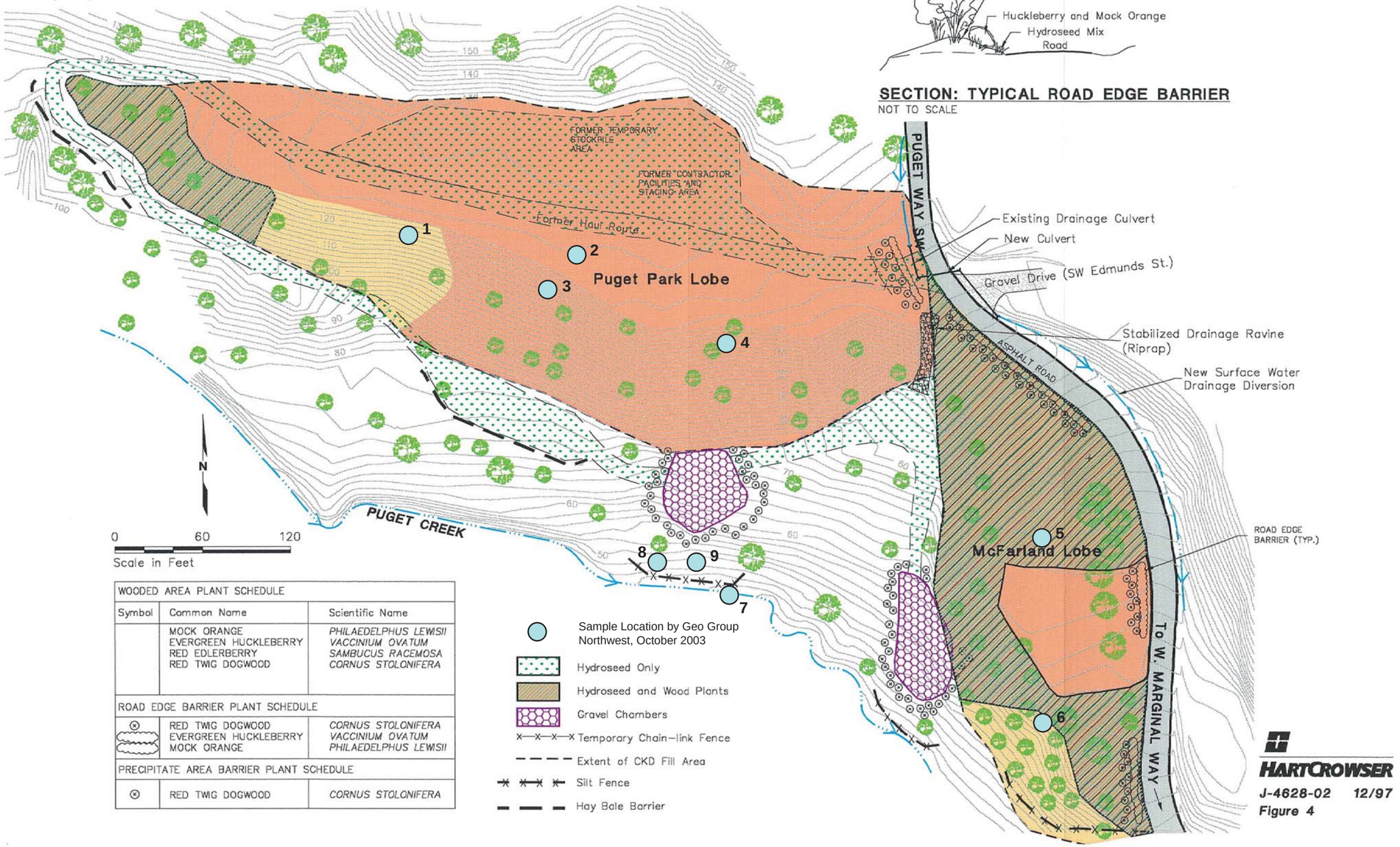


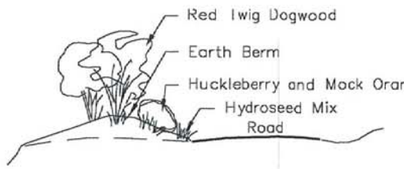
Source: Hart Crowser 1996

Figure 34. Remedial Evaluation, Puget Park and the McFarland Property

Site Condition after Remedial Action - As-Built Revegetation Plan

Hudson Street Site





SECTION: TYPICAL ROAD EDGE BARRIER

NOT TO SCALE

WOODED AREA PLANT SCHEDULE		
Symbol	Common Name	Scientific Name
	MOCK ORANGE EVERGREEN HUCKLEBERRY RED EDLERBERRY RED TWIG DOGWOOD	*PHILAEDELPHUS LEWISII* *VACCINIUM OVATUM* *SAMBUCUS RACEMOSA* *CORNUS STOLONIFERA*
ROAD EDGE BARRIER PLANT SCHEDULE		
⊗	RED TWIG DOGWOOD EVERGREEN HUCKLEBERRY MOCK ORANGE	*CORNUS STOLONIFERA* *VACCINIUM OVATUM* *PHILAEDELPHUS LEWISII*
PRECIPITATE AREA BARRIER PLANT SCHEDULE		
⊗	RED TWIG DOGWOOD	*CORNUS STOLONIFERA*

HARTCROWSER

J-4628-02 12/97

Figure 4

DEPARTMENT OF ECOLOGY
State of Washington

Sources: Hart Crowser 1997b; Geo Group 2003a

Figure 35. Property Condition after Remedial Action, Hudson Street Site (Puget Park and the McFarland Property)

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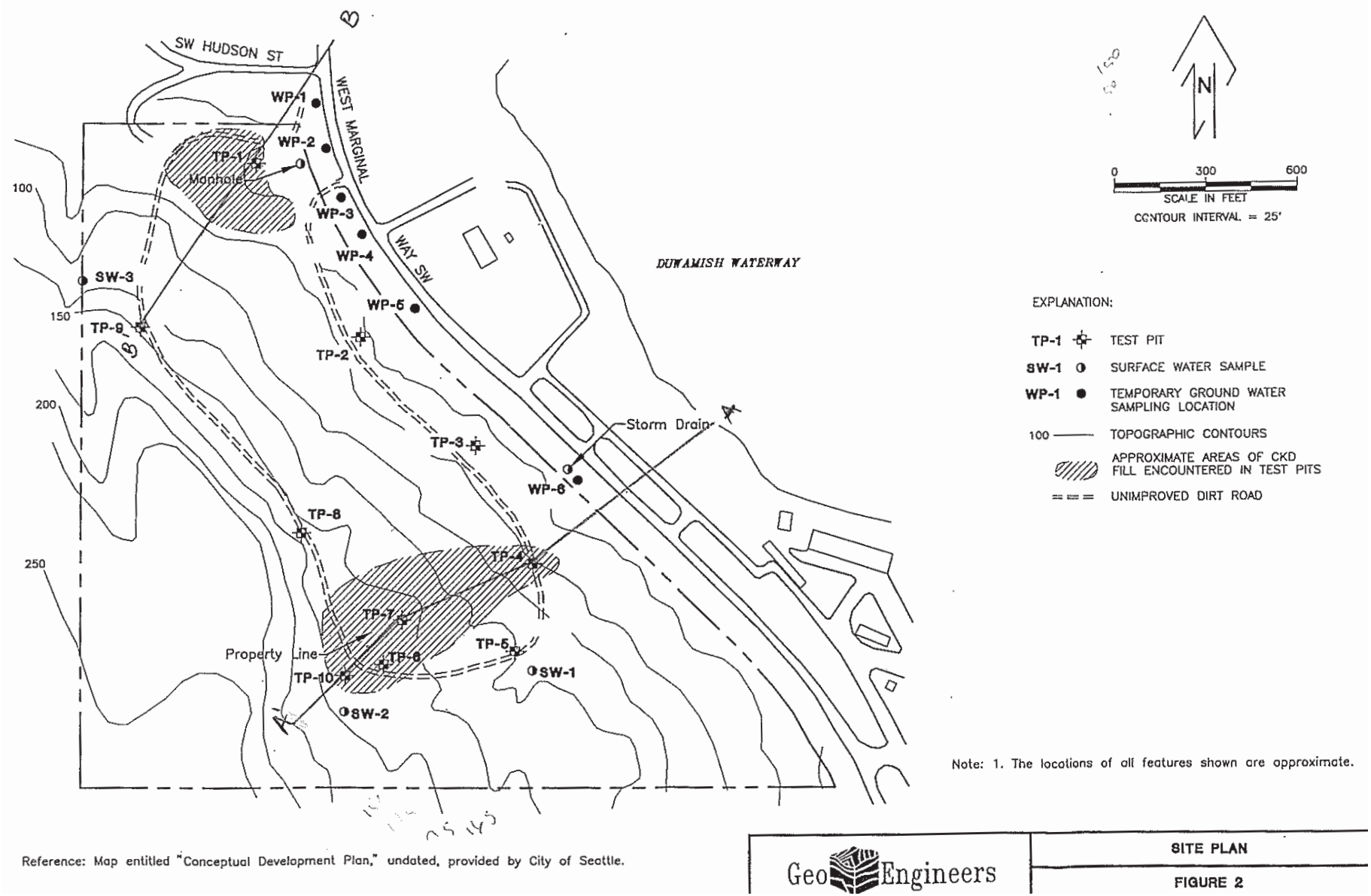

Source: GeoEngineers 1993

Figure 36. Environmental Investigation
Washington Federal Savings & Loan Property

Tables

Table 1
Facilities and Properties within the Spokane Street to Kellogg Island Source Control Area

Map ID[a]	Ecology Facility/ Site ID	Facility Name	Alternate Name(s)	Facility Address	Zip	Active EPA ID No.	Ecology CSCSL	NPDES Permit	KCIW Discharge Permit	Ecology LUST List	Ecology UST List	Ecology NFA	104(e) Request
Adjacent Facilities/Properties													
32	15472775	4800 W Marginal	Terminal 107, Vacant UST 2482 Marginal Way SW	4800 West Marginal Way SW	98106								
1	4091	BASF at United Motor Freight	Riverside Mill	3800 West Marginal Way SW, Bldg 3	98106	●							●
9	44375557	Bird Johnson Port	Boeing Company Terminal 105, Crowley Marine Services Inc T105, Ferguson Enterprises, Seattle Port Terminal 105, Terminal 105	4100 West Marginal Way SW	98106								●
1	10931	Bob's Boat Shop	Riverside Mill	3800 West Marginal Way SW, Bldg 4	98106	●							●
17	97821669	Boeing Company Terminal 105	Birmingham Steel Corporation, Crowley Marine Services Inc T105, Crowley Marine Services Inc Marginal Way, General Recycling of Washington, Seattle Port Terminal 105, Terminal 105	4260 West Marginal Way SW	98106								●
	NA	Burlington Northern Santa Fe Railroad Right-of-Way	BNSF RR ROW	None									
17	24172765	Crowley Marine Services Inc Marginal Way	Bird Johnson Port, Boeing Company Terminal 105, Crowley Marine Services Inc T105, Ferguson Enterprises, General Recycling of Washington, Seattle Port Terminal 105, Terminal 105	4154 West Marginal Way SW	98106								●
12	21179265	Duroboat Manufacturing Company	Terminal 105	1140 SW Dakota Street	98106						●		●
20	83317575	Evergreen Trails	Gray Line of Seattle, Horizon Coach Lines, Northwest Container Services, PACCAR Seaboard Lumber Property, Seattle City Seaboard Lumber former site	4500 West Marginal Way SW	98106	●		●			●		●
9	18675	Ferguson Enterprises Inc.	Bird Johnson Port, Boeing Company Terminal 105, Crowley Marine Services Inc T105, Seattle Port Terminal 105, Terminal 105	4100 West Marginal Way SW	98106								●
12	6869	General Biodiesel Inc	Duroboat Manufacturing Company, Pacific Rendering	4034 West Marginal Way SW	98106								●
3	94648691	General Construction Co Seattle Site	Fletcher General Inc, General Construction Rock Products, Northwest Aggregates, Glacier Northwest, Terminal 103	3838 West Marginal Way SW	98106	●							●
17	18553	General Recycling of Washington	Birmingham Steel Corporation, Nucor Steel, Boeing Company Terminal 105, Crowley Marine Services Inc T105, Crowley Marine Services Inc Marginal Way, Seattle Port Terminal 105, Terminal 105	4260 West Marginal Way SW	98106			●					●

Table 1
Facilities and Properties within the Spokane Street to Kellogg Island Source Control Area

Map ID[a]	Ecology Facility/ Site ID	Facility Name	Alternate Name(s)	Facility Address	Zip	Active EPA ID No.	Ecology CSCSL	NPDES Permit	KCIW Discharge Permit	Ecology LUST List	Ecology UST List	Ecology NFA	104(e) Request
Adjacent Facilities/Properties													
3	2302559	Glacier Northwest, Inc. Seattle	Fletcher General Inc, General Construction Co Seattle Site, General Construction Rock Products, Northwest Aggregates, Terminal 103	3838 West Marginal Way SW	98124	●		●					●
4	NA	Global Diving & Salvage	None	3840 West Marginal Way SW	98106								●
20	75577212	Gray Line of Seattle Marginal Way	Evergreen Trails Inc, Horizon Coach Lines, Northwest Container Services, PACCAR Seaboard Lumber Property, Seattle City Seaboard Lumber former site	4500 West Marginal Way SW	98106								●
9	76453385	HW Blackstock Co	Birmingham Steel Corporation, Nucor Steel, Boeing Company Terminal 105, Crowley Marine Services Inc T105, Crowley Marine Services Inc Marginal Way, Seattle Port Terminal 105, Terminal 105	4000 West Marginal Way SW	98106								●
3	7754458	Northwest Aggregates	Fletcher General Inc, General Construction Rock Products, General Construction Company, Glacier Northwest,Terminal 103	3838 West Marginal Way SW	98106			●		●	●		
12	10287	Pacific Rendering Co Inc	Duroboat Manufacturing Company, Encore Oils, General Biodiesel	4034 West Marginal Way SW	98106				●				●
17	53456833	Puget Sound Tug & Barge Company	Bird Johnson Port, Birmingham Steel Corporation, Boeing Company Terminal 105, Crowley Marine Services Inc T105, Crowley Marine Services Inc Marginal Way, Ferguson Enterprises, General Recycling of Washington, Terminal 105	4620 West Marginal Way SW	98104						●		
20, 21	88471591	Former Seaboard Lumber	Evergreen Trails Inc, Gray Line of Seattle Marginal Way, Horizon Coach Lines, Northwest Container Services, Paccar Seaboard Lumber Property, Seattle City Seaboard Lumber former site	4540 West Marginal Way SW	98106					●	●	●	●
9, 10, 12, 17	66711778	Seattle Port Terminal 105	Bird Johnson Port, Birmingham Steel Corporation, Boeing Company Terminal 105, Crowley Marine Services Inc T105, Crowley Marine Services Inc Marginal Way, Ferguson Enterprises, General Recycling of Washington, Puget Sound Tug & Barge Company, Terminal 105	4260 West Marginal Way SW	98106	●				●	●		●

Table 1
Facilities and Properties within the Spokane Street to Kellogg Island Source Control Area

Map ID[a]	Ecology Facility/ Site ID	Facility Name	Alternate Name(s)	Facility Address	Zip	Active EPA ID No.	Ecology CSCSL	NPDES Permit	KCIW Discharge Permit	Ecology LUST List	Ecology UST List	Ecology NFA	104(e) Request
Adjacent Facilities/Properties													
1	2093	Seattle Steel Industrial Fasteners	Riverside Mill, Industrial Fasteners Plant, Seattle Steel Inc Industrial Fastener Division, SSI Real Estate Co Inc	3800 West Marginal Way SW	98106		●			●	●	●	●
3	NA	Terminal 103	Fletcher General Inc, General Construction Rock Products, General Construction Seattle Site, Northwest Aggregates, Glacier Northwest	3838 West Marginal Way SW	98106								●
32	NA	Terminal 107	4800 W Marginal, Vacant UST 2482 Marginal Way SW	5402 West Marginal Way SW	98106								
1	89431534	United Motor Freight	Riverside Mill	3800 West Marginal Way SW	98106	●							●
32	96168526	Vacant UST 2482 Marginal Way SW	4800 W Marginal, Terminal 107	4842 West Marginal Way SW	98106						●		
Upland Facilities/Properties: SW Dakota Street SD Basin													
7	20843	Active Environmental Inc 16th Ave	None	4001 16th Avenue SW	98106								
14	11229	Aquatic Ent Inc	4101 West Marginal Way SW Business Park	4101 West Marginal Way SW, Ste A6	98106								
8	31119678	Brys Auto Wrecking	Bryans Volkswagon Auto Wrecking, Concrete Restoration, Inc.	4025 West Marginal Way SW	98106		●						
14	NA	Cohesive Garage	4101 West Marginal Way SW Business Park	4101 West Marginal Way SW	98106								
8	9688	Concrete Restoration Inc	Brys Auto Wrecking, Bryans Volkswagon Auto Wrecking	4025 West Marginal Way SW	98106								
14	39342192	Dakota Street	AABLE Auto Wrecking, 4101 West Marginal Way SW Business Park	4101 West Marginal Way SW	98106							●	
2	72321478	Fraser Inc	None	3801 Marginal Place SW	98106								
11	12698	Heathco Intl Inc	Penthouse Drapery (shared building)	4033 16th Avenue SW, Ste B	98106								
14	NA	Metal Shorts	4101 West Marginal Way SW Business Park	4101 West Marginal Way SW	98106								
11	24724	Penthouse Drapery 16th Ave	Heathco Intl Inc. (shared building)	4033 16th Avenue SW, Ste A	98106								
13	23451	Raynproof Roofing	None	4117 16th Avenue SW	98106								
16	59252684	Seattle Parks and Recreation Westbridge Facility	Bank of America Central Services Bldg, Central Services Bldg, Seafirst Bank Central Svcs, Westbridge Building	4209 West Marginal Way SW	98106	●							
15	2438	Strutz Property	None	4201 16th Avenue SW	98106		●					●	
5	20891	Tryg Winquist Construction Co	None	3839 West Marginal Way SW	98106								
14	14517	West Seattle Radiator Service W Marginal Way	4101 West Marginal Way SW Business Park	4101 West Marginal Way SW, A3	98106								
6	2981502	West Seattle Recycling Center	None	3881 16th Avenue SW	98106								

Table 1
Facilities and Properties within the Spokane Street to Kellogg Island Source Control Area

Map ID[a]	Ecology Facility/ Site ID	Facility Name	Alternate Name(s)	Facility Address	Zip	Active EPA ID No.	Ecology CSCSL	NPDES Permit	KCIW Discharge Permit	Ecology LUST List	Ecology UST List	Ecology NFA	104(e) Request
Upland Facilities/Properties: SW Dakota Street SD Basin													
16	2999235	Westbridge Building	Bank of America Central Services Bldg, Central Services Bldg, Seafirst Bank Central Svcs, Seattle Parks and Recreation Westbridge Facility	4201 West Marginal Way SW	98106		●			●	●		
14	1916	Wheelchairs Plus Inc	4101 West Marginal Way SW Business Park	4101 West Marginal Way SW, A2	98106								
Upland Facilities/Properties: SW Idaho Street SD Basin													
35	93395933	17th SW Drums	None	5934 17th Avenue SW	98106								
22	8547	Airclean Technologies Inc	None	4725 West Marginal	98106								
24	2185	Central Painting	Expert Marble & Granite Inc	4749 West Marginal Way SW	98106	●	●						
19	10412	Continental Van Lines	None	4501 West Marginal Way SW	98106								
29	6697	Evergreen Building Products LLC	None	4835 West Marginal Way SW	98106								
28	1184778	Fog Tite Inc	Fog Tite Meter and Seal, Inc.	4819 West Marginal Way SW	98106			●	●				
30	16129	Heath Landscape Services Inc	None	4849 West Marginal Way SW	98106								
37	3121499	King Residence	None	6518 16th Avenue SW	98106		●						
18	9627	New Finishes Inc W Marginal Way	Pacifica Marine Inc. (shared property)	4235 West Marginal Way SW	98106								
34	9581551	Ortega Property	None	5235 18th Avenue SW	98106		●						
18	23704	Pacifica Marine Inc	New Finishes Inc. W Marginal Way (shared property)	4233 West Marginal Way SW	98106								
36	43445813	WA CC South Seattle Community College	South Seattle Community College UST 5966	6000 16th Avenue SW	98106	●				●	●		
23	3858982	West Seattle Estates LLC	None	4699 15th Avenue SW	98106		●					●	
Upland Facilities/Properties: Properties with Cement Kiln Dust Fill													
26	2575	McFarland Property	Hudson St Site, Mayer Hudson St Project, Pigeon Point, Puget Park	SW Edmunds Street & 15th Avenue SW	98016								
27	2479	Puget Park	Hudson St Site, Mayer Hudson St Project, McFarland Property, Pigeon Point	16th Avenue SW	98106		●						
26, 27	6149702	Upper Hudson Street Site	Mayer Hudson St Project, Pigeon Point, Puget Park	4815 15th Avenue SW	98106								
33	NA	Washington Federal Savings & Loan-Cement Kiln Dust site	SW Hudson & West Marginal Way SW Site, Surplus Items Inc.	SW Hudson & West Marginal Way	98106				●				

Table 1
Facilities and Properties within the Spokane Street to Kellogg Island Source Control Area

Map ID[a]	Ecology Facility/ Site ID	Facility Name	Alternate Name(s)	Facility Address	Zip	Active EPA ID No.	Ecology CSCSL	NPDES Permit	KCIW Discharge Permit	Ecology LUST List	Ecology UST List	Ecology NFA	104(e) Request

a - Facilities/properties are identified by the Map ID on Figure 5a and on the figures included in Appendix C.
All facilities are located within the Duwamish West CSO Basin, with the following exceptions: King Residence, McFarland Property, Puget Park, Upper Hudson Street Site, and WA CC South Seattle Community College.
The properties with Cement Kiln Dust Fill are located in the SW Idaho Street SD Basin.

EPA - U.S. Environmental Protection Agency
CSCSL - Confirmed or Suspected Contaminated Sites List
NPDES - National Pollutant Discharge Elimination System
KCIW - King County Industrial Waste
LUST - Leaking Underground Storage Tank
UST - Underground Storage Tank
NFA - No Further Action
104(e) Request - Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Section 104(e) Request for Information Letter was sent to the owners and/or operators of the property/facility

Table 2
Sediment Samples Collected Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Collection Depth (feet)	Analyses							Source
				Metals	SVOCs[a]	PCBs	Dioxins/ Furans	Organo-metals	VOCs	Pesticides	
Harbor Island RI[b]	K-05	09/27/91	Surface	●	●	●		●		●	Windward 2003
Terminal 105 Site Assessment[b]	SS1	11/23/93	Surface	●	●	●			●		Olympus 1994
	SS2	11/17/93		●	●	●			●		
	SS3	11/17/93		●	●	●			●		
Seaboard Lumber-Phase 2 Investigation	SD-1	03/28/96	Surface	●	●	●					Windward 2003
	SD-2	03/28/96		●	●	●					
	SD-3	03/28/96		●	●	●					
	SD-4	03/28/96		●	●	●					
	SD-5	03/28/96		●	●	●					
	SD-6	03/28/96		●	●	●					
	SD-7	03/28/96		●	●	●					
	SD-8	03/28/96		●	●	●					
	SD-9	03/28/96		●	●	●					
	SD-10	03/28/96		●	●	●					
	SD-11	03/28/96		●	●	●					
	SD-12	03/28/96		●	●	●					
	SD-13	03/28/96		●	●	●					
	SD-14	03/28/96		●	●	●					
	SD-15	03/28/96		●	●	●					
	SD-16	03/28/96		●	●	●					
	SD-17	03/28/96		●	●	●					
	SD-18	03/28/96		●	●	●					
	SD-19	03/28/96		●	●	●					
	SD-20	03/28/96		●	●	●					
NOAA Site Characterization[c]	WIT282	11/12/97	Surface			●					Windward 2003
	WIT283	09/16/97				●					
	WIT286	09/15/97				●					
	WIT287	09/15/97				●					
	WIT288	09/15/97				●					
	WIT289	09/15/97				●					
	WIT290	09/16/97				●					
	WIT291	09/16/97				●					
	WIT292	09/16/97				●					
	WIT293	09/18/97				●					
	WIT294	09/16/97				●					
	WIT295	09/16/97				●					
	WIT296	09/18/97				●					
	WIT297	09/19/97				●					
	WIT298	10/17/97				●[d]					
	WIT299	10/14/97				●[d]					
	WST358	11/12/97				●					
	WST359	09/18/97				●					
	WST363	09/15/97				●					
	WST366	09/15/97				●					
	WST367	09/19/97				●					

Table 2
Sediment Samples Collected Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Collection Depth (feet)	Analyses							Source
				Metals	SVOCs[a]	PCBs	Dioxins/ Furans	Organo-metals	VOCs	Pesticides	
NOAA Site Characterization[c], continued	WST368	09/16/97	Surface			●					Windward 2003
	WST370	09/18/97				●					
	WST371	09/18/97				●					
	WST372	10/15/97				●					
	WST373	10/14/97				●[d]					
	WST374	10/14/97				●[d]					
KC CSO Water Quality Assessment	KI-1	09/24/97	Surface	●	●	●		●[e]			Windward 2003
	KI-2	09/24/97		●	●	●		●[e]			
	KI-3	09/24/97		●[f]	●	●		●[e]			
	KI-4	09/24/97		●	●	●		●[e]			
	WQAKELL	03/06/97		●[g]	●	●					
	WQAKELL	03/12/97		●[g]	●	●					
	WQAKELL	03/27/97		●[g]							
	WQAKELL	04/03/97		●[g]	●	●					
	WQAKELL	04/08/97		●[g]							
	WQAKELL	04/17/97		●[g]	●	●					
	WQAKELL	04/24/97		●[g]							
	WQAKELL	05/01/97		●[g]	●	●					
	WQAKELL	05/08/97		●[g]							
Puget Sound Sediment Quality/ NOAA Site Characterization	203	06/22/98	Surface	●	●	●		●[h]		●	Windward 2003
EPA Site Inspection	DR031	08/11/98	Surface	●	●	●					Windward 2003
	DR032	08/11/98		●	●	●					
	DR033	08/11/98		●	●	●	●	●	●	●	
	DR034	08/11/98		●	●	●					
	DR035	08/11/98		●	●	●					
	DR036	08/12/98		●	●	●					
	DR037	08/18/98		●	●	●					
	DR038	09/02/98		●	●	●		●			
	DR039	08/12/98		●	●	●					
	DR040	08/12/98		●	●	●					
	DR041	08/12/98		●	●	●					
	DR042	08/12/98		●	●	●	●	●	●	●	
	DR043	08/12/98		●	●	●					
	DR044	08/12/98		●	●	●					
	DR045	09/14/98		●	●	●					
	DR046	08/12/98		●	●	●	●	●		●	
	DR047	09/14/98		●	●	●	●	●	●		
	DR048	08/12/98		●	●	●					

Table 2
Sediment Samples Collected Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Collection Depth (feet)	Analyses							Source
				Metals	SVOCs[a]	PCBs	Dioxins/ Furans	Organo-metals	VOCs	Pesticides	
EPA Site Inspection, continued	DR066	08/18/98	Surface	●	●	●					Windward 2003
	DR067	08/18/98		●	●	●		●	●	●	
	DR068	08/18/98		●	●	●		●			
	DR069	08/18/98		●	●	●					
	DR070	08/12/98		●	●	●		●			
	DR076	08/24/98		●	●	●					
	DR077	08/24/98		●	●	●					
	DR078	08/24/98		●	●	●					
	DR079	08/24/98		●	●	●					
	DR080	08/24/98		●	●	●					
LDWRI-Benthic	B1a	08/13/04	Surface	●	●	●		●		●	Windward 2005a, 2005b, 2010b
	B2a	08/13/04		●	●	●		●		●	
	B3a	08/26/04		●	●	●		●		●	
	C1	08/26/04		●	●	●		●		●	
	C2-1	08/26/04		●	●	●		●		●	
	C2-2	08/26/04		●	●	●		●		●	
	C3-1	08/27/04		●	●	●		●		●	
	C3-2	08/27/04		●	●	●		●		●	
LDWRI-Surface Sediment Round 1	LDW-SS10	01/17/05	Surface	●	●	●					Windward 2005a, 2005b, 2010b
	LDW-SS12	01/17/05		●	●	●					
	LDW-SS14	01/17/05		●	●	●	●	●			
	LDW-SS15	01/17/05		●	●	●		●			
	LDW-SS23	01/18/05		●	●	●					
	LDW-SS28	01/24/05		●	●	●	●	●		●	
	LDW-SS33	01/26/05		●	●	●		●			
	LDW-SS36	01/24/05		●	●	●	●			●	
LDWRI-Surface Sediment Round 2	LDW-SSC1	03/15/05	Surface	●	●	●				●	Windward 2005a, 2005b, 2010b
	LDW-SS3	03/09/05		●	●	●		●			
	LDW-SS9	03/14/05		●	●	●				●	
	LDW-SS16	03/08/05		●	●	●				●	
	LDW-SS19	03/08/05		●	●	●					
	LDW-SS24	03/14/05		●	●	●					
	LDW-SS29	03/14/05		●	●	●					
	LDW-SS34	03/14/05		●	●	●		●			
LDWRI-Surface Sediment Round 3	LDW-SS306	10/03/06	Surface	●	●	●					Windward 2005a, 2005b, 2010b
	LDW-SS308	10/03/06		●	●	●					
	LDW-SS309	10/03/06		●	●	●					
	LDW-SS310	10/03/06		●	●	●		●			

Table 2
Sediment Samples Collected Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Collection Depth (feet)	Analyses							Source
				Metals	SVOCs[a]	PCBs	Dioxins/ Furans	Organo-metals	VOCs	Pesticides	
LDWRI-Surface Sediment Round 3, continued	LDW-SS311	10/03/06	Surface	●	●	●					Windward 2005a, 2005b, 2010b
	LDW-SS312	10/03/06		●	●	●					
	LDW-SS313	10/04/06		●	●	●					
	LDW-SS314	10/04/06		●	●	●					
	LDW-SS315	10/04/06		●	●	●					
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	0.0 - 1.0	●	●	●					Windward 2007
		02/09/06	1.0 - 2.2	●	●	●					
		02/09/06	2.2 - 4.0	●	●	●					
	LDW-SC6	02/09/06	0.0 - 0.5			●					
		02/09/06	0.0 - 2.0	●	●	●					
		02/09/06	0.5 - 1.0			●					
		02/09/06	1.0 - 1.5			●					
		02/09/06	1.5 - 2.0			●					
		02/09/06	2.0 - 2.5			●					
		02/09/06	2.0 - 4.5	●	●	●					
		02/09/06	2.5 - 3.0			●					
		02/09/06	3.0 - 3.5			●					
		02/09/06	3.5 - 4.0			●					
		02/09/06	4.0 - 4.5			●					
		02/09/06	6.0 - 8.0	●	●	●					
	LDW-SC11	02/13/06	0.0 - 0.8	●	●	●					
		02/13/06	0.8 - 2.0	●	●	●					
		02/13/06	2.0 - 3.4	●	●	●					
		02/13/06	3.4 - 4.1	●	●	●					
	LDW-SC12	02/16/06	0.0 - 0.5			●					
		02/16/06	0.0 - 2.0	●	●	●		●			
		02/16/06	0.5 - 1.0			●					
		02/16/06	1.0 - 1.5			●					
		02/16/06	1.5 - 2.0			●					
		02/16/06	2.0 - 2.5			●					
		02/16/06	2.0 - 4.0	●	●	●		●			
		02/16/06	2.5 - 3.0			●					
		02/16/06	3.0 - 3.5			●					
		02/16/06	3.5 - 4.0			●					
		02/16/06	4.0 - 6.6	●[i]		●					
		02/16/06	6.6 - 8.7	●[i]		●					
	LDW-SC19	02/24/06	0.0 - 1.0	●	●	●	●				
		02/24/06	1.0 - 2.0	●	●	●	●				

Table 2
Sediment Samples Collected Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Collection Depth (feet)	Analyses							Source
				Metals	SVOCs[a]	PCBs	Dioxins/ Furans	Organo-metals	VOCs	Pesticides	
LDW Subsurface Sediment 2006, continued	LDW-SC19	02/24/06	2.0 - 4.0	●	●	●	●				Windward 2007
		02/24/06	4.0 - 6.0			●					
		02/24/06	6.0 - 7.0			●					
		02/24/06	9.0 - 11.9			●					
Ecology SPI	TRI-010	08/08/06	Surface	●	●	●		●			Ecology 2007f
	TRI-015T	08/08/06		●	●	●		●			
	TRI-016	08/08/06		●	●	●		●			
	SPI-108	08/11/06		●	●	●		●			
LDW Dioxin Sampling	LDW-SS509	12/15/09	Surface	●[j]	●	●	●				Windward 2010a
	LDW-SS507	12/16/09					●				
	LDW-SS514	12/16/09					●				
LDW Outfall Sampling	LDW-SS2144-A	03/14/11	Surface	●	●	●					SAIC 2011
	LDW-SS2146-A	03/14/11		●	●	●					
	LDW-SS2147-D	03/14/11		●	●	●					
	LDW-SS2148-A	04/20/11		●	●	●					
	LDW-SS2149-A	04/20/11		●	●	●					
	LDW-SS2150-A	04/20/11		●	●	●	●				
	LDW-SS2157-A	03/24/11		●	●	●	●				
	LDW-SS2232-A	04/20/11		●	●	●					
	LDW-SS2232-D	04/20/11		●	●	●					
	LDW-SS2232-U	04/20/11		●	●	●					
	LDW-SS2233-D	04/20/11		●	●	●					
	LDW-SS2233-U	04/20/11		●	●	●					
	LDW-SSSWCSO-A	04/08/11		●	●	●					
	LDW-SSSWCSO-U	04/08/11		●	●	●					

PCBs - Polychlorinated biphenyls
SVOCs - Semi-volatile organic compounds
VOCs - Volatile organic compounds
a - SVOCs includes polycyclic aromatic hydrocarbons (PAHs) and phthalates
b - Samples also analyzed for petroleum hydrocarbons (Harbor Island RI), heavy oil-range petroleum hydrocarbons (Terminal 105 Site Assessment)
c - Samples also analyzed for polychlorinated terphenyls
d - Samples analyzed for PCB congeners only
e - Samples analyzed for tetrabutyltin only
f - Mercury was not analyzed in this sample
g- Samples also anaylzed for methylmercury
h - Sample analyzed for tributyltin and tripentyltin chloride
i - Mercury was the only metal analyzed in this sample
j - Arsenic was the only metal analyzed in this sample

Table 3
Chemicals Detected Above Screening Levels in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
Metals											
LDWRI-Surface Sediment Round 3	LDW-SS310	10/03/06	Mercury	1.80E+00	1.63		0.41	0.59	mg/kg DW	4.4	3.1
LDWRI-Surface Sediment Round 3	LDW-SS309	10/03/06	Mercury	1.55E+00	2.02		0.41	0.59	mg/kg DW	3.8	2.6
LDWRI-Surface Sediment Round 2	LDW-SS24	03/14/05	Mercury	6.30E-01	5.99		0.41	0.59	mg/kg DW	1.5	1.1
LDWRI-Surface Sediment Round 1	LDW-SS15	01/17/05	Mercury	6.00E-01	1.79		0.41	0.59	mg/kg DW	1.5	1.0
LDWRI-Surface Sediment Round 3	LDW-SS312	10/03/06	Mercury	6.00E-01	4.2		0.41	0.59	mg/kg DW	1.5	1.0
Ecology SPI	TRI-015T	08/08/06	Mercury	5.51E-01	2.16		0.41	0.59	mg/kg DW	1.3	<1
EPA Site Inspection	DR035	08/11/98	Mercury	5.20E-01	2.29		0.41	0.59	mg/kg DW	1.3	<1
EPA Site Inspection	DR044	08/12/98	Mercury	5.00E-01	2.22		0.41	0.59	mg/kg DW	1.2	<1
Terminal 105 Site Assessment	SS1	11/23/93	Zinc	5.30E+02 T	1.9		410	960	mg/kg DW	1.3	<1
LDW Outfall Sampling	LDW-SS2149-A	04/20/11	Zinc	4.78E+02 J	9.22		410	960	mg/kg DW	1.2	<1
Seaboard Lumber-Phase 2 Investigation	SD-10	03/28/96	Zinc	4.40E+02	2.57		410	960	mg/kg DW	1.1	<1
LDWRI-Surface Sediment Round 2	LDW-SS24	03/14/05	Zinc	4.35E+02 J	5.99		410	960	mg/kg DW	1.1	<1
PAHs											
EPA Site Inspection	DR037	08/18/98	Acenaphthene	5.50E-01	2.02	2.72E+01	16	57	mg/kg OC	1.7	<1
EPA Site Inspection	DR033	08/11/98	Acenaphthene	3.10E-01	1.72	1.80E+01	16	57	mg/kg OC	1.1	<1
LDWRI-Surface Sediment Round 2	LDW-SS24[a]	03/14/05	Benzo(a)anthracene	2.60E+00	5.99		1.3	1.6	mg/kg DW	2.0	1.6
LDWRI-Surface Sediment Round 3	LDW-SS312[a]	10/03/06	Benzo(a)anthracene	2.20E+00	4.2		1.3	1.6	mg/kg DW	1.7	1.4
LDW Dioxin Sampling	LDW-SS509[a]	12/15/09	Benzo(a)anthracene	1.80E+00	7.08		1.3	1.6	mg/kg DW	1.4	1.1
LDWRI-Surface Sediment Round 3	LDW-SS312[a]	10/03/06	Benzo(a)pyrene	3.20E+00	4.2		1.6	3.0	mg/kg DW	2.0	1.1
LDWRI-Surface Sediment Round 2	LDW-SS24[a]	03/14/05	Benzo(a)pyrene	2.10E+00	5.99		1.6	3.0	mg/kg DW	1.3	<1
LDW Dioxin Sampling	LDW-SS509[a]	12/15/09	Benzo(a)pyrene	2.10E+00	7.08		1.6	3.0	mg/kg DW	1.3	<1
LDWRI-Surface Sediment Round 3	LDW-SS312[a]	10/03/06	Benzo(g,h,i)perylene	1.60E+00	4.2		0.67	0.72	mg/kg DW	2.4	2.2
LDW Dioxin Sampling	LDW-SS509[a]	12/15/09	Benzo(g,h,i)perylene	1.40E+00	7.08		0.67	0.72	mg/kg DW	2.1	1.9
LDWRI-Surface Sediment Round 2	LDW-SS24[a]	03/14/05	Benzo(g,h,i)perylene	1.10E+00	5.99		0.67	0.72	mg/kg DW	1.6	1.5
EPA Site Inspection	DR033	08/11/98	Benzo(g,h,i)perylene	6.20E-01	1.72	3.60E+01	31	78	mg/kg OC	1.2	<1
LDWRI-Surface Sediment Round 3	LDW-SS312[a]	10/03/06	Benzofluoranthenes (total-calc'd)	4.70E+00	4.2		3.2	3.6	mg/kg DW	1.5	1.3
LDWRI-Surface Sediment Round 2	LDW-SS24[a]	03/14/05	Benzofluoranthenes (total-calc'd)	3.80E+00	5.99		3.2	3.6	mg/kg DW	1.2	1.1
EPA Site Inspection	DR044	08/12/98	Chrysene	4.60E+00	2.08	2.21E+02	110	460	mg/kg OC	2.0	<1
LDWRI-Surface Sediment Round 2	LDW-SS24[a]	03/14/05	Chrysene	3.60E+00	5.99		1.4	2.8	mg/kg DW	2.6	1.3
LDWRI-Surface Sediment Round 3	LDW-SS312[a]	10/03/06	Chrysene	3.00E+00	4.2		1.4	2.8	mg/kg DW	2.1	1.1
LDW Dioxin Sampling	LDW-SS509[a]	12/15/09	Chrysene	2.60E+00	7.08		1.4	2.8	mg/kg DW	1.9	<1
EPA Site Inspection	DR033	08/11/98	Chrysene	2.40E+00	1.72	1.40E+02	110	460	mg/kg OC	1.3	<1
EPA Site Inspection	DR040[a]	08/12/98	Chrysene	2.10E+00	4.69		1.4	2.8	mg/kg DW	1.5	<1
LDWRI-Surface Sediment Round 3	LDW-SS311[a]	10/03/06	Chrysene	1.80E+00	4.36		1.4	2.8	mg/kg DW	1.3	<1
LDW Dioxin Sampling	LDW-SS509[a]	12/15/09	Dibenzo(a,h)anthracene	5.00E-01	7.08		0.23	0.54	mg/kg DW	2.2	<1
LDWRI-Surface Sediment Round 2	LDW-SS24[a]	03/14/05	Dibenzo(a,h)anthracene	3.50E-01	5.99		0.23	0.54	mg/kg DW	1.5	<1
LDWRI-Surface Sediment Round 3	LDW-SS312[a]	10/03/06	Dibenzo(a,h)anthracene	3.20E-01	4.2		0.23	0.54	mg/kg DW	1.4	<1
EPA Site Inspection	DR044	08/12/98	Fluoranthene	2.30E+01	2.08	1.11E+03	160	1,200	mg/kg OC	6.9	<1
EPA Site Inspection	DR038	09/02/98	Fluoranthene	7.80E+00	2.62	2.98E+02	160	1,200	mg/kg OC	1.9	<1
EPA Site Inspection	DR033	08/11/98	Fluoranthene	6.40E+00	1.72	3.72E+02	160	1,200	mg/kg OC	2.3	<1
LDWRI-Surface Sediment Round 2	LDW-SS24[a]	03/14/05	Fluoranthene	5.20E+00	5.99		1.7	2.5	mg/kg DW	3.1	2.1

Table 3
Chemicals Detected Above Screening Levels in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
LDWRI-Surface Sediment Round 3	LDW-SS312[a]	10/03/06	Fluoranthene	4.90E+00	4.2		1.7	2.5	mg/kg DW	2.9	2.0
LDW Dioxin Sampling	LDW-SS509[a]	12/15/09	Fluoranthene	4.10E+00	7.08		1.7	2.5	mg/kg DW	2.4	1.6
LDWRI-Surface Sediment Round 3	LDW-SS311[a]	10/03/06	Fluoranthene	3.90E+00	4.36		1.7	2.5	mg/kg DW	2.3	1.6
Terminal 105 Site Assessment	SS1	11/23/93	Fluoranthene	3.70E+00	1.9	1.95E+02	160	1,200	mg/kg OC	1.2	1.5
EPA Site Inspection	DR037	08/18/98	Fluoranthene	3.60E+00	2.02	1.78E+02	160	1,200	mg/kg OC	1.1	<1
EPA Site Inspection	DR040[a]	08/12/98	Fluoranthene	2.90E+00	4.69		1.7	2.5	mg/kg DW	1.7	1.2
LDW Outfall Sampling	LDW-SSSWCSO-U	04/08/11	Fluoranthene	2.90E+00	1.2	2.42E+02	160	1,200	mg/kg OC	1.5	<1
EPA Site Inspection	DR047	09/14/98	Fluoranthene	2.50E+00	1.4	1.79E+02	160	1,200	mg/kg OC	1.1	<1
EPA Site Inspection	DR037	08/18/98	Fluorene	8.80E-01	2.02	4.36E+01	23	79	mg/kg OC	1.9	<1
EPA Site Inspection	DR033	08/11/98	Fluorene	5.70E-01	1.72	3.31E+01	23	79	mg/kg OC	1.4	<1
LDWRI-Surface Sediment Round 3	LDW-SS312[a]	10/03/06	Indeno(1,2,3-cd)pyrene	1.60E+00	4.2		0.6	0.69	mg/kg DW	2.7	2.3
LDWRI-Surface Sediment Round 2	LDW-SS24[a]	03/14/05	Indeno(1,2,3-cd)pyrene	1.20E+00	5.99		0.6	0.69	mg/kg DW	2.0	1.7
LDW Dioxin Sampling	LDW-SS509[a]	12/15/09	Indeno(1,2,3-cd)pyrene	1.20E+00	7.08		0.6	0.69	mg/kg DW	2.0	1.7
EPA Site Inspection	DR033	08/11/98	Indeno(1,2,3-cd)pyrene	7.70E-01	1.72	4.48E+01	34	88	mg/kg OC	1.3	<1
EPA Site Inspection	DR038	09/02/98	Phenanthrene	3.60E+00	2.62	1.37E+02	100	480	mg/kg OC	1.4	<1
EPA Site Inspection	DR037	08/18/98	Phenanthrene	3.50E+00	2.02	1.73E+02	100	480	mg/kg OC	1.7	<1
LDWRI-Surface Sediment Round 3	LDW-SS312[a]	10/03/06	Phenanthrene	3.40E+00	4.2		1.5	5.4	mg/kg DW	2.3	<1
EPA Site Inspection	DR044	08/12/98	Phenanthrene	3.00E+00	2.08	1.44E+02	100	480	mg/kg OC	1.4	<1
EPA Site Inspection	DR033	08/11/98	Phenanthrene	2.60E+00	1.72	1.51E+02	100	480	mg/kg OC	1.5	<1
LDW Outfall Sampling	LDW-SSSWCSO-U	04/08/11	Phenanthrene	2.20E+00	1.2	1.83E+02	100	480	mg/kg OC	1.8	<1
LDW Dioxin Sampling	LDW-SS509[a]	12/15/09	Phenanthrene	2.20E+00	7.08		1.5	5.4	mg/kg DW	1.5	<1
LDWRI-Surface Sediment Round 2	LDW-SS24[a]	03/14/05	Phenanthrene	1.90E+00	5.99		1.5	5.4	mg/kg DW	1.3	<1
LDWRI-Surface Sediment Round 3	LDW-SS312[a]	10/03/06	Pyrene	4.80E+00	4.2		2.6	3.3	mg/kg DW	1.8	1.5
LDWRI-Surface Sediment Round 2	LDW-SS24[a]	03/14/05	Pyrene	4.40E+00	5.99		2.6	3.3	mg/kg DW	1.7	1.3
LDW Dioxin Sampling	LDW-SS509[a]	12/15/09	Pyrene	4.00E+00	7.08		2.6	3.3	mg/kg DW	1.5	1.2
LDWRI-Surface Sediment Round 3	LDW-SS311[a]	10/03/06	Pyrene	2.80E+00	4.36		2.6	3.3	mg/kg DW	1.1	<1
EPA Site Inspection	DR044	08/12/98	Total HPAH (calc'd)	5.08E+01	2.08	2.44E+03	960	5,300	mg/kg OC	2.5	<1
LDWRI-Surface Sediment Round 3	LDW-SS312[a]	10/03/06	Total HPAH (calc'd)	2.63E+01	4.2		12	17	mg/kg DW	2.2	1.5
LDWRI-Surface Sediment Round 2	LDW-SS24[a]	03/14/05	Total HPAH (calc'd)	2.44E+01	5.99		12	17	mg/kg DW	2.0	1.4
LDW Dioxin Sampling	LDW-SS509[a]	12/15/09	Total HPAH (calc'd)	2.09E+01 J	7.08		12	17	mg/kg DW	1.7	1.2
EPA Site Inspection	DR033	08/11/98	Total HPAH (calc'd)	1.96E+01	1.72	1.14E+03	960	5,300	mg/kg OC	1.2	<1
LDWRI-Surface Sediment Round 3	LDW-SS311[a]	10/03/06	Total HPAH (calc'd)	1.41E+01	4.36		12	17	mg/kg DW	1.2	<1
Phthalates											
EPA Site Inspection	DR076[a]	08/24/98	Bis(2-ethylhexyl)phthalate	6.10E+00	0.1	6.10E+03	1.3	1.9	mg/kg DW	4.7	3.2
LDW Outfall Sampling	LDW-SS2150-A[a]	04/20/11	Bis(2-Ethylhexyl)phthalate	1.70E+00	9.22		1.3	1.9	mg/kg DW	1.3	<1
EPA Site Inspection	DR079	08/24/98	Bis(2-ethylhexyl)phthalate	1.10E+00	2.18	5.05E+01	47	78	mg/kg OC	1.1	<1
Terminal 105 Site Assessment	SS1	11/23/93	Bis(2-Ethylhexyl)phthalate	1.00E+00 J	1.9	5.26E+01	47	78	mg/kg OC	1.1	<1
LDW Outfall Sampling	LDW-SSSWCSO-U	04/08/11	Bis(2-Ethylhexyl)phthalate	6.60E-01	1.2	5.50E+01	47	78	mg/kg OC	1.2	<1
LDW Outfall Sampling	LDW-SS2150-A[a]	04/20/11	Butyl benzyl phthalate	2.20E-01 J	9.22		0.063	0.9	mg/kg DW	3.5	<1
Terminal 105 Site Assessment	SS1	11/23/93	Butyl benzyl phthalate	1.50E-01 J	1.9	7.89E+00	4.9	64	mg/kg OC	1.6	<1
EPA Site Inspection	DR043[a]	08/12/98	Butyl benzyl phthalate	1.00E-01	4.48		0.063	0.9	mg/kg DW	1.6	<1

Table 3
Chemicals Detected Above Screening Levels in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
Phenols											
Ecology SPI	SPI-108	08/11/06	2,4-Dimethylphenol	5.20E-02	1.55		0.029	0.029	mg/kg DW	1.8	1.8
Ecology SPI	TRI-010	08/08/06	2,4-Dimethylphenol	4.50E-02	2.2		0.029	0.029	mg/kg DW	1.6	1.6
Ecology SPI	TRI-016	08/08/06	2,4-Dimethylphenol	4.40E-02	2.38		0.029	0.029	mg/kg DW	1.5	1.5
LDWRI-Benthic	C2-2	08/26/04	4-Methylphenol	1.60E-01	1.06		0.067	0.067	mg/kg DW	2.4	2.4
Harbor Island RI	K-05	09/27/91	Phenol	2.00E+00 J	1.6		0.42	1.2	mg/kg DW	4.8	1.7
EPA Site Inspection	DR047	09/14/98	Phenol	7.40E-01	1.4		0.42	1.2	mg/kg DW	1.8	<1
LDWRI-Benthic	C1	08/26/04	Phenol	6.00E-01	0.47		0.42	1.2	mg/kg DW	1.4	<1
Ecology SPI	TRI-016	08/08/06	Phenol	5.73E-01	2.38		0.42	1.2	mg/kg DW	1.4	<1
LDWRI-Benthic	C2-1	08/26/04	Phenol	4.50E-01	1.82		0.42	1.2	mg/kg DW	1.1	<1
Other SVOCs											
Puget Sound Sediment Quality/ NOAA Site Characterization	203	06/22/98	Benzoic acid	5.33E+00 J	1.5		0.65	0.65	mg/kg DW	8.2	8.2
LDWRI-Surface Sediment Round 2	LDW-SS24	03/14/05	Benzyl alcohol	6.70E-01	5.99		0.057	0.073	mg/kg DW	12	9.2
LDW Outfall Sampling	LDW-SS2157-A	03/24/11	Benzyl alcohol	2.90E-01	1.81		0.057	0.073	mg/kg DW	5.1	4.0
LDW Outfall Sampling	LDW-SSSWCSO-A	04/08/11	Benzyl alcohol	2.70E-01	2.69		0.057	0.073	mg/kg DW	4.7	3.7
LDW Outfall Sampling	LDW-SSSWCSO-U	04/08/11	Benzyl alcohol	2.40E-01	1.2		0.057	0.073	mg/kg DW	4.2	3.3
LDW Outfall Sampling	LDW-SS2149-A	04/20/11	Benzyl alcohol	1.00E-01	9.22		0.057	0.073	mg/kg DW	1.8	1.4
Terminal 105 Site Assessment	SS2	11/17/93	Benzyl alcohol	7.30E-02 J	0.98		0.057	0.073	mg/kg DW	1.3	1.0
Ecology SPI	TRI-016	08/08/06	Benzyl alcohol	6.40E-02	2.38		0.057	0.073	mg/kg DW	1.1	<1
EPA Site Inspection	DR037	08/18/98	Dibenzofuran	4.10E-01	2.02	2.03E+01	15	58	mg/kg OC	1.4	<1
PCBs											
EPA Site Inspection	DR044	08/12/98	PCBs (total calc'd)	1.93E+00	2.22	8.70E+01	12	65	mg/kg OC	7.3	1.3
LDWRI-Surface Sediment Round 3	LDW-SS312[a]	10/03/06	PCBs (total calc'd)	1.01E+00	4.2		0.13	1.0	mg/kg DW	7.8	1.0
EPA Site Inspection	DR040[a]	08/12/98	PCBs (total calc'd)	7.76E-01	4.69		0.13	1.0	mg/kg DW	6.0	<1
NOAA Site Characterization	WIT282[a]	11/12/97	PCBs (total calc'd)	7.70E-01	4.64		0.13	1.0	mg/kg DW	5.9	<1
NOAA Site Characterization	WIT286	09/15/97	PCBs (total calc'd)	6.60E-01	3.68	1.79E+01	12	65	mg/kg OC	1.5	<1
LDW Dioxin Sampling	LDW-SS509[a]	12/15/09	PCBs (total calc'd)	5.60E-01	7.08		0.13	1.0	mg/kg DW	4.3	<1
NOAA Site Characterization	WIT290	09/16/97	PCBs (total calc'd)	5.40E-01	1.67	3.23E+01	12	65	mg/kg OC	2.7	<1
EPA Site Inspection	DR035	08/11/98	PCBs (total calc'd)	5.16E-01 J	2.29	2.25E+01	12	65	mg/kg OC	1.9	<1
Ecology SPI	SPI-108	08/11/06	PCBs (total calc'd)	4.40E-01 J	1.55	2.84E+01	12	65	mg/kg OC	2.4	<1
LDWRI-Surface Sediment Round 3	LDW-SS311[a]	10/03/06	PCBs (total calc'd)	3.70E-01	4.36		0.13	1.0	mg/kg DW	2.8	<1
LDWRI-Surface Sediment Round 3	LDW-SS310	10/03/06	PCBs (total calc'd)	3.70E-01	1.63	2.27E+01	12	65	mg/kg OC	1.9	<1
LDWRI-Surface Sediment Round 3	LDW-SS309	10/03/06	PCBs (total calc'd)	3.70E-01	2.02	1.83E+01	12	65	mg/kg OC	1.5	<1
EPA Site Inspection	DR034	08/11/98	PCBs (total calc'd)	3.47E-01 J	1.84	1.89E+01	12	65	mg/kg OC	1.6	<1
EPA Site Inspection	DR031	08/11/98	PCBs (total calc'd)	3.42E-01	2.07	1.65E+01	12	65	mg/kg OC	1.4	<1
NOAA Site Characterization	WIT288	09/15/97	PCBs (total calc'd)	3.40E-01	1.66	2.05E+01	12	65	mg/kg OC	1.7	<1
EPA Site Inspection	DR038	09/02/98	PCBs (total calc'd)	3.36E-01 J	2.62	1.28E+01	12	65	mg/kg OC	1.1	<1
NOAA Site Characterization	WIT283	09/16/97	PCBs (total calc'd)	3.30E-01	1.77	1.86E+01	12	65	mg/kg OC	1.6	<1
NOAA Site Characterization	WIT283	09/16/97	PCBs (total calc'd)	3.23E-01	1.77	1.82E+01	12	65	mg/kg OC	1.5	<1
NOAA Site Characterization	WIT283	09/16/97	PCBs (total calc'd)	3.20E-01	1.77	1.81E+01	12	65	mg/kg OC	1.5	<1
LDWRI-Surface Sediment Round 2	LDW-SS16	03/08/05	PCBs (total calc'd)	3.20E-01	2.11	1.52E+01	12	65	mg/kg OC	1.3	<1
NOAA Site Characterization	WST370	09/18/97	PCBs (total calc'd)	3.00E-01	1.72	1.74E+01	12	65	mg/kg OC	1.5	<1
LDWRI-Surface Sediment Round 2	LDW-SS24[a]	03/14/05	PCBs (total calc'd)	2.90E-01	5.99		0.13	1.0	mg/kg DW	2.2	<1

Table 3
Chemicals Detected Above Screening Levels in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
LDWRI-Surface Sediment Round 3	LDW-SS308	10/03/06	PCBs (total calc'd)	2.80E-01	1.86	1.51E+01	12	65	mg/kg OC	1.3	<1
EPA Site Inspection	DR043[a]	08/12/98	PCBs (total calc'd)	2.70E-01	4.48		0.13	1.0	mg/kg DW	2.1	<1
NOAA Site Characterization	WIT291	09/16/97	PCBs (total calc'd)	2.30E-01	0.6	3.83E+01	12	65	mg/kg OC	3.2	<1
EPA Site Inspection	DR033	08/11/98	PCBs (total calc'd)	2.25E-01 J	1.72	1.31E+01	12	65	mg/kg OC	1.1	<1
NOAA Site Characterization	WIT287	09/15/97	PCBs (total calc'd)	2.10E-01	1.17	1.79E+01	12	65	mg/kg OC	1.5	<1
Puget Sound Sediment Quality/ NOAA Site Characterization	203	06/22/98	PCBs (total calc'd)	2.07E-01	1.5	1.38E+01	12	65	mg/kg OC	1.2	<1
EPA Site Inspection	DR042[a]	08/12/98	PCBs (total calc'd)	1.82E-01	9.23		0.13	1.0	mg/kg DW	1.4	<1
LDW Outfall Sampling	LDW-SS2150-A[a]	04/20/11	PCBs (total calc'd)	1.50E-01	9.22		0.13	1	mg/kg DW	1.2	<1

mg/kg - Milligram per kilogram
DW - Dry weight
TOC - Total Organic Carbon
OC - Organic carbon normalized
SQS - SMS Sediment Quality Standard
CSL - SMS Cleanup Screening Level
SMS - Sediment Management Standard (Washington Administrative Code 173-204)
PAHs - Polycyclic aromatic hydrocarbons
SVOCs - Semi-volatile organic compounds
PCB - Polychlorinated biphenyl
J - Estimated value between the method detection limit and the laboratory reporting limit

Table presents detected chemicals only.

Exceedance factors are the ratio of the detected concentrations to the CSL or SQS; exceedance factors are shown only if they are greater than 1.

Sampling events are listed in Table 2.

[a] Due to the lack of TOC data or TOC in this sample, results were compared to the Lowest Apparent Effects Threshold (LAET) or the second LAET (2LAET) value rather than the SQS and/or CSL. The LAET is functionally equivalent to the SQS and the 2LAET is functionally equivalent to the CSL. OC-normalization is not considered to be appropriate for when TOC concentrations are less than or equal to 0.5 percent or greater than or equal to 4.0 percent.

Table 4
Chemicals Detected Above Screening Levels in Subsurface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Sample Depth (feet)	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
											SQS	CSL
Metals												
LDW Subsurface Sediment 2006	LDW-SC11	02/13/06	0.0 - 0.8	Lead	6.39E+02	4.23	1.51E+04	450	530	mg/kg DW	1.4	1.2
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	4.0 - 6.6	Mercury	7.40E-01	1.92	3.85E+01	0.41	0.59	mg/kg DW	1.8	1.3
LDW Subsurface Sediment 2006	LDW-SC11	02/13/06	0.0 - 0.8	Mercury	6.40E-01	4.23	1.51E+01	0.41	0.59	mg/kg DW	1.6	1.1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	1.0 - 2.2	Mercury	5.10E-01	3.93	1.30E+01	0.41	0.59	mg/kg DW	1.2	<1
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	2.0 - 4.0	Mercury	4.50E-01	1.58	2.85E+01	0.41	0.59	mg/kg DW	1.1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	2.0 - 4.5	Mercury	4.40E-01	1.65	2.67E+01	0.41	0.59	mg/kg DW	1.1	<1
LDW Subsurface Sediment 2006	LDW-SC11	02/13/06	0.0 - 0.8	Zinc	4.82E+02	4.23	1.14E+04	410	960	mg/kg DW	1.2	<1
PAHs												
LDW Subsurface Sediment 2006	LDW-SC11[a]	02/13/06	0.0 - 0.8	Benzo(a)pyrene	3.10E+00	4.23	7.33E+01	1.6	3.0	mg/kg DW	1.9	1.0
LDW Subsurface Sediment 2006	LDW-SC11[a]	02/13/06	0.0 - 0.8	Benzo(b)fluoranthene	4.10E+00	4.23	9.69E+01	3.2	3.6	mg/kg DW	1.3	1.1
LDW Subsurface Sediment 2006	LDW-SC11[a]	02/13/06	0.0 - 0.8	Benzo(k)fluoranthene	3.50E+00	4.23	8.27E+01	3.2	3.6	mg/kg DW	1.1	<1
LDW Subsurface Sediment 2006	LDW-SC11[a]	02/13/06	0.0 - 0.8	Benzofluoranthenes (total-calc'd)	7.60E+00	4.23	1.80E+02	3.2	3.6	mg/kg DW	2.4	2.1
LDW Subsurface Sediment 2006	LDW-SC11[a]	02/13/06	0.0 - 0.8	Chrysene	4.30E+00	4.23	1.02E+02	1.4	2.8	mg/kg DW	3.1	1.5
LDW Subsurface Sediment 2006	LDW-SC11[a]	02/13/06	0.0 - 0.8	Fluoranthene	8.10E+00	4.23	1.91E+02	1.7	2.5	mg/kg DW	4.8	3.2
LDW Subsurface Sediment 2006	LDW-SC11[a]	02/13/06	0.0 - 0.8	Indeno(1,2,3-cd)pyrene	6.70E-01	4.23	1.58E+01	0.6	0.69	mg/kg DW	1.1	<1
LDW Subsurface Sediment 2006	LDW-SC11[a]	02/13/06	0.0 - 0.8	Pyrene	6.70E+00	4.23	1.58E+02	2.6	3.3	mg/kg DW	2.6	2.0
LDW Subsurface Sediment 2006	LDW-SC11[a]	02/13/06	0.0 - 0.8	Total HPAH (calc'd)	3.47E+01	4.23	8.20E+02	12	17	mg/kg DW	2.9	2.0
Other SVOCs												
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	2.0 - 4.5	Bis(2-ethylhexyl)phthalate	1.10E+00	1.65	6.67E+01	47	78	mg/kg OC	1.4	<1
LDW Subsurface Sediment 2006	LDW-SC11[a]	02/13/06	0.0 - 0.8	N-Nitroso-di-n-propylamine	3.60E-02	4.23	8.51E-01	0.028	0.04	mg/kg DW	1.3	<1
PCBs												
LDW Subsurface Sediment 2006	LDW-SC11[a]	02/13/06	0.0 - 0.8	PCBs (total calc'd)	3.00E+00	4.23	7.09E+01	0.13	1.0	mg/kg DW	23	3.0
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	4.0 - 4.5	PCBs (total calc'd)	2.60E+00	2.23	1.17E+02	12	65	mg/kg OC	9.7	1.8
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	2.0 - 4.0	PCBs (total calc'd)	2.50E+00	1.58	1.58E+02	12	65	mg/kg OC	13	2.4
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	6.0 - 7.0	PCBs (total calc'd)	2.40E+00	1.54	1.56E+02	12	65	mg/kg OC	13	2.4
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	2.0 - 2.5	PCBs (total calc'd)	2.00E+00 J	2.24	8.93E+01	12	65	mg/kg OC	7.4	1.4
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	2.0 - 4.5	PCBs (total calc'd)	1.64E+00	1.65	9.94E+01	12	65	mg/kg OC	8.3	1.5
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	3.5 - 4.0	PCBs (total calc'd)	1.59E+00	0.814	1.95E+02	12	65	mg/kg OC	16	3.0
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	3.5 - 4.0	PCBs (total calc'd)	7.90E-01	1.61	4.91E+01	12	65	mg/kg OC	4.1	<1
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	2.5 - 3.0	PCBs (total calc'd)	6.30E-01	1.67	3.77E+01	12	65	mg/kg OC	3.1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	0.0 - 1.0	PCBs (total calc'd)	5.10E-01	1.68	3.04E+01	12	65	mg/kg OC	2.5	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	3.0 - 3.5	PCBs (total calc'd)	4.90E-01	1.58	3.10E+01	12	65	mg/kg OC	2.6	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	4.0 - 6.0	PCBs (total calc'd)	4.40E-01	1.26	3.49E+01	12	65	mg/kg OC	2.9	<1
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	4.0 - 6.6	PCBs (total calc'd)	4.20E-01	1.92	2.19E+01	12	65	mg/kg OC	1.8	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	2.5 - 3.0	PCBs (total calc'd)	3.50E-01	1.37	2.55E+01	12	65	mg/kg OC	2.1	<1
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	0.0 - 2.0	PCBs (total calc'd)	3.50E-01	1.92	1.82E+01	12	65	mg/kg OC	1.5	<1
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	1.5 - 2.0	PCBs (total calc'd)	3.20E-01	1.98	1.62E+01	12	65	mg/kg OC	1.3	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	2.0 - 4.0	PCBs (total calc'd)	2.50E-01	1.56	1.60E+01	12	65	mg/kg OC	1.3	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	1.0 - 2.0	PCBs (total calc'd)	2.33E-01	1.7	1.37E+01	12	65	mg/kg OC	1.1	<1

Table 4
Chemicals Detected Above Screening Levels in Subsurface Sediment Samples Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Sample Depth (feet)	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
											SQS	CSL

mg/kg - Milligram per kilogram
DW - Dry weight
TOC - Total Organic Carbon
OC - Organic carbon normalized

SQS - SMS Sediment Quality Standard
CSL - SMS Cleanup Screening Level
SMS - Sediment
PAHs - Polycyclic

SVOCs - Semi-volatile organic compounds
PCB - Polychlorinated biphenyl
J - Estimated

Table presents detected chemicals only.
Exceedance factors are the ratio of the detected concentrations to
Sampling events are listed in Table 2.

* Due to the TOC in this sample, results were compared to the Lowest Apparent Effects Threshold (LAET) or the second LAET (2LAET) value rather than the SQS and/or CSL. The LAET is functionally equivalent to the SQS and the 2LAET is functionally equivalent to the CSL. OC-normalization is not considered to be appropriate for when TOC concentrations are less than or equal to 0.5 percent or greater than or equal to 4.0 percent.

Table 5
CSO/EOF Discharges to the Lower Duwamish Waterway

Outfall	Type (Owner)	Discharge Serial Number	Location	Average Overflow Frequency (events/year) 2000 to 2007	Annual Average Volume (mgy) 2000 to 2007
Diagonal Avenue S.[a]	CSO (SPU) SD (SPU)	NA	RM 0.5 E	20.1	15.8[b]
Hanford No. 1[c]	CSO (King County)	031	RM 0.5 E	9	18.75
Duwamish pump station East	CSO (King County)	035	RM 0.5 E	<1.0	0.51
Duwamish pump station West	CSO (King County)	034	RM 0.5 W	<1.0	0.60
S. Brandon Street	CSO (King County)	041	RM 1.1 E	23	31.63
Terminal 115	CSO (King County)	038	RM 1.9 W	3	3.52
S. Brighton Street	CSO (SPU) SD (SPU)	NA	RM 2.1 E	NA[g]	NA
King County Airport SD#3/PS44 EOF[d]	SD (King County) EOF (SPU)	NA	RM 2.8 E	NA	NA
E. Marginal Way S. pump station	EOF (King County)	043	RM 2.8 E	None recorded	NA
8th Avenue S.	CSO (King County)	040	RM 2.8 W	0	0
King County Airport SD#2/PS78 EOF[e]	SD (King County) EOF (SPU)	NA	RM 3.8 E	NA	NA
Michigan Street	CSO (King County)	039	RM 1.9 E	11	17.58
W. Michigan	CSO (King County)	042	RM 2.0 W	4	1.23
Norfolk	CSO (King County) SD (King County) EOF (SPU)[f]	044	RM 4.8 E	4	0.28

Source: King County 2008

a - The Diagonal Avenue S. SD outfall is shared by stormwater and seven separate overflow points, including the City's Diagonal CSOs and the County's Hanford No. 1 CSO. The overflow frequency and volume listed are for the Diagonal CSOs only.

b - This average volume does not include the contribution from King County's Hanford No. 1 CSO, but does include the remaining seven overflow points that discharge through the Diagonal Avenue S. CSO/SD.

c - Hanford No. 1 discharges to the LDW through the Diagonal Avenue S. SD.

d – SPU Pump Station 44 discharges via EOF No. 117 to King County Airport SD#3 at Slip 4.

e – SPU Pump Station 78 discharges via EOF No. 156 to King County Airport SD#2, near Boeing Isaacson.

f – SPU Pump Station 17 discharges to the Norfolk CSO/SD.

g – Has not overflowed since monitoring began in March 2000.

mgy – million gallons per year

NA – Not available

Table 6
Chemicals Detected Above Screening Levels in Bank Soil Samples
Near the Spokane Street to Kellogg Island Source Control Area

Sample Location	Date Sampled	Chemical	Conc'n (mg/kg)	SQS	CSL	Units	SQS Exceedance Factor	CSL Exceedance Factor	LDW Background	Units	LDW Background Exceedance Factor
T107-BS-5	5/10/2011	Arsenic	324	57	93	mg/kg	5.7	3.5	7.3	mg/kg	44
T107-BS-4	5/10/2011	Arsenic	313	57	93	mg/kg	5.5	3.4	7.3	mg/kg	43
T107-BS-2	5/10/2011	Arsenic	310	57	93	mg/kg	5.4	3.3	7.3	mg/kg	42
T107-BS-1	5/10/2011	Arsenic	197	57	93	mg/kg	3.5	2.1	7.3	mg/kg	27
T107-BS-3	5/10/2011	Arsenic	190	57	93	mg/kg	3.3	2.0	7.3	mg/kg	26
RM-BS-4	5/12/2011	Arsenic	43	57	93	mg/kg	<1	<1	7.3	mg/kg	5.9
RM-BS-5	5/12/2011	Arsenic	8.5	57	93	mg/kg	<1	<1	7.3	mg/kg	1.2
T107-BS-5	5/10/2011	Lead	1610	450	530	mg/kg	3.6	3.0			
T107-BS-2	5/10/2011	Lead	1140	450	530	mg/kg	2.5	2.2			
T107-BS-4	5/10/2011	Lead	970	450	530	mg/kg	2.2	1.8			
T107-BS-1	5/10/2011	Lead	730	450	530	mg/kg	1.6	1.4			
T107-BS-3	5/10/2011	Lead	640	450	530	mg/kg	1.4	1.2			
RM-BS-1	5/12/2011	Mercury	1.05	0.41	0.59	mg/kg	2.6	1.8			
T107-BS-5	5/10/2011	Zinc	2480	410	960	mg/kg	6.0	2.6			
T107-BS-4	5/10/2011	Zinc	1440	410	960	mg/kg	3.5	1.5			
T107-BS-2	5/10/2011	Zinc	1280	410	960	mg/kg	3.1	1.3			
T107-BS-3	5/10/2011	Zinc	603	410	960	mg/kg	1.5	<1			
T107-BS-1	5/10/2011	Zinc	440	410	960	mg/kg	1.1	<1			

Sample Location	Date Sampled	Chemical	Conc'n (ug/kg)	LAET	2LAET	Units	LAET Exceedance Factor	2LAET Exceedance Factor	LDW Background	Units	LDW Background Exceedance Factor
RM-BS-1	5/12/2011	cPAHs TEQ	1041.4						8.9	ug/kg	117
RM-BS-2	5/12/2011	cPAHs TEQ	241.2						8.9	ug/kg	27
RM-BS-5	5/12/2011	cPAHs TEQ	214.2						8.9	ug/kg	24
RM-BS-3	5/12/2011	cPAHs TEQ	68.52						8.9	ug/kg	7.7
RM-BS-4	5/12/2011	cPAHs TEQ	35.89						8.9	ug/kg	4.0
RM-BS-1	5/12/2011	Dioxin/Furans TEQ (ng/kg)	25.56						1.6	ng/kg	16
RM-BS-2	5/12/2011	Dioxin/Furans TEQ (ng/kg)	11.43						1.6	ng/kg	7.1
RM-BS-4	5/12/2011	Dioxin/Furans TEQ (ng/kg)	4.48						1.6	ng/kg	2.8
RM-BS-5	5/12/2011	Dioxin/Furans TEQ (ng/kg)	3.47						1.6	ng/kg	2.2
T107-BS-3	5/10/2011	Dioxin/Furans TEQ (ng/kg)	1.87						1.6	ng/kg	1.2
RM-BS-5	5/12/2011	Total PCBs	78	130	1,000	mg/kg	<1	<1	6.5	ug/kg	12
RM-BS-1	5/12/2011	Total PCBs	47	130	1,000	mg/kg	<1	<1	6.5	ug/kg	7.2
RM-BS-4	5/12/2011	Total PCBs	47	130	1,000	mg/kg	<1	<1	6.5	ug/kg	7.2
RM-BS-2	5/12/2011	Total PCBs	16	130	1,000	mg/kg	<1	<1	6.5	ug/kg	2.5

Table 6
Chemicals Detected Above Screening Levels in Bank Soil Samples
Near the Spokane Street to Kellogg Island Source Control Area

mg/kg - Milligram per kilogram
ug/kg - Micrograms per kilogram
ng/kg - Nanograms per kilogram
SMS - Sediment Management Standard (Washington Administrative Code 173-204)
SQS - SMS Sediment Quality Standard
CSL - SMS Cleanup Screening Level
LAET - Lowest Apparent Effects Threshold
2LAET - Second LAET
cPAHs - Carginogenic polycyclic aromatic hydrocarbons
PCB - Polychlorinated biphenyl
LDW - Lower Duwamish Waterway
TEQ - Toxic Equivalency

Table presents detected chemicals only.
Exceedance factors are the ratio of the detected concentrations to the SQS/CSL or LAET/2LAET; exceedance factors are shown only if they are greater than 1.

Table 7
Chemicals Detected Above Screening Levels in Seep Samples
Spokane Street to Kellogg Island Source Control Area

Source	Sample Location	Date Sampled	Chemical	Conc'n (ug/L)	Units	Marine Chronic WQS	Marine Acute WQS	Chronic WQS Exceedance Factor	GW-to-Sediment Screening Level[a]	Exceedance Factor
Metals										
LDWRI-Seep	SP-71	06/29/04	Copper	12.1 J	ug/L	3.1	4.8	3.9	120	<1
LDWRI-Seep	SP-69	06/29/04	Copper	8.06 J	ug/L	3.1	4.8	2.6	120	<1
LDWRI-Seep	SP-71	06/29/04	Lead	15.2	ug/L	8.1	210	1.9	13	1.2
LDWRI-Seep	SP-71	06/29/04	Mercury	0.0322	ug/L	0.025	1.8	1.3	0.0074	4.4
LDWRI-Seep	SP-69	06/29/04	Mercury	0.0127	ug/L	0.025	1.8	<1	0.0074	1.7
PCBs										
LDWRI-Seep	SP-64	07/02/04	PCBs (total calc'd)	0.46 J	ug/L	0.030	10	15	1.5	<1

ug/L - micrograms per liter

mg/L - milligrams per liter

WQS - Water Quality Standards

CSL - Sediment Management Standards Cleanup Screening Level

PCB - Polychlorinated biphenyl

J - Estimated value between the method detection limit and the laboratory reporting limit

Table presents detected chemicals only. All samples were unfiltered.

Exceedance factors are the ratio of the detected concentration to the screening level; exceedance factors are shown only if they are greater than or equal to 1.

a - Groundwater to sediment screening level, based on sediment CSLs. From SAIC 2006

Table 8
Chemicals Detected Above Storm Drain Screening Values at
Storm Drain Sample Locations in the SW Dakota Street SD Basin

Chemical	SQS/ LAET	CSL/ 2LAET	CB52 02/04/05 CB SD	CB41C 04/16/10 CB SD	RCB43 02/04/05 RCB SD	RCB185 04/16/10 RCB SD	RCB200a 08/28/08 RCB SD
Metals (mg/kg)							
Zinc	410	960	--	***3,740***	--	202	**424**
PAHs (mg/kg DW)							
2-Methylnaphthalene	0.063	0.072	<0.12	***0.29***	<0.075	***0.091***	<0.019
Chrysene	1.4	2.8	0.65	**1.6**	0.21 J	0.14	0.18
Phthalates (mg/kg DW)							
Bis(2-ethylhexyl)phthalate	1.3	1.9	***7.3***	***37***	1.0 J	***2.9***	0.88
Butyl benzyl phthalate	0.063	0.9	***1.3***	***1.8***	**0.52 J**	***19***	0.028
Diethyl phthalate	0.2	1.2	**0.48**	<0.23	<0.075	<0.074	<0.019
Dimethyl phthalate	0.071	0.16	<0.12	***0.22 J***	<0.075	0.066 J	<0.019
Di-n-butylphthalate	1.4	5.1	0.29	0.20 J	<0.075	**1.7**	<0.019
Other SVOCs (mg/kg DW)							
Benzoic acid	0.65	0.65	<1.2	<2.3	<0.75	***1.9***	<0.19
Benzyl alcohol	0.057	0.073	<0.12	<2.3	<0.075	***3.7***	<0.019
PCBs (mg/kg DW)							
Total PCBs	0.13	1.0	**0.223**	**0.317**	0.0158 J	**0.61**	**0.133**
Petroleum Hydrocarbons (mg/kg)							
Heavy-oil range	2,000	--	1,700	**2,000**	1100	460	330

CB - Private catch basin
RCB - Right-of-way catch basin
SD - Storm Drain
SQS - Sediment Quality Standard from Washington SMS
CSL - Cleanup Screening Level from Washington SMS
SMS - Sediment Management Standards
LAET - Lowest Apparent Effects Threshold
2LAET - Second LAET
mg/kg - milligrams per kilogram

DW - dry weight
PAHs - polycyclic aromatic hydrocarbons
PCBs - polychlorinated biphenyls
MTCA - Model Toxics Control Act
J - Estimated value between the method detection limit & the laboratory reporting limit
-- - Not analyzed

424 Exceeds the SQS/LAET, MTCA
7.3 Exceeds CSL/2LAET

Chemicals were not detected above storm drain screening values in the samples collected from CB49, CB50 and CB51.
Samples from these catch basins were analyzed for arsenic, lead, mercury, and zinc.

Table 9
Chemicals Detected Above Storm Drain Screening Values at Storm Drain Sample Locations in the SW Idaho Street SD Basin

Chemical	SQS/ LAET	CSL/ 2LAET	ID-ST1 03/06/09 Trap SD	ID-ST1 11/18/10 Trap SD	ID-ST2 09/05/08 Inline SD	ID-ST2 11/18/10 Inline SD	ID-ST2 03/06/09 Trap SD	ID-ST2 11/18/10 Trap SD	ID-ST3 09/10/08 Inline SD	ID-ST3 03/06/09 Inline SD	ID-ST3 11/04/10 Inline SD	ID-ST3 03/06/09 Trap SD	ID-ST3 11/04/10 Trap SD	MH237 06/02/09 Inline SD	MH238 06/02/09 Inline SD	MH242 02/02/11 Inline SD
Metals (mg/kg)																
Zinc	410	960	**836**	**794**	74	409	100	141	170	122	154	228	270	222 J	243 J	155
LPAH (mg/kg DW)																
Phenanthrene	1.5	5.4	**3.6**	***6.7***	0.067	0.41	0.16	0.47	<0.019	<0.02	0.0099 J	<0.059	0.042	0.034 J	0.036 J	0.27
LPAH	5.2	13	4.19	**8.31 J**	0.067	0.41	0.16	0.536	<0.019	<0.02	0.0099 J	0.059	0.042	0.034 J	0.036 J	0.27
HPAH (mg/kg DW)																
Benzo(a)anthracene	1.3	1.6	***5.6***	***5.0***	0.069	0.30	0.22	0.47	<0.019	<0.02	<0.02	<0.059	0.023	0.04 J	0.039 J	0.21
Benzo(a)pyrene	1.6	3.0	***8.3***	***7.4***	0.11	0.60	0.32	0.76	<0.019	<0.02	0.016 J	<0.059	0.041	0.051 J	0.056 J	0.29
Benzo(g,h,i)perylene	0.67	0.72	***8.8***	***28***	0.12	***1.4***	0.43	***2.8***	<0.019	<0.02	0.032	<0.059	0.088	0.11 J	0.094 J	0.79
Total benzofluoranthenes	3.2	3.6	***39***	***6.4***	0.49	1.1	1.4	0.73	0.040	0.03 J	<0.02	0.034 J	<0.02	0.11 J	0.123 J	0.39
Chrysene	1.4	2.8	***17***	***12***	0.19	0.67	0.64	1.1	<0.019	0.011 J	0.019 J	0.035 J	0.054	0.076 J	0.07 J	0.43
DibenzO(a,h)anthracene	0.23	0.54	***2.1***	***2.1***	0.02	<0.23	0.11	<0.059	<0.019	<0.02	<0.02	<0.059	<0.02	<0.058	<0.058	<0.14
Fluoranthene	1.7	2.5	***9.9***	***12***	0.20	1.0	0.48	1.2	<0.019	<0.02	0.022	<0.059	0.082	0.094 J	0.097 J	0.48
Indeno(1,2,3-cd)pyrene	0.6	0.69	***8.3***	***6.1***	0.12	***0.75***	0.39	***0.69***	<0.019	<0.02	<0.02	<0.059	<0.02	0.046 J	0.048 J	0.29
Pyrene	2.6	3.3	***9.8***	***9.6***	0.17	0.83	0.45	0.95	<0.019	<0.02	0.016 J	<0.059	0.060	0.068 J	0.061 J	0.37
HPAH	12	17	***148***	***89***	1.98	6.7	5.84	8.7	0.061	0.051 J	0.105 J	0.103 J	0.348	0.705 J	0.711 J	3.25
Phthalates (mg/kg DW)																
Bis(2-ethylhexyl)phthalate	1.3	1.9	***20***	***12 B***	0.13	1.1 B	0.86	**1.3 B**	0.063	0.059	0.16 B	0.22	0.52 B	0.17 J	0.12 J	**1.4 B**
Butyl benzyl phthalate	0.063	0.9	***1.2***	**0.55**	0.013 J	**0.47**	**0.063**	**0.10**	<0.019	<0.02	0.016 J	<0.059	0.057	0.047 J	0.036 J	<0.14
PCBs (mg/kg DW)																
Total PCBs	0.13	1.0	**0.28**	**0.31**	0.02	**0.36**	0.042	**0.391**	<0.019	<0.02	<0.02	<0.02	<0.02	<0.02	<0.019	0.025
Other organic compounds (mg/kg DW)																
4-Methylphenol	0.67	0.67	***1.4***	0.28 J	<0.02	<0.23	<0.059	<0.059	<0.019	<0.02	<0.02	0.20	0.013 J	<0.058	<0.058	0.20
Benzoic acid	0.65	0.65	<5.1	<4.6	0.20	<2.3	<0.59	<0.59	<0.19	0.20	0.087 J	0.59	0.11 J	<0.58	<0.58	<1.4
Benzyl alcohol	0.057	0.073	<0.51	<0.46	<0.02	<0.23	<0.059	<0.059	<0.019	0.018 J	<0.02	<0.059	0.044	<0.058	<0.058	<0.68
Hexachlorobenzene	0.022	0.07	<0.51	<0.46	<0.02	<0.23	<0.059	<0.059	<0.019	<0.02	<0.02	<0.059	<0.02	<0.058	<0.058	<0.14
Total petroleum hydrocarbons (mg/kg)																
TPH-diesel	2,000	--	1,200	350	<65	660	86	46	<56	<65	<77	<95	<97	520	<61	260
TPH-Oil	2,000	--	**7,700**	**2,700**	<130	**2,500**	600	260	270	280	<150	480	280	380	340	1,200
Dioxins/furans (ng/kg) TEQ																
Dioxins/furans TEQ	1.6	--	--	--	--	**13.9 J**	--	--	--	--	--	--	--	--	--	--

SD - Storm Drain
SQS - Sediment Quality Standard from Washington SMS
CSL - Cleanup Screening Level from Washington SMS
SMS - Sediment Management Standards
LAET - Lowest Apparent Effects Threshold
2LAET - Second LAET
mg/kg - Milligrams per kilogram
DW - Dry weight
ng/kg - Nanograms per kilogram
TEQ - toxic equivalency

B- the analyte was detected in the method blank
J - Estimated value between the method detection limit & the laboratory reporting limit
-- - Not analyzed
TPH - Total petroleum hydrocarbons
LPAH - Low molecular weight polycyclic aromatic hydrocarbon
HPAH - High molecular weight polycyclic aromatic hydrocarbon
PCBs - Polychlorinated biphenyls
MTCA - Model Toxics Control Act

738	Exceeds the SQS/LAET, MTCA, LDW dioxin/furan background
0.74	Exceeds CSL/2LAET

Table 9

Chemicals Detected Above Storm Drain Screening Values at Storm Drain Sample Locations in the SW Idaho Street SD Basin

Chemical	SQS/ LAET	CSL/ 2LAET	RCB158 10/24/08 RCB SD	RCB219 06/02/09 RCB SD	RCB220 06/02/09 RCB SD	RCB230 03/11/11 RCB SD	RCB259 04/22/11 RCB SD
Metals (mg/kg)							
Zinc	410	960	128	80 J	58 J	323	276 J
LPAH (mg/kg DW)							
Phenanthrene	1.5	5.4	0.049 J	0.062 J	0.045 J	0.12	0.12
LPAH	5.2	13	0.049 J	0.062 J	0.079 J	0.173 J	0.155 J
HPAH (mg/kg DW)							
Benzo(a)anthracene	1.3	1.6	<0.058	0.05 J	0.035 J	0.069	<0.058
Benzo(a)pyrene	1.6	3.0	<0.058	0.058 J	0.05 J	0.089	0.05 J
Benzo(g,h,i)perylene	0.67	0.72	<0.058	0.06 J	0.052 J	0.16 J	0.13
Total benzofluoranthenes	3.2	3.6	0.091 J	0.17 J	0.176 J	0.059	0.038 J
Chrysene	1.4	2.8	0.069	0.13 J	0.12 J	0.13 J	0.11
DibenzO(a,h)anthracene	0.23	0.54	<0.058	<0.066	<0.058	<0.02	<0.058
Fluoranthene	1.7	2.5	0.073	0.12 J	0.092 J	0.27	0.13
Indeno(1,2,3-cd)pyrene	0.6	0.69	<0.058	0.049 J	0.034 J	0.045	<0.058
Pyrene	2.6	3.3	0.063	0.077 J	0.061 J	0.16 J	0.16
HPAH	12	17	0.387 J	0.884 J	0.796 J	0.982 J	0.618 J
Phthalates (mg/kg DW)							
Bis(2-ethylhexyl)phthalate	1.3	1.9	**1.6**	0.62 J	0.78 J	0.43	***7.8***
Butyl benzyl phthalate	0.063	0.9	***1.4***	<0.066	<0.058	**0.33 J**	0.18
PCBs (mg/kg DW)							
Total PCBs	0.13	1.0	<0.019	<0.02	<0.02	0.020	<0.02
Other organic compounds (mg/kg DW)							
4-Methylphenol	0.67	0.67	0.053 J	***1.4 J***	***1.7 J***	0.011 J	***1.0***
Benzoic acid	0.65	0.65	0.58	<0.66	<0.58	0.048 J	***1.3***
Benzyl alcohol	0.057	0.073	<0.058	<0.066	<0.058	0.016 J	***0.70***
Hexachlorobenzene	0.022	0.07	***4.3***	<0.066	<0.058	<0.02	**0.052 J**
Total petroleum hydrocarbons (mg/kg)							
TPH-diesel	2,000	--	110	150	160	<58	<130
TPH-Oil	2,000	--	900	980	940	410	620
Dioxins/furans (ng/kg) TEQ							
Dioxins/furans TEQ	1.6	--	--	--	--	--	--

SD - Storm Drain
SQS - Sediment Quality Standard from Washington SMS
CSL - Cleanup Screening Level from Washington SMS
SMS - Sediment Management Standards
LAET - Lowest Apparent Effects Threshold
2LAET - Second LAET
mg/kg - Milligrams per kilogram
DW - Dry weight
ng/kg - Nanograms per kilogram
TEQ - toxic equivalency

B- the analyte was detected in the method blank
J - Estimated value between the method detection limit & the laboratory reporting limit
-- - Not analyzed
TPH - Total petroleum hydrocarbons
LPAH - Low molecular weight polycyclic aromatic hydrocarbon
HPAH - High molecular weight polycyclic aromatic hydrocarbon
PCBs - Polychlorinated biphenyls
MTCA - Model Toxics Control Act

738	Exceeds the SQS/LAET, MTCA, LDW dioxin/furan background
0.74	Exceeds CSL/2LAET

Table 10
Chemicals Detected in Duwamish West CSO
In-Pipe Water Samples
2007 and 2009

Chemical	Sample Date			
	9/30/2007	12/2/2007	4/2/2009	5/5/2009
Metals				
Arsenic, dissolved	NA	1.6 J	3.02	1.71 J
Arsenic, total	2.4 J	2.94	8.06	4.6 J
Cadmium, total	0.3 J	0.22 J	0.831	2.1 J
Chromium, dissolved	NA	0.62 J	0.5 J	0.43 J
Chromium, total	6.5	7.18	23	12.1 J
Copper, dissolved	NA	2.62	2.94	3.06 J
Copper, total	80.7	51.3	78.1	54.9 J
Lead, dissolved	NA	0.4 J	0.694	0.511 J
Lead, total	96.3	14.2	96.4	39.2 J
Mercury, total	NA	0.051 J	0.164	0.0817
Silver, total	0.22 J	<0.2	0.558	0.278 J
Zinc, dissolved	NA	26.3	13.3	11.5 J
Zinc, total	232	107	326	205 J
PAHs				
2-Methylnaphthalene	NA	0.549	0.234	0.148
Acenaphthene	NA	<0.0094	0.0449	0.0394
Anthracene	NA	<0.0094	0.0528	<0.0094
Benzo(a)anthracene	NA	0.116	0.11	0.0454
Benzo(a)pyrene	NA	0.159	0.135	0.0659
Benzo(b)fluoranthene	NA	<0.0094	0.188	0.08
Benzo(g,h,i)perylene	NA	0.0652	0.105	0.0549
Benzo(k)fluoranthene	NA	0.126	0.129	0.069
Chrysene	NA	0.0415	0.181	0.0723
Dibenzo(a,h)anthracene	NA	<0.0094	0.0302	<0.0094
Fluoranthene	NA	0.115	0.265	0.0864
Fluorene	NA	<0.0094	0.0619	0.0546
Indeno(1,2,3-cd)pyrene	NA	0.0724	0.093	0.0466
Naphthalene	NA	0.687	0.34	0.0861
Phenanthrene	NA	0.125	0.25	0.123
Pyrene	NA	0.0722	0.33	0.133
Phthalates				
BEHP	NA	3.3 B	3.9	<2.3
Butyl benzyl phthalate	NA	0.876	0.721	0.468
Diethyl phthalate	NA	1.68	1.73	0.629
Dimethyl phthalate	NA	0.173	<0.024	0.306
Di-n-butyl phthalate	NA	0.831 B	0.243 B	0.237
Other SVOCs				
1,4-Dichlorobenzene	NA	0.506	1.03	0.629
4-Methylphenol	NA	5.72	6.93	0.354
Benzyl alcohol	NA	3.28	1.2	<0.047
Dibenzofuran	NA	NA	<0.0094	0.0251
Pentachlorophenol	NA	1.23	<0.094	0.267
Phenol	NA	1.16	1.18	<0.047
PCBs				
PCBs, total	0.136	0.035	0.032	0.043

Source: King County 2009, 2011b

All concentrations listed in micrograms per liter (μg/L)
NA – not analyzed
B – detected in method blank
J – estimated concentration between the method detection limit (MDL) and laboratory reporting limit.
< - chemical not detected at or above the listed MDL.

Table 11
Underground and Aboveground Storage Tanks
Adjacent Properties

Tank #	Contents	Type	Capacity (Gallons)	Status	Description
Riverside Mill					
27	Diesel	UST	8,000	Removed	Bethlehem Steel UST
28	Sulfuric Acid	UST	Unknown	Removed	Bethlehem Steel Acid Tanks
29	Waste Acid	UST	Unknown	Removed	2 USTs, Bethlehem Steel Acid Tanks
36	Cooling Oil	UST	4,000	Removed	Bethlehem Steel UST
59	LPG	UST	Unknown	Unknown	Bethlehem Steel Tanks
Terminal 103					
1	Motor Oil	AST	500	Active	General Construction ASTs
2	Hydraulic Oil	AST	500	Active	General Construction ASTs
3	Used Oil	AST	600	Active	General Construction ASTs
4	Used Antifreeze	AST	200	Active	General Construction ASTs
5	Diesel	AST	500	Active	General Construction ASTs
6	Heating Oil	UST	500	Removed	General Construction UST
7	Diesel	UST	10,000	Removed	General Construction Refueling UST
8	Gasoline	UST	600	Removed	General Construction Refueling UST
9	Gasoline	UST	6,000	Removed	General Construction Refueling UST
10	Unknown	UST	Unknown	Removed	Unknown UST
11	Fuel Oil	UST	Unknown	Removed	Unknown Fuel Tank
12	Diesel	AST	2,000	Removed	Diesel AST
30	Heating Oil	UST	Unknown	Unknown	Unknown UST
31	Unknown	UST	Unknown	Unknown	Unknown UST
32	Unknown	UST	Unknown	Unknown	Unknown UST
33	Waste Oil	UST	600	Unknown	Crowley Maintenance Yard UST
Global Diving & Salvage					
25	Heating Oil	UST	Unknown	Removed	Global Diving UST
26	Unknown	UST	Unknown	Unknown	Global Diving Suspected UST
Terminal 105					
13	Waste Oil	UST	8,000	Unknown	Liquid Disposal Corporation UST
14	Waste Oil	UST	8,000	Unknown	Liquid Disposal Corporation UST
15	Gasoline	UST	1,000	Unknown	Liquid Disposal Corporation UST
16	Gasoline	UST	1,000	Unknown	Liquid Disposal Corporation UST
17	Unknown	UST	500	Closed in Place	Jeffries Sandblasting
18	Heating Oil	UST	300	Removed	Terminal 105 Unknown UST
19	Unknown	UST	200	Removed	Terminal 105 Unknown UST
20	Septic	UST	300	Removed	Terminal 105 Septic Tank
21	Diesel	UST	2,000	Removed	Terminal 105 Diesel Tank
22	Diesel	UST	1,200	Removed	T105 UST-F
23	Unknown	UST	300	Removed	Former Terminal 105 Unknown UST
24	Gasoline	UST	2,000	Removed	T105 UST-A, Riverside Marina
34	Diesel	AST	180	Unknown	Fife Forge AST
35	Unknown	AST	Unknown	Unknown	Building I-1 AST
Former Seaboard Lumber					
43	Lube Oil/Waste Oil	UST	2,100	Removed	Seaboard Oil Service Tank
44	Gasoline	UST	500	Unknown	Seaboard Forklift Refueling Tank
45	Diesel	UST	8,000	Removed	Former Seabord Lumber Tanks
46	Diesel	UST	10,000	Removed	Former Seabord Lumber Tanks
47	Diesel	UST	10,000	Removed	Former Seabord Lumber Tanks
48	Heating Oil	UST	300	Removed	Former Seabord Lumber Tanks
49	Diesel	AST	1,000	Removed	Former Seabord Lumber Tanks
50-54	Lubricating Oil	ASTs	300	Removed	Former Seabord Lumber Tanks
55-58	Diesel	ASTs	Unknown	Removed	Former Seabord Lumber Tanks
Terminal 107					
37	Paint Solvents	UST	6,000	Unknown	LE Carter Tanks
38	Paint Solvents	UST	4,000	Unknown	LE Carter Tanks
39	Paint Solvents	UST	7,500	Unknown	LE Carter Tanks
40	Paint Solvents	UST	7,500	Unknown	LE Carter Tanks
41	Unknown	UST	3,000	Unknown	Goodspeed Fuel Tanks
42	Unknown	UST	3,000	Unknown	Goodspeed Fuel Tanks

UST - Underground storage tank
AST - Aboveground storage tank

Table 12
Chemicals Detected Above Screening Levels in Soil
Terminal 103

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
Geo Engineers 1997	11/11/1996	S-2-1	4	Arsenic	12.3	0.67	12,000	18

ft bgs - Feet below ground surface
mg/kg - Milligrams per kilogram
MTCA - Model Toxics Control Act
CSL - Cleanup Screening Level from Washington Sediment Management Standards

a - The lower of MTCA Method A or B cleanup levels was selected, from CLARC database.
b - Based on CSL. Where two screening levels are listed for a single chemical, the higher screening levels are for soil samples collected from the vadose zone and the lower screening levels are for soil samples collected from the saturated zone (SAIC 2006).
Depth to groundwater is tidally influenced at this property, and was observed between 10 and 12 ft bgs.
Table presents detected chemicals only.
Exceedance factors are the ratio of the detected concentration to the MTCA Cleanup Level or Soil-to-Sediment Screening Level, whichever is lower.

Table 13
Chemicals Detected Above Screening Levels in Groundwater
Terminal 103

Source	Sample Date	Sample Location	Chemical	GW Conc'n (ug/L)	MTCA Cleanup Level[a] (ug/L)	GW-to-Sediment Screening Level[b] (ug/L)	Exceedance Factor
Geo Engineers 1997	11/11/1996	S-1	Arsenic	10.6	0.06	370	180
Geo Engineers 1997	11/11/1996	S-6	Arsenic	8.8	0.06	370	150
Geo Engineers 1997	11/11/1996	S-9	Arsenic	7.4	0.06	370	130
Coastal Tank Cleaning 1994	5/13/1994	8677-15	Lead	724	15	13	56
Coastal Tank Cleaning 1994	6/10/1994	2-L	Lead	50	15	13	3.8

GW - Groundwater
ug/L - Micrograms per liter
MTCA - Model Toxics Control Act
CSL - Cleanup Screening Level from Washington Sediment Management Standards

a - The lower of MTCA Method A or B cleanup levels was selected, from CLARC database
b - Based on CSL (SAIC 2006).
Table presents detected chemicals only.
Exceedance factors are the ratio of the detected concentration to the MTCA Cleanup Level or Groundwater-to-Sediment Screening Value, whichever is lower.

Table 14
Historical Operators and Activities
Terminal 105

Operator	Approximate Years of Operation	Address	Operations	Building	Parcel(s)
Amadine Industrial Coatings	1976	1124 SW Idaho Street			
American President Lines	1993		Container Storage Lot		
Appliance Building Company	1966	1120 SW Idaho Street			
Arctic Gulf Marine	1982	4000 West Marginal Way			
Bird Johnson Company Annex	1990	4100 West Marginal Way SW	Manufactured shafts and propellors	I-1	3530
The Boeing Company	2002	4260 West Marginal Way SW	Aircraft manufacturing		3630
C&C Crating Company	1976	1124 SW Idaho Street			
C.H. Rasmussen Company, Inc.	1966		Warehousing		3540
C.M. Lovested & Company, Inc.	1950s-1960s		Dry kiln assembling, included a warehouse, office, storage buildings, planer shop, dry kiln, boiler house and fuel bin		3462 3464
Chemithon Company	1990s	4100 West Marginal Way SW	Stored parts, materials, and some chemicals associated with the fabircation and assembly of chemical process equipment	I-1	3530
Commercial Marine and Industrial	1982	1140 SW Dakota Street			
Constance Machine	1980s-1991	1101 SW Dakota Street	Custom machining work	W-5	3530
Container Renewal Corporation	1976	4000 West Marginal Way SW			
Coolidge Propellor Company, later the Copro Corporation (successor to Bird Johnson Company)	1968	4100 West Marginal Way SW			3530
Corrugated Metals Inc.	1976	4154 West Marginal Way SW			
Crowley Maritime Services, later Crowley Marine Services	1984-1998	4260 West Marginal Way SW	Cutting, welding, servicing, and rigging repairs on tugs and barges, sandblasting, heavy equipment maintenance and storage	A-4	3530 3630
Cunningham Steel Foundry	1946	4260 West Marginal Way SW			
Duroboat, Inc.	1980-1988, 1991	1140 SW Dakota Street 4100 West Marginal Way	Manufactured small aluminum boats	W-13	3462 3464
Elliott Bay Plywood Machine	1966	1130 SW Idaho Street		A-1	
Elliott Bay Shipbuilding	1910s				3540 3630
Elliott Bay Yacht & Engine Company	1910s				3540 3630
Erickson Shipbuilding	1910s				3540 3630
Fife Forge	1990s	1101 SW Dakota Street	Manufactured anchors	W-5	3530
Fraser Boiler Service, Inc.	1982-	4104 West Marginal Way SW	Offices	A-5	
Garrett Metals	1980s-1990s	1101 SW Dakota Street	Fabricated ornamental iron and steel works	W-5	3530
Gene Summy Lumber	1966	1140 SW Idaho Street			3540
Groger Lumber Company	1929				3464
Harbor Island Supply, Inc.		1101 SW Dakota Street			
Homes Inc.	1984		Sandblasting and storage		3464
H.R.L. Machine Works Inc.	1946	4200 West Marginal Way SW			
H.W. Blackstock Company	??-1990	4000 West Marginal Way			

Table 14
Historical Operators and Activities
Terminal 105

Operator	Approximate Years of Operation	Address	Operations	Building	Parcel(s)
Jeffrey Sandblasting (aka Jeffries Sandblasting)	1969-1980	4000 West Marginal Way			3464
J.W. Cox and Company Inc.	1982	1130 SW Idaho Street	Plastics recycling, fabrication and storage	W-3	
Kalamazoo Railway Supply Company	1956	4000 West Marginal Way			
Keramco Refractories	1976	1120 SW Idaho Street			
Lien Chemical	1969-1980	4000 West Marginal Way			3464
Liquid Disposal Corporation		4000 West Marginal Way	Bulk oil storage		3460
Macotech Corporation	1976	4104 West Marginal Way			
Manganese Products	1946	4260 West Marginal Way SW	Fertilizer plant		3630
Manufacturers Mineral Company	1928	1107 SW Idaho Street			3630
Marine Construction Company	1928-1934	4100 Iowa Avenue	Shipyard		3530
Miller Axling	1966				3540
Millfra Tube	1982	4104 West Marginal Way			
Mineral Products Corporation	1928-	1107 SW Idaho Street			3630
National Bearing Metals Corporation	1956-	4000 West Marginal Way			
National Builders Inc.	1966	4142 West Marginal Way SW			3540
National Steel Construction	1966	1120 SW Idaho Street			
Native American Spills	1993				
North Coast Dry Kiln	1956-	4000 West Marginal Way			
North Pacific Shipbuilding Company	1920s				
Northern Steel Buildings	1976	4154 West Marginal Way SW			
Northwest Container Services	1993				3630
Northwest Fiberglass, Inc.	1986-1989	4100 West Marginal Way SW	Fiberglass and insulation manufacturing	I-1	3530
Pacific Coast Forge Company	1929				3464
Pacific Metals and Salvage	1929-1941	4014 Iowa Avenue (later 4014 West Marginal Way)			3464
Pacific Steel Company	1976	4100 West Marginal Way			
Pacific Stove and Foundry Company/ Pacific Stove and Stamping Company	1928-	North of SW Idaho Street at the LDW	Lumber shed, fuel yard, enameling building, stove foundry, warehouse, manufacturing building and spray-painting building		3540
Pioneer Marine Yard	1946	1101 SW Dakota Street		W-5	3530
Porcelain Enamelers, Inc.	1966	1124 SW Idaho Street			
Port of Seattle Terminal 105		4260 West Marginal Way			
Puget Sound Tug and Barge Company	1972	4154 West Marginal Way 4260 West Marginal Way		W-2	
Robert Johnson Company	1966	4260 West Marginal Way			3540
Riverside Marina	1956	1100 SW Idaho Street			3540
Riverside Welding	1966	4260 West Marginal Way			
Seaman's Chapel (aka Seaman's Club Ministry)	1993		Offices	A-5	
Seattle Center	1993				
Seattle Lumber Milling Company	1928-1934	4100 Iowa Avenue			3530

Table 14
Historical Operators and Activities
Terminal 105

Operator	Approximate Years of Operation	Address	Operations	Building	Parcel(s)
Sentinel Anode	1976	1101 SW Dakota Street			
Soule Steel (aka Souli Steel)	1956-1968	4100 West Marginal Way SW		I-1	3530
Spectrum Glass Company	1976	1120 SW Idaho Street			
Stack Steel Metal Fabrication	1975-1986	4100 West Marginal Way SW	Steel fabrication	I-1	3530
Sweeper Service	1969-1980	4000 West Marginal Way			3464
Tacoma Boatbuilding Company		1101 SW Dakota Street	Boat builders	W-5	3530
Tri-County Sandblasting	1976	4000 West Marginal Way SW			
Upland Wood Sales Company	-1946	SW Idaho Street			
Viking Freight	1980s				3530
Wagner Machine Works	1966	1101 SW Dakota Street			3540
Wallace Bridge and Structural Steel Company	1920s-1950s		Steel fabrication, painting, plating, machining, and assembly		3630
Washington Electronic Instrument	1982	1101 SW Dakota Street			
Washington State Department of Transportation			Marine division storage	W-3	
Waterman Slate Company, later named Geo Waterman	1928	1107 SW Idaho Street			3630
Wayne Hart	1986-1992	1101 SW Dakota Street	Race car maintenance and repair	W-5	3530
West Coast Specialties	1976	1120 SW Idaho Street			

Blank cells indicate that the information was not found in or could not be determined from the information available for review.

Sources:

GeoEngineers 1990
Historical Research Associates, Inc. 1993
Kennedy/Jenks 1991b, 1991b
Olympus 1994
Port of Seattle 1989, 1992c, 1995
SoundEarth 2011b

Table 15
Chemicals Detected Above Screening Levels in Soil
Terminal 105

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
EcoChem 1997	1/8/1997	SS-18	Surface	Acenaphthene	23 J	4,800	1.2	19
Erda Environmental 1996	12/1/1994	T #6B D		Acenaphthene	4.6	4,800	0.06	77
EcoChem 1997	1/8/1997	SS-20	Surface	Acenaphthene	3.6 J	4,800	1.2	3.0
EcoChem 1997	1/7/1997	SS-14	Surface	Acenaphthene	2.4	4,800	1.2	2.0
Erda Environmental 1996	12/1/1994	T #3 C	C	Acenaphthene	0.53	4,800	0.06	8.8
Olympus 1994	11/24/1993	TP-6		Acenaphthene	0.3 J	4,800	0.06	5.0
Erda Environmental 1996	12/1/1994	T #2 C	C	Acenaphthene	0.1	4,800	0.06	1.7
Erda Environmental 1996	12/1/1994	T #3S D		Acenaphthene	0.1	4,800	0.06	1.7
Erda Environmental 1996	12/1/1994	T #6B D		Anthracene	17	24,000	1.2	14
Erda Environmental 1996	12/1/1994	T #3 C	C	Anthracene	1.7	24,000	1.2	1.4
Olympus 1994	11/24/1993	TP-9		Antimony	380	32		12
EcoChem 1997	1/8/1997	SS-17	Surface	Antimony	99.6 J	32		3.1
EcoChem 1997	1/8/1997	SS-18	Surface	Antimony	48.9 J	32		1.5
Olympus 1994	11/24/1993	TP-5		Antimony	43	32		1.3
Olympus 1994	11/12/1993	TP-3		Antimony	38 J	32		1.2
Erda Environmental 1996	12/1/1994	T #3N D		Arsenic	530	0.67	590	791
Olympus 1994	11/24/1993	TP-9		Arsenic	390	0.67	590	582
Erda Environmental 1996	12/1/1994	T #3S D		Arsenic	380	0.67	590	567
Erda Environmental 1996	12/1/1994	T #2 C	C	Arsenic	280	0.67	590	418
EcoChem 1997	1/8/1997	SS-17	Surface	Arsenic	250 J	0.67	12,000	373
Erda Environmental 1996	12/1/1994	T #3B D		Arsenic	190	0.67	590	284
Erda Environmental 1996	12/1/1994	T #3 C	C	Arsenic	120	0.67	590	179
EcoChem 1997	1/8/1997	SS-18	Surface	Arsenic	97.2 J	0.67	12,000	145
Olympus 1994	11/12/1993			Arsenic	68	0.67	590	101
Olympus 1994	11/24/1993	TP-5		Arsenic	68	0.67	590	101
EcoChem 1997	1/8/1997	SS-20	Surface	Arsenic	62.6 J	0.67	12,000	93
Erda Environmental 1996	12/1/1994	T #6 C	C	Arsenic	57	0.67	590	85
EcoChem 1997	1/7/1997	SS-12	Surface	Arsenic	56.2 J	0.67	12,000	84
EcoChem 1997	1/7/1997	SS-15	Surface	Arsenic	31.1 J	0.67	12,000	46
EcoChem 1997	1/7/1997	SS-10	Surface	Arsenic	28 J	0.67	12,000	42
EcoChem 1997	1/7/1997	SS-14	Surface	Arsenic	26.7 J	0.67	12,000	40
EcoChem 1997	1/7/1997	SS-16	Surface	Arsenic	25.8 J	0.67	12,000	39
EcoChem 1997	1/7/1997	SS-21	Surface	Arsenic	21.8 J	0.67	12,000	33
EcoChem 1997	1/7/1997	SS-11	Surface	Arsenic	20.9 J	0.67	12,000	31
Olympus 1994	11/24/1993	TP-6		Arsenic	20	0.67	590	30
EcoChem 1997	1/7/1997	SS-9	Surface	Arsenic	16.7 J	0.67	12,000	25
Olympus 1994	11/24/1993	TP-8		Arsenic	14	0.67	590	21
Erda Environmental 1996	12/1/1994	T #1 C	C	Arsenic	14	0.67	590	21
EcoChem 1997	1/7/1997	SS-13	Surface	Arsenic	11.7 J	0.67	12,000	17

Table 15
Chemicals Detected Above Screening Levels in Soil
Terminal 105

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
EcoChem 1997	1/7/1997	SS-7	Surface	Arsenic	11.3 J	0.67	12,000	17
Olympus 1994	11/24/1993	TP-7		Arsenic	11	0.67	590	16
EcoChem 1997	1/7/1997	SS-7 Dup	Surface	Arsenic	10.5 JD	0.67	12,000	16
Geo Engineers 1985	6/4/1985	2 (U-3, U-4)	C	Arsenic	8.9	0.67	12,000	13
Geo Engineers 1985	6/4/1985	1 (U-1, U-2)	C	Arsenic	7.8	0.67	12,000	12
Geo Engineers 1985	6/4/1985	4 (U-7, U-8, U-9)	C	Arsenic	7.8	0.67	12,000	12
EcoChem 1997	1/7/1997	SS-22	Surface	Arsenic	7.3 J	0.67	12,000	11
Olympus 1994	11/24/1993	TP-4		Arsenic	6.9	0.67	590	10
EcoChem 1997	1/8/1997	SS-1	Surface	Arsenic	6.2 J	0.67	12,000	9.3
EcoChem 1997	1/8/1997	SS-5	Surface	Arsenic	6.2 J	0.67	12,000	9.3
Geo Engineers 1985	6/4/1985	3 (U-5, U-6)	C	Arsenic	6	0.67	12,000	9.0
EcoChem 1997	1/8/1997	SS-5 Dup	Surface	Arsenic	5.7 JD	0.67	12,000	8.5
EcoChem 1997	1/7/1997	SS-6	Surface	Arsenic	4.3 J	0.67	12,000	6.4
EcoChem 1997	1/7/1997	SS-4	Surface	Arsenic	3.8 J	0.67	12,000	5.7
EcoChem 1997	1/7/1997	SS-8	Surface	Arsenic	3 J	0.67	12,000	4.5
EcoChem 1997	1/8/1997	SS-3	Surface	Arsenic	1.9 J	0.67	12,000	2.8
EcoChem 1997	1/8/1997	SS-2	Surface	Arsenic	1.8 J	0.67	12,000	2.7
Geo Engineers 1990	2/7/1990	3	5	Benzene	0.04	0.03		1.3
Erda Environmental 1996	12/1/1994	T #6B D		Benzo(a)anthracene	37	1.37	0.27	137
EcoChem 1997	1/8/1997	SS-20	Surface	Benzo(a)anthracene	12	1.37	5.4	8.8
Erda Environmental 1996	12/1/1994	T #3 C	C	Benzo(a)anthracene	6	1.37	0.27	22
EcoChem 1997	1/8/1997	SS-17	Surface	Benzo(a)anthracene	5.5 J	1.37	5.4	4.0
EcoChem 1997	1/7/1997	SS-14	Surface	Benzo(a)anthracene	4	1.37	5.4	2.9
Port of Seattle 1993a	12/7/1992	SS3	0 - 4	Benzo(a)anthracene	3.7	1.37	5.4	2.7
EcoChem 1997	1/8/1997	SS-18	Surface	Benzo(a)anthracene	2.8	1.37	5.4	2.0
EcoChem 1997	1/7/1997	SS-10	Surface	Benzo(a)anthracene	2	1.37	5.4	1.5
EcoChem 1997	1/8/1997	SS-19	Surface	Benzo(a)anthracene	1.7	1.37	5.4	1.2
Olympus 1994	11/24/1993	TP-6		Benzo(a)anthracene	0.81	1.37	0.27	3.0
Erda Environmental 1996	12/1/1994	T #3N D		Benzo(a)anthracene	0.69	1.37	0.27	2.6
Erda Environmental 1996	12/1/1994	T #2 C	C	Benzo(a)anthracene	0.64	1.37	0.27	2.4
Erda Environmental 1996	12/1/1994	T #4 C	C	Benzo(a)anthracene	0.54	1.37	0.27	2.0
Erda Environmental 1996	12/1/1994	T #3S D		Benzo(a)anthracene	0.4	1.37	0.27	1.5
Erda Environmental 1996	12/1/1994	T #1 C	C	Benzo(a)anthracene	0.34	1.37	0.27	1.3
Erda Environmental 1996	12/1/1994	T #6B D		Benzo(a)pyrene	19	0.137	0.21	139
EcoChem 1997	1/8/1997	SS-20	Surface	Benzo(a)pyrene	9.6 J	0.137	4.2	70
EcoChem 1997	1/8/1997	SS-17	Surface	Benzo(a)pyrene	6.0 J	0.137	4.2	44
Erda Environmental 1996	12/1/1994	T #3 C	C	Benzo(a)pyrene	4.7	0.137	0.21	34
EcoChem 1997	1/7/1997	SS-14	Surface	Benzo(a)pyrene	3.7 J	0.137	4.2	27
EcoChem 1997	1/8/1997	SS-18	Surface	Benzo(a)pyrene	2.7	0.137	4.2	20

Table 15
Chemicals Detected Above Screening Levels in Soil
Terminal 105

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
Port of Seattle 1993a	12/7/1992	SS3	0 - 4	Benzo(a)pyrene	2.7	0.137	4.2	20
EcoChem 1997	1/7/1997	SS-10	Surface	Benzo(a)pyrene	1.5 J	0.137	4.2	11
EcoChem 1997	1/8/1997	SS-19	Surface	Benzo(a)pyrene	1.5	0.137	4.2	11
Erda Environmental 1996	12/1/1994	T #3N D		Benzo(a)pyrene	0.65	0.137	0.21	4.7
Erda Environmental 1996	12/1/1994	T #2 C	C	Benzo(a)pyrene	0.59	0.137	0.21	4.3
EcoChem 1997	1/7/1997	SS-15	Surface	Benzo(a)pyrene	0.51 J	0.137	4.2	3.7
EcoChem 1997	1/8/1997	SS-1	Surface	Benzo(a)pyrene	0.46	0.137	4.2	3.4
Olympus 1994	11/24/1993	TP-6		Benzo(a)pyrene	0.45 J	0.137	0.21	3.3
Erda Environmental 1996	12/1/1994	T #4 C	C	Benzo(a)pyrene	0.45	0.137	0.21	3.3
EcoChem 1997	1/7/1997	SS-11	Surface	Benzo(a)pyrene	0.41 J	0.137	4.2	3.0
EcoChem 1997	1/7/1997	SS-16	Surface	Benzo(a)pyrene	0.31 J	0.137	4.2	2.3
Erda Environmental 1996	12/1/1994	T #3S D		Benzo(a)pyrene	0.31	0.137	0.21	2.3
EcoChem 1997	1/7/1997	SS-7	Surface	Benzo(a)pyrene	0.3 J	0.137	4.2	2.2
Erda Environmental 1996	12/1/1994	T #1 C	C	Benzo(a)pyrene	0.28	0.137	0.21	2.0
Erda Environmental 1996	12/1/1994	T #3B D		Benzo(a)pyrene	0.23	0.137	0.21	1.7
Erda Environmental 1996	12/1/1994	T #6 Sides C	C	Benzo(a)pyrene	0.18	0.137	0.21	1.3
EcoChem 1997	1/7/1997	SS-12	Surface	Benzo(a)pyrene	0.17 J	0.137	4.2	1.2
EcoChem 1997	1/7/1997	SS-9	Surface	Benzo(a)pyrene	0.14 J	0.137	4.2	1.0
Erda Environmental 1996	12/1/1994	T #6B D		Benzo(b)fluoranthene	14	1.37	0.45	31
EcoChem 1997	1/8/1997	SS-20	Surface	Benzo(b)fluoranthene	12 J	1.37	9	8.8
EcoChem 1997	1/8/1997	SS-17	Surface	Benzo(b)fluoranthene	6.9 J	1.37	9	5.0
Erda Environmental 1996	12/1/1994	T #3 C	C	Benzo(b)fluoranthene	4.7	1.37	0.45	10
EcoChem 1997	1/7/1997	SS-14	Surface	Benzo(b)fluoranthene	2.9 J	1.37	9	2.1
EcoChem 1997	1/8/1997	SS-18	Surface	Benzo(b)fluoranthene	2.7	1.37	9	2.0
Port of Seattle 1993a	12/7/1992	SS3	0 - 4	Benzo(b)fluoranthene	2.5	1.37	9	1.8
EcoChem 1997	1/7/1997	SS-10	Surface	Benzo(b)fluoranthene	1.5 J	1.37	9	1.1
Olympus 1994	11/24/1993	TP-6		Benzo(b)fluoranthene	0.79	1.37	0.45	1.8
Erda Environmental 1996	12/1/1994	T #3N D		Benzo(b)fluoranthene	0.6	1.37	0.45	1.3
Erda Environmental 1996	12/1/1994	T #2 C	C	Benzo(b)fluoranthene	0.5	1.37	0.45	1.1
Erda Environmental 1996	12/1/1994	T #6B D		Benzo(g,h,i)perylene	68		0.078	872
EcoChem 1997	1/8/1997	SS-17	Surface	Benzo(g,h,i)perylene	2.0 J		1.6	1.3
Erda Environmental 1996	12/1/1994	T #3 C	C	Benzo(g,h,i)perylene	1.7		0.078	22
Erda Environmental 1996	12/1/1994	T #2 C	C	Benzo(g,h,i)perylene	0.42		0.078	5.4
Erda Environmental 1996	12/1/1994	T #3N D		Benzo(g,h,i)perylene	0.4		0.078	5.1
Olympus 1994	11/24/1993	TP-6		Benzo(g,h,i)perylene	0.36 J		0.078	4.6
Erda Environmental 1996	12/1/1994	T #6 C	C	Benzo(g,h,i)perylene	0.3		0.078	3.8
Erda Environmental 1996	12/1/1994	T #4 C	C	Benzo(g,h,i)perylene	0.29		0.078	3.7
Erda Environmental 1996	12/1/1994	T #3S D		Benzo(g,h,i)perylene	0.23		0.078	2.9
Erda Environmental 1996	12/1/1994	T #1 C	C	Benzo(g,h,i)perylene	0.18		0.078	2.3

Table 15
Chemicals Detected Above Screening Levels in Soil
Terminal 105

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
Erda Environmental 1996	12/1/1994	T #6B D		Benzo(k)fluoranthene	17	13.7	0.45	38
EcoChem 1997	1/8/1997	SS-20	Surface	Benzo(k)fluoranthene	12 J	13.7	9	1.3
Erda Environmental 1996	12/1/1994	T #3 C	C	Benzo(k)fluoranthene	3.9	13.7	0.45	8.7
Erda Environmental 1996	12/1/1994	T #3N D		Benzo(k)fluoranthene	0.63	13.7	0.45	1.4
Erda Environmental 1996	12/1/1994	T #2 C	C	Benzo(k)fluoranthene	0.56	13.7	0.45	1.2
EcoChem 1997	1/7/1997	SS-10	Surface	Cadmium	10.4	2	34	5.2
Olympus 1994	11/12/1993	TP-3		Cadmium	9.4	2	1.7	5.5
North Creek 1992	2/13/1992	202-0563		Cadmium	6.8	2	1.7	4.0
Port of Seattle 1995	10/11/1994	Area K Confirmation-8		Cadmium	4.5	2	1.7	2.6
North Creek 1992	2/13/1992	202-0564		Cadmium	3.9	2	1.7	2.3
Port of Seattle 1995	10/11/1994	Area K Confirmation-13		Cadmium	3.8	2	1.7	2.2
EcoChem 1997	1/7/1997	SS-7 Dup	Surface	Cadmium	2.8 D	2	34	1.4
Erda Environmental 1996	12/1/1994	T #3N D		Cadmium	2.8	2	1.7	1.6
EcoChem 1997	1/7/1997	SS-7	Surface	Cadmium	2.5	2	34	1.3
Olympus 1994	11/24/1993	TP-4		Cadmium	2.5	2	1.7	1.5
Olympus 1994	11/24/1993	TP-6		Cadmium	2.3	2	1.7	1.4
Olympus 1994	11/24/1993	TP-9		Cadmium	2.3	2	1.7	1.4
EcoChem 1997	1/8/1997	SS-17	Surface	Cadmium	2.2	2	34	1.1
Port of Seattle 1995	10/11/1994	Area K Confirmation-9		Cadmium	2.1	2	1.7	1.2
Olympus 1994	11/24/1993	TP-7		Cadmium	2	2	1.7	1.2
North Creek 1992	2/13/1992	202-0565		Cadmium	1.9	2	1.7	1.1
Erda Environmental 1996	12/1/1994	T #2 C	C	Cadmium	1.9	2	1.7	1.1
Olympus 1994	11/24/1993	TP-5		Cadmium	1.8	2	1.7	1.1
Erda Environmental 1996	12/1/1994	T #6B D		Chrysene	38	137	0.46	83
EcoChem 1997	1/8/1997	SS-20	Surface	Chrysene	12	137	9.2	1.3
Erda Environmental 1996	12/1/1994	T #3 C	C	Chrysene	6.5	137	0.46	14
Erda Environmental 1996	12/1/1994	T #6 C	C	Chrysene	1	137	0.46	2.2
Erda Environmental 1996	12/1/1994	T #3N D		Chrysene	0.87	137	0.46	1.9
Erda Environmental 1996	12/1/1994	T #2 C	C	Chrysene	0.83	137	0.46	1.8
Erda Environmental 1996	12/1/1994	T #4 C	C	Chrysene	0.68	137	0.46	1.5
Olympus 1994	11/24/1993	TP-6		Chrysene	0.59 J	137	0.46	1.3
Erda Environmental 1996	12/1/1994	T #3S D		Chrysene	0.51	137	0.46	1.1
EcoChem 1997	1/7/1997	SS-10	Surface	Copper	4,090	3,200	780	5.2
Erda Environmental 1996	12/1/1994	T #3N D		Copper	290	3,200	39	7.4
Olympus 1994	11/24/1993	TP-6		Copper	270 J	3,200	39	6.9
Olympus 1994	11/24/1993	TP-9		Copper	230	3,200	39	5.9
Erda Environmental 1996	12/1/1994	T #2 C	C	Copper	180	3,200	39	4.6

Table 15
Chemicals Detected Above Screening Levels in Soil
Terminal 105

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
Erda Environmental 1996	12/1/1994	T #3S D		Copper	180	3,200	39	4.6
Erda Environmental 1996	12/1/1994	T #3 C	C	Copper	120	3,200	39	3.1
Erda Environmental 1996	12/1/1994	T #3B D		Copper	120	3,200	39	3.1
Olympus 1994	11/12/1993	TP-3		Copper	100	3,200	39	2.6
Olympus 1994	11/24/1993	TP-5		Copper	60	3,200	39	1.5
Erda Environmental 1996	12/1/1994	T #6 C	C	Copper	57	3,200	39	1.5
North Creek 1992	2/13/1992	202-0563		Copper	52	3,200	39	1.3
Olympus 1994	11/24/1993	TP-8		Copper	48 J	3,200	39	1.2
Port of Seattle 1993a	12/7/1992	SS3	0 - 4	cPAHs, total	16.6	0.137		121
Olympus 1994	11/24/1993	TP-6		cPAHs, total	2.98	0.137		22
Olympus 1994	11/24/1993	TP-4		cPAHs, total	0.18	0.137		1.3
EcoChem 1997	1/8/1997	SS-20	Surface	Dibenzo(a,h)anthracene	0.53 J	0.137	0.66	3.9
EcoChem 1997	1/8/1997	SS-17	Surface	Dibenzo(a,h)anthracene	0.36 J	0.137	0.66	2.6
EcoChem 1997	1/7/1997	SS-14	Surface	Dibenzo(a,h)anthracene	0.19 J	0.137	0.66	1.4
EcoChem 1997	1/8/1997	SS-18	Surface	Dibenzo(a,h)anthracene	0.16 J	0.137	0.66	1.2
EcoChem 1997	1/8/1997	SS-20	Surface	Dibenzofuran	1.4	80	1.2	1.2
Erda Environmental 1996	12/1/1994	T #6B D		Fluoranthene	100	3,200	1.2	83
EcoChem 1997	1/8/1997	SS-20	Surface	Fluoranthene	31	3,200	24	1.3
Erda Environmental 1996	12/1/1994	T #3 C	C	Fluoranthene	13	3,200	1.2	11
Erda Environmental 1996	12/1/1994	T #2 C	C	Fluoranthene	1.7	3,200	1.2	1.4
Erda Environmental 1996	12/1/1994	T #6 C	C	Fluoranthene	1.7	3,200	1.2	1.4
Olympus 1994	11/24/1993	TP-6		Fluoranthene	1.5	3,200	1.2	1.3
Erda Environmental 1996	12/1/1994	T #3N D		Fluoranthene	1.5	3,200	1.2	1.3
Erda Environmental 1996	12/1/1994	T #4 C	C	Fluoranthene	1.3	3,200	1.2	1.1
Erda Environmental 1996	12/1/1994	T #6B D		Fluorene	3.1	3,200	0.081	38
EcoChem 1997	1/7/1997	SS-14	Surface	Fluorene	3	3,200	1.6	1.9
EcoChem 1997	1/8/1997	SS-20	Surface	Fluorene	3	3,200	1.6	1.9
Erda Environmental 1996	12/1/1994	T #3 C	C	Fluorene	0.46	3,200	0.081	5.7
Olympus 1994	11/24/1993	TP-6		Fluorene	0.31 J	3,200	0.081	3.8
Erda Environmental 1996	12/1/1994	T #3S D		Fluorene	0.1	3,200	0.081	1.2
Erda Environmental 1996	12/1/1994	T #2 C	C	Fluorene	0.086	3,200	0.081	1.1
Olympus 1994	11/12/1993	TP-2		Heavy oil-range hydrocarbons	21,000	2,000		11
EcoChem 1997	1/7/1997	SS-21	Surface	Heavy oil-range hydrocarbons	2,700	2,000		1.4
Erda Environmental 1996	12/1/1994	T #6B D		Indeno(1,2,3-cd)pyrene	83	1.37	0.088	943
Erda Environmental 1996	12/1/1994	T #3 C	C	Indeno(1,2,3-cd)pyrene	2	1.37	0.088	23
EcoChem 1997	1/8/1997	SS-17	Surface	Indeno(1,2,3-cd)pyrene	1.9 J	1.37	1.8	1.4
EcoChem 1997	1/8/1997	SS-20	Surface	Indeno(1,2,3-cd)pyrene	1.9 J	1.37	1.8	1.4

Table 15
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Terminal 105

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
Port of Seattle 1993a	12/7/1992	SS3	0 - 4	Indeno(1,2,3-cd)pyrene	1.6	1.37	1.8	1.2
Erda Environmental 1996	12/1/1994	T #2 C	C	Indeno(1,2,3-cd)pyrene	0.44	1.37	0.088	5.0
Erda Environmental 1996	12/1/1994	T #3N D		Indeno(1,2,3-cd)pyrene	0.43	1.37	0.088	4.9
Olympus 1994	11/24/1993	TP-6		Indeno(1,2,3-cd)pyrene	0.34 J	1.37	0.088	3.9
Erda Environmental 1996	12/1/1994	T #6 C	C	Indeno(1,2,3-cd)pyrene	0.33	1.37	0.088	3.8
Erda Environmental 1996	12/1/1994	T #4 C	C	Indeno(1,2,3-cd)pyrene	0.28	1.37	0.088	3.2
Erda Environmental 1996	12/1/1994	T #3S D		Indeno(1,2,3-cd)pyrene	0.26	1.37	0.088	3.0
Erda Environmental 1996	12/1/1994	T #1 C	C	Indeno(1,2,3-cd)pyrene	0.18	1.37	0.088	2.0
Port of Seattle 1995	10/11/1994	Area K Confirmation-8		Lead	1,000	250	1,300	4.0
EcoChem 1997	1/7/1997	SS-12	Surface	Lead	730 J	250	1,300	2.9
Port of Seattle 1995	10/11/1994	Area K Confirmation-13		Lead	660	250	1,300	2.6
Port of Seattle 1995	10/11/1994	Area K Confirmation-9		Lead	620	250	1,300	2.5
EcoChem 1997	1/7/1997	SS-10	Surface	Lead	462 J	250	1,300	1.8
Erda Environmental 1996	12/1/1994	T #3N D		Lead	460	250	67	6.9
Port of Seattle 1995	10/10/1994	Area K Confirmation-6		Lead	390	250	1,300	1.6
Olympus 1994	11/24/1993	TP-9		Lead	340	250	67	5.1
Erda Environmental 1996	12/1/1994	T #2 C	C	Lead	290	250	67	4.3
Erda Environmental 1996	12/1/1994	T #3S D		Lead	280	250	67	4.2
Olympus 1994	11/24/1993	TP-7		Lead	220	250	67	3.3
Erda Environmental 1996	12/1/1994	T #3 C	C	Lead	220	250	67	3.3
Olympus 1994	11/12/1993	TP-3		Lead	190	250	67	2.8
Erda Environmental 1996	12/1/1994	T #3B D		Lead	190	250	67	2.8
Port of Seattle 1995	10/10/1994	Area K Confirmation-5		Lead	180	250	67	2.7
Olympus 1994	11/24/1993	TP-6		Lead	160	250	67	2.4
North Creek 1992	2/13/1992	202-0564		Lead	150	250	67	2
Olympus 1994	11/24/1993	TP-5		Lead	130	250	67	1.9
North Creek 1992	2/13/1992	202-0563		Lead	89	250	67	1
Erda Environmental 1996	12/1/1994	T #6 C	C	Lead	87	250	67	1.3
Port of Seattle 1995	10/11/1994	Area K Confirmation-11		Lead	85	250	67	1.3
Port of Seattle 1995	10/10/1994	Area K Confirmation-3		Lead	78	250	67	1.2
Erda Environmental 1996	12/1/1994	T #3N D		Mercury	1.1	2	0.03	37
EcoChem 1997	1/7/1997	SS-10	Surface	Mercury	0.75 J	2	0.59	1.3
Erda Environmental 1996	12/1/1994	T #3 C	C	Mercury	0.71	2	0.03	24

Table 15
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Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
Erda Environmental 1996	12/1/1994	T #2 C	C	Mercury	0.67	2	0.03	22
Erda Environmental 1996	12/1/1994	T #6 C	C	Mercury	0.67	2	0.03	22
Erda Environmental 1996	12/1/1994	T #1 C	C	Mercury	0.66	2	0.03	22
Olympus 1994	11/24/1993	TP-6		Mercury	0.26	2	0.03	8.7
Olympus 1994	11/12/1993	TP-1		Mercury	0.13	2	0.03	4.3
North Creek 1992	2/13/1992	202-0563		Mercury	0.089	2	0.03	3.0
North Creek 1992	2/13/1992	202-0564		Mercury	0.074	2	0.03	2
Port of Seattle 1993a	12/7/1992	SS1	0 - 6	Methylene chloride	0.12 G	0.02		6.0
Port of Seattle 1993a	12/7/1992	SS3	0 - 4	Methylene chloride	0.072 G	0.02		3.6
Olympus 1994	11/24/1993	TP-4		Methylene chloride	0.061	0.02		3.1
Olympus 1994	11/24/1993	TP-6		Methylene chloride	0.061	0.02		3.1
Olympus 1994	11/24/1993	TP-7		Methylene chloride	0.061	0.02		3.1
Olympus 1994	11/24/1993	TP-8		Methylene chloride	0.061	0.02		3.1
Port of Seattle 1993a	12/7/1992	SS2	0 - 5.5	Methylene chloride	0.035 G	0.02		1.8
Olympus 1994	11/24/1993	TP-5		Methylene chloride	0.028	0.02		1.4
Olympus 1994	11/24/1993	TP-9		Methylene chloride	0.028	0.02		1.4
EcoChem 1997	1/7/1997	SS-21	Surface	Methylene chloride	0.027	0.02		1.4
EcoChem 1997	1/8/1997	SS-5	Surface	Naphthalene	11 J	5	3.8	2.9
Port of Seattle 1989	9/1/1989	3 Tank T-105F (Bottom)	Tank Bottom	PCBs, total	4.8	0.5	0.065	74
Erda Environmental 1996	12/1/1994	T #3N D		PCBs, total	1.5	0.5	0.065	23
Olympus 1994	11/24/1993	TP-5		PCBs, total	1.4	0.5	0.065	22
Port of Seattle 1993a	12/7/1992	SS3	0 - 4	PCBs, total	1.4	0.5	1.3	2.8
Erda Environmental 1996	12/1/1994	T #3 C	C	PCBs, total	1.34	0.5	0.065	21
Port of Seattle 1989	9/1/1989	4 Tank T-105F (East end)	Tank Bottom	PCBs, total	0.94	0.5	0.065	14
Olympus 1994	11/24/1993	TP-6		PCBs, total	0.9	0.5	0.065	14
EcoChem 1997	1/7/1997	SS-10	Surface	PCBs, total	0.83	0.5	1.3	1.7
Erda Environmental 1996	12/1/1994	T #2 C	C	PCBs, total	0.73	0.5	0.065	11
Olympus 1994	11/12/1993	TP-3		PCBs, total	0.7	0.5	0.065	11
EcoChem 1997	1/7/1997	SS-21	Surface	PCBs, total	0.61	0.5	1.3	1.2
EcoChem 1997	1/8/1997	SS-17	Surface	PCBs, total	0.56	0.5	1.3	1.1
EcoChem 1997	1/7/1997	SS-9	Surface	PCBs, total	0.51	0.5	1.3	1.0
Erda Environmental 1996	12/1/1994	T #3S D		PCBs, total	0.5	0.5	0.065	7.7
Erda Environmental 1996	12/1/1994	T #3B D		PCBs, total	0.31	0.5	0.065	4.8
Erda Environmental 1996	12/1/1994	T #6 Sides C	C	PCBs, total	0.26	0.5	0.065	4.0
Erda Environmental 1996	12/1/1994	T #6 C	C	PCBs, total	0.259	0.5	0.065	4.0
Erda Environmental 1996	12/1/1994	T #6B D		PCBs, total	0.23	0.5	0.065	3.5
Erda Environmental 1996	12/1/1994	T #1 C	C	PCBs, total	0.103	0.5	0.065	1.6

Table 15
Chemicals Detected Above Screening Levels in Soil
Terminal 105

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
EcoChem 1997	1/8/1997	SS-5 Dup	Surface	Pentachlorophenol	140 JD	2.5	0.73	192
Erda Environmental 1996	12/1/1994	T #6B D		Phenanthrene	49		0.49	100
EcoChem 1997	1/8/1997	SS-5	Surface	Phenanthrene	37 J		9.7	3.8
EcoChem 1997	1/8/1997	SS-20	Surface	Phenanthrene	25		9.7	2.6
EcoChem 1997	1/7/1997	SS-14	Surface	Phenanthrene	11		9.7	1.1
Erda Environmental 1996	12/1/1994	T #3 C	C	Phenanthrene	6.4		0.49	13
Olympus 1994	11/24/1993	TP-6		Phenanthrene	2.0		0.49	4.1
Erda Environmental 1996	12/1/1994	T #2 C	C	Phenanthrene	0.89		0.49	1.8
Erda Environmental 1996	12/1/1994	T #3N D		Phenanthrene	0.79		0.49	1.6
Erda Environmental 1996	12/1/1994	T #3S D		Phenanthrene	0.78		0.49	1.6
Erda Environmental 1996	12/1/1994	T #4 C	C	Phenanthrene	0.52		0.49	1.1
Erda Environmental 1996	12/1/1994	T #6B D		Pyrene	100	2,400	1.4	71
EcoChem 1997	1/8/1997	SS-5	Surface	Pyrene	98 J	2,400	28	3.5
Erda Environmental 1996	12/1/1994	T #3 C	C	Pyrene	14	2,400	1.4	10
Olympus 1994	11/24/1993	TP-6		Pyrene	2.1	2,400	1.4	1.5
Erda Environmental 1996	12/1/1994	T #6 C	C	Pyrene	1.9	2,400	1.4	1.4
Erda Environmental 1996	12/1/1994	T #3N D		Pyrene	1.8	2,400	1.4	1.3
Olympus 1994	11/24/1993	TP-9		Silver	1.6	400	0.61	2.6
Olympus 1994	11/12/1993	TP-3		Silver	1.4	400	0.61	2.3
Olympus 1994	11/24/1993	TP-8		Silver	0.73	400	0.61	1.2
EcoChem 1997	1/7/1997	SS-10	Surface	Zinc	20,800 J	24,000	770	27
Erda Environmental 1996	12/1/1994	T #3N D		Zinc	1,600	24,000	38	42
Olympus 1994	11/24/1993	TP-9		Zinc	1,100	24,000	38	29
Erda Environmental 1996	12/1/1994	T #3S D		Zinc	990	24,000	38	26
Erda Environmental 1996	12/1/1994	T #2 C	C	Zinc	850	24,000	38	22
Erda Environmental 1996	12/1/1994	T #3 C	C	Zinc	600	24,000	38	16
Erda Environmental 1996	12/1/1994	T #3B D		Zinc	590	24,000	38	16
Olympus 1994	11/12/1993	TP-3		Zinc	500	24,000	38	13
Erda Environmental 1996	12/1/1994	T #6 C	C	Zinc	300	24,000	38	7.9
Olympus 1994	11/24/1993	TP-5		Zinc	280	24,000	38	7.4
Olympus 1994	11/24/1993	TP-6		Zinc	180	24,000	38	4.7
North Creek 1992	2/13/1992	202-0563		Zinc	170	24,000	38	4.5
North Creek 1992	2/13/1992	202-0564		Zinc	100	24,000	38	3
Erda Environmental 1996	12/1/1994	T #1 C	C	Zinc	90	24,000	38	2.4
Olympus 1994	11/24/1993	TP-4		Zinc	69	24,000	38	1.8
Olympus 1994	11/24/1993	TP-7		Zinc	51	24,000	38	1.3
Olympus 1994	11/24/1993	TP-8		Zinc	49	24,000	38	1.3

Table 15
Chemicals Detected Above Screening Levels in Soil
Terminal 105

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor

ft bgs - Feet below ground surface
mg/kg - Milligrams per kilogram
MTCA - Model Toxics Control Act
CSL - Cleanup Screening Level from Washington Sediment Management Standards
C - Composite sample
D - Duplicate sample
F - Results is from the analysis of a diluted sample.
G - Possible blank contamination
J - Estimated value

a - The lower of MTCA Method A or B cleanup levels was selected, from CLARC database.
b - Based on CSL. Where two screening levels are listed for a single chemical, the higher screening levels are for soil samples collected from the vadose zone and the lower screening levels are for soil samples collected from the saturated zone (SAIC 2006).
Depth to groundwater is tidally influenced at this property, and was observed between 3 and 7 ft bgs.
Table presents detected chemicals only.
Exceedance factors are the ratio of the detected concentration to the MTCA Cleanup Level or Soil-to-Sediment Screening Level, whichever is lower.

Table 16
Chemicals Detected Above Screening Levels in Groundwater
Terminal 105

Source	Sample Date	Sample Location	Chemical	GW Conc'n (ug/L)	MTCA Cleanup Level[a] (ug/L)	GW-to-Sediment Screening Level[b] (ug/L)	Exceedance Factor
Port of Seattle 1985a	1/1/1983	MW-1	Arsenic	20	0.0583	370	343
Port of Seattle 1985a	1/1/1983	MW-3	Arsenic	20	0.0583	370	343
Harding Lawson 1983	6/9/1983	MW-3	Arsenic	14	0.0583	370	240
Port of Seattle 1985a	5/1/1982	MW-3	Arsenic	14	0.0583	370	240
Harding Lawson 1983	9/16/1983	MW-3	Arsenic	13	0.0583	370	223
Port of Seattle 1985a	8/1/1982	MW-3	Arsenic	13	0.0583	370	223
Port of Seattle 1985a	1/1/1983	MW-2	Arsenic	12	0.0583	370	206
Harding Lawson 1983	6/9/1983	MW-2	Arsenic	10	0.0583	370	172
Port of Seattle 1985a	5/1/1982	MW-2	Arsenic	10	0.0583	370	172
EcoChem 1997	1/10/1997	OMW-4	Arsenic	9.9 T	0.0583	370	170
Harding Lawson 1983	9/16/1983	MW-1	Arsenic	9	0.0583	370	154
Harding Lawson 1983	9/16/1983	MW-2	Arsenic	9	0.0583	370	154
Port of Seattle 1985a	8/1/1982	MW-1	Arsenic	9.0	0.0583	370	154
Port of Seattle 1985a	8/1/1982	MW-2	Arsenic	9.0	0.0583	370	154
Harding Lawson 1983	6/9/1983	MW-1	Arsenic	6	0.0583	370	103
Port of Seattle 1985a	5/1/1982	MW-1	Arsenic	6.0	0.0583	370	103
Harding Lawson 1983	4/6/1983	MW-1	Arsenic	3	0.0583	370	51
Harding Lawson 1983	4/6/1983	MW-3	Arsenic	3	0.0583	370	51
Port of Seattle 1985a	3/1/1982	MW-1	Arsenic	3.0	0.0583	370	51
Port of Seattle 1985a	3/1/1982	MW-3	Arsenic	3.0	0.0583	370	51
Harding Lawson 1983	3/3/1983	MW-1	Arsenic	2.6	0.0583	370	45
Port of Seattle 1985a	2/1/1982	MW-1	Arsenic	2.6	0.0583	370	45
Harding Lawson 1983	4/6/1983	MW-2	Arsenic	2	0.0583	370	34
Port of Seattle 1985a	3/1/1982	MW-2	Arsenic	2.0	0.0583	370	34
Harding Lawson 1983	3/3/1983	MW-3	Arsenic	1.6	0.0583	370	27
Port of Seattle 1985a	2/1/1982	MW-3	Arsenic	1.6	0.0583	370	27
Harding Lawson 1983	12/15/1982	MW-1	bis(2-Ethylhexyl)phthalate	125	6.25	6.8	20
Harding Lawson 1983	12/15/1982	MW-3	bis(2-Ethylhexyl)phthalate	16	6.25	6.8	2.6
Harding Lawson 1983	3/3/1983	MW-2	Cadmium	10	5	3.4	2.9
Port of Seattle 1985a	2/1/1982	MW-2	Cadmium	10	5	3.4	2.9
Harding Lawson 1983	12/15/1982	MW-3	Cadmium	4.3	5	3.4	1.3
Port of Seattle 1985a	Pre 1982	MW-3	Cadmium	4.3	5	3.4	1.3
Harding Lawson 1983	3/3/1983	MW-3	Cadmium	4	5	3.4	1.2
Port of Seattle 1985a	2/1/1982	MW-3	Cadmium	4.0	5	3.4	1.2
Harding Lawson 1983	6/9/1983	MW-1	Dieldrin	1.6	0.8		2.0
Harding Lawson 1983	3/3/1983	MW-1	Lead	130	15	13	10
Port of Seattle 1985a	2/1/1982	MW-1	Lead	130	15	13	10
Harding Lawson 1983	4/6/1983	MW-1	Lead	28	15	13	2.2
Harding Lawson 1983	3/3/1983	MW-2	Lead	28	15	13	2.2
Port of Seattle 1985a	3/1/1982	MW-1	Lead	28	15	13	2.2

Table 16
Chemicals Detected Above Screening Levels in Groundwater
Terminal 105

Source	Sample Date	Sample Location	Chemical	GW Conc'n (ug/L)	MTCA Cleanup Level[a] (ug/L)	GW-to-Sediment Screening Level[b] (ug/L)	Exceedance Factor
Port of Seattle 1985a	2/1/1982	MW-2	Lead	28	15	13	2.2
Harding Lawson 1983	12/15/1982	MW-1	Lead	20	15	13	1.5
Port of Seattle 1985a	Pre 1982	MW-1	Lead	20	15	13	1.5
Harding Lawson 1983	3/3/1983	MW-1	Mercury	0.5	2	0.0074	68
Port of Seattle 1985a	2/1/1982	MW-1	Mercury	0.5	2	0.0074	68
Harding Lawson 1983	3/3/1983	MW-3	Mercury	0.2	2	0.0074	27
Port of Seattle 1985a	2/1/1982	MW-3	Mercury	0.2	2	0.0074	27
Harding Lawson 1983	3/3/1983	MW-1	Methylene chloride	25	5		5.0
Harding Lawson 1983	3/3/1983	MW-2	Methylene chloride	22	5		4.4
Harding Lawson 1983	3/3/1983	MW-3	Methylene chloride	21	5		4.2
Harding Lawson 1983	4/6/1983	MW-2	Methylene chloride	11	5		2.2
Harding Lawson 1983	6/9/1983	MW-2	Methylene chloride	7	5		1.4
Harding Lawson 1983	6/9/1983	MW-1	Methylene chloride	6	5		1.2
Harding Lawson 1983	6/9/1983	MW-3	Methylene chloride	6	5		1.2
Harding Lawson 1983	12/15/1982	MW-3	Zinc	500	4,800	76	6.6
Port of Seattle 1985a	Pre 1982	MW-3	Zinc	500	4,800	76	6.6
Harding Lawson 1983	3/3/1983	MW-3	Zinc	260	4,800	76	3.4
Port of Seattle 1985a	2/1/1982	MW-3	Zinc	260	4,800	76	3.4
Harding Lawson 1983	3/3/1983	MW-2	Zinc	160	4,800	76	2.1
Port of Seattle 1985a	2/1/1982	MW-2	Zinc	160	4,800	76	2.1
Harding Lawson 1983	9/16/1983	MW-3	Zinc	110	4,800	76	1.4
Port of Seattle 1985a	8/1/1982	MW-3	Zinc	110	4,800	76	1.4
Harding Lawson 1983	6/9/1983	MW-3	Zinc	100	4,800	76	1.3
Port of Seattle 1985a	5/1/1982	MW-3	Zinc	100	4,800	76	1.3
Harding Lawson 1983	4/6/1983	MW-3	Zinc	95	4,800	76	1.3
Port of Seattle 1985a	3/1/1982	MW-3	Zinc	95	4,800	76	1.3
Harding Lawson 1983	4/6/1983	MW-2	Zinc	78	4,800	76	1.0
Port of Seattle 1985a	3/1/1982	MW-2	Zinc	78	4,800	76	1.0

GW - Groundwater
ug/L - Micrograms per liter
MTCA - Model Toxics Control Act
CSL - Cleanup Screening Level from Washington Sediment Management Standards
T - Total metal

a - The lower of MTCA Method A or B cleanup levels was selected, from CLARC database.
b - Based on CSL (SAIC 2006).
Table presents detected chemicals only.
Exceedance factors are the ratio of the detected concentration to the MTCA Cleanup Level or Groundwater-to-Sediment Screening Value, whichever is lower.

Table 17
Chemicals Detected Above Screening Levels in Stormwater
Terminal 105

Source	Sample Date	Sample Location	Chemical	Stormwater Conc'n (ug/L)	Marine Chronic WQS[a] (ug/L)	Marine Acute WQS[b] (ug/L)	Chronic WQS Exceedance Factor	GW-to-Sediment Screening Level[c] (ug/L)	Exceedance Factor
Olympus 1994	11/12/1993	CB-2	Cadmium	6	8.8	40	<1	3.4	1.8
Olympus 1994	11/12/1993	CB-2	Copper	110	2	2	46	120	<1
Olympus 1994	11/12/1993	CB-1	Copper	63	2.4	2.4	26	120	<1
Olympus 1994	11/12/1993	CB-1	Lead	200	8.1	210	25	13	15
Olympus 1994	11/12/1993	CB-2	Lead	190	8	210	23	13	15
Olympus 1994	11/12/1993	CB-3	Lead	32	8	210	4.0	13	2.5
Olympus 1994	11/12/1993	CB-2	Zinc	1,000	81	90	12	76	13
Olympus 1994	11/12/1993	CB-1	Zinc	480	81	90	5.9	76	6.3
Olympus 1994	11/12/1993	CB-3	Zinc	50	81	90	<1	76	<1

ug/L - Microgram per liter
WQS - Water Quality Standards
GW - Groundwater
CSL - Cleanup Screening Level from Washington Sediment Management Standards

a - The lower of the ARARS for Surface Water Aquatic Life (Marine/Chronic) were selected from CLARC database
b - The lower of the ARARS for Surface Water Aquatic Life (Marine/Acute) were selected from CLARC database
c - Based on CSL (SAIC 2006).
Table presents detected chemicals only.
Exceedance factors are the ratio of the detected concentrations to the minimum screening level availbe in the WA State CLARC database, exceedance factors are shown only if they are greater than 1.

Table 18
Chemicals Detected Above Screening Levels in Storm Drain Solids
Terminal 105

Source	Sample Date	Sample Location	Chemical	Storm Drain Solids Conc'n (mg/kg DW)	SQS/MTCA Method A (mg/kg DW)	CSL (mg/kg DW)	Exceedance Factor
Olympus 1994	11/12/1993	CB-1	Arsenic	98 T	57	93	1.7
Olympus 1994	11/12/1993	CB-1	Cadmium	10 T	5.1	6.7	2.0
Olympus 1994	11/12/1993	CB-2	Cadmium	9.8 T	5.1	6.7	1.9
Olympus 1994	11/12/1993	CB-1	Heavy oil-range hydrocarbons	17,000	2,000		8.5
Olympus 1994	11/12/1993	CB-2	Heavy oil-range hydrocarbons	11,000	2,000		5.5
Olympus 1994	11/12/1993	CB-2	Lead	490 T	450	530	1.1
Olympus 1994	11/12/1993	CB-1	Zinc	3,400 T	410	960	8.3
Olympus 1994	11/12/1993	CB-2	Zinc	1,500 T	410	960	3.7

mg/kg - Milligrams per kilogram
DW - Dry weight
SQS - SMS Sediment Quality Standard
MTCA - Model Toxics Control Act
CSL - SMS Cleanup Screening Level
T - Total metals

Table presents detected chemicals only.
Organic chemicals were not normalized for organic carbon content during testing and these chemicals were compared with the LAET and 2LAET instead of the SQS and CSL.
Exceedance factors are the ratio of the detected concentrations to the SQS or CSL, exceedance factors are shown only if they are greater than 1.

Table 19
Chemicals Detected Above Screening Levels in Soil
Former Seaboard Lumber

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
ESL 1992	8/26/1992	MW4-1		1,2-Dichlorobenzene	0.15	7,200	0.0038	39
ESL 1992	8/27/1992	920827-3		1,2-Dichlorobenzene	0.069 G	7,200	0.0038	18
ESL 1992	8/25/1992	MW3-2		1,2-Dichlorobenzene	0.018	7,200	0.0038	4.7
ESL 1992	8/27/1992	920827-1		1,2-Dichlorobenzene	0.015 G	7,200	0.0038	3.9
ESL 1992	8/25/1992	SB3-1		1,2-Dichlorobenzene	0.014 GJ	7,200	0.0038	3.7
ESL 1992	8/27/1992	920827-2		1,2-Dichlorobenzene	0.0079 G	7,200	0.0038	2.1
ESL 1992	8/25/1992	SB1-1		1,2-Dichlorobenzene	0.0058 G	7,200	0.0038	1.5
ESL 1992	8/26/1992	MW5-2Dup		1,2-Dichlorobenzene	0.0044 DGJ	7,200	0.0038	1.2
ESL 1992	8/26/1992	MW6-2		1,2-Dichlorobenzene	0.0043 GJ	7,200	0.0038	1.1
ESL 1992	8/25/1992	SB1-2		1,2-Dichlorobenzene	0.0042 J	7,200	0.0038	1.1
Herrera 1997a	11/22/96 - 12/13/96	SB-7	2.5 - 4.5	2-Methylnaphthalene	1.2 J	320	0.073	16
ESL 1992	8/25/1992	MW2-1		2-Methylnaphthalene	0.74 J	320	0.073	10
Herrera 1997a	11/22/96 - 12/13/96	SB-9	12.5 - 14.5	2-Methylnaphthalene	0.41 J	320	0.073	5.6
Herrera 1997a	11/22/96 - 12/13/96	SB-7	2.5 - 4.5	Acenaphthene	0.23 J	4,800	0.06	3.8
Herrera 1997a	11/22/96 - 12/13/96	SB-20	seawall 3 - 4	Arsenic	54	0.67		81
Herrera 1996	3/12/96 - 4/7/96	MW-5	2.5 - 4	Arsenic	50	0.67	590	75
Herrera 1996	3/12/96 - 4/7/96	MW-5	5 - 6.5	Arsenic	40	0.67	590	60
Shannon & Wilson 2001	2/22/1999	066		Arsenic	33	0.67	590	49
Shannon & Wilson 2001	2/22/1999	061		Arsenic	27	0.67	590	40
Herrera 1997a	11/22/96 - 12/13/96	SB-7	2.5 - 4.5	Arsenic	27	0.67	590	40
Shannon & Wilson 2001	2/22/1999	062		Arsenic	18	0.67	590	27
Herrera 1997a	11/22/96 - 12/13/96	SB-20	10.0 - 12	Arsenic	16	0.67		24
Herrera 1996	3/12/96 - 4/7/96	TP-10	2.5	Arsenic	13	0.67	590	19
Herrera 1997a	11/22/96 - 12/13/96	SB-4	Surface	Arsenic	8	0.67	12,000	12
ESL 1992	8/25/1992	SB1-2Dup		Arsenic	7.1 D	0.67	590	11
Herrera 1997a	11/22/96 - 12/13/96	SB-16	1	Arsenic	7	0.67	12,000	10
Herrera 1996	3/12/96 - 4/7/96	SB-1	5 - 6.5	Arsenic	7	0.67	590	10
Herrera 1997a	11/22/96 - 12/13/96	SB-21	0.5	Arsenic	6	0.67		9.0
Herrera 1996	3/12/96 - 4/7/96	TP-11E	0.8 - 3.5	Arsenic	6	0.67	590	9.0
ESL 1992	8/27/1992	920827-2		Arsenic	4.9	0.67	590	7.3
ESL 1992	8/25/1992	SB1-2		Arsenic	4.9	0.67	590	7.3
ESL 1992	8/26/1992	SB5-1		Arsenic	3.8	0.67	590	5.7
ESL 1992	8/26/1992	SB7-1		Arsenic	3.7	0.67	590	5.5
ESL 1992	8/26/1992	MW4-1		Arsenic	3.4	0.67	590	5.1
ESL 1992	8/26/1992	SB5-3		Arsenic	3.0	0.67	590	4.5
ESL 1992	8/25/1992	MW2-2		Arsenic	2.8	0.67	590	4.2
ESL 1992	8/26/1992	SB4-2		Arsenic	2.8	0.67	590	4.2
ESL 1992	8/26/1992	SB4-3		Arsenic	2.4	0.67	590	3.6

Table 19
Chemicals Detected Above Screening Levels in Soil
Former Seaboard Lumber

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
ESL 1992	8/26/1992	MW5-3		Arsenic	1.9	0.67	590	2.8
ESL 1992	8/26/1992	MW6-3		Arsenic	1.9	0.67	590	2.8
ESL 1992	8/25/1992	MW3-1		Arsenic	1.6	0.67	590	2.4
ESL 1992	8/25/1992	MW2-1		Benzo(a)anthracene	0.33	1.37	0.27	1.2
ESL 1992	8/25/1992	MW2-1		Benzo(a)pyrene	0.31	0.137	0.21	2.3
Herrera 1996	3/12/96 - 4/7/96	TP-17	2.5	Benzo(a)pyrene	0.28	0.137	0.21	2.0
Herrera 1997a	11/22/96 - 12/13/96	SB-4	Surface	Benzo(a)pyrene	0.27 J	0.137	4.2	2.0
Herrera 1996	3/12/96 - 4/7/96	TP-19	2.5	Benzo(g,h,i)perylene	0.18		0.078	2.3
ESL 1992	8/25/1992	MW2-1		Benzo(g,h,i)perylene	0.18 J		0.078	2.3
ESL 1992	8/25/1992	MW2-1		Benzofluoranthenes, total	0.56	1.37	0.45	1.2
Herrera 1996	3/12/96 - 4/7/96	MW-5	2.5 - 4	Cadmium	3	2	1.7	1.8
Herrera 1996	3/12/96 - 4/7/96	MW-5	7.5 - 9	Cadmium	2	2	1.7	1.2
Herrera 1997a	11/22/96 - 12/13/96	SB-16	7.5 - 9.5	cPAHs, total	30	0.137		219
Herrera 1997a	11/22/96 - 12/13/96	SB-16	3.0 - 5	cPAHs, total	11	0.137		80
ESL 1995	9/7/1993	ES-3	0.9	cPAHs, total	3.973	0.137		29
Herrera 1997a	11/22/96 - 12/13/96	SB-16	1	cPAHs, total	2.3	0.137		17
ESL 1995	9/7/1993	ES-1	0 - 1.5	cPAHs, total	2.228	0.137		16
ESL 1995	9/7/1993	ES-5	1.8	cPAHs, total	2.052	0.137		15
Herrera 1996	3/12/96 - 4/7/96	TP-20	2.5	cPAHs, total	1.75	0.137		13
Herrera 1997a	11/22/96 - 12/13/96	SB-20	10.0 - 12	cPAHs, total	1.5	0.137		11
Herrera 1997a	11/22/96 - 12/13/96	SB-4	Surface	cPAHs, total	1	0.137		7.3
Herrera 1997a	11/22/96 - 12/13/96	SB-21	0.5	cPAHs, total	0.74	0.137		5.4
ESL 1995	9/7/1993	ES-5	2.25	cPAHs, total	0.556	0.137		4.1
Herrera 1997a	11/22/96 - 12/13/96	SB-17	2.5 - 4.5	cPAHs, total	0.53	0.137		3.9
Herrera 1997a	11/22/96 - 12/13/96	SB-17	0.5 - 2.5	cPAHs, total	0.45	0.137		3.3
ESL 1995	9/7/1993	ES-2	2	cPAHs, total	0.309	0.137		2.3
Herrera 1997a	11/22/96 - 12/13/96	SB-8	7.5 - 9.5	cPAHs, total	0.3 J	0.137		2.2
Herrera 1997a	11/22/96 - 12/13/96	SB-7	2.5 - 4.5	cPAHs, total	0.29 J	0.137		2.1
ESL 1995	9/7/1993	ES-7	0.9	cPAHs, total	0.26	0.137		1.9
ESL 1995	9/7/1993	ES-3	1.1	cPAHs, total	0.236	0.137		1.7
ESL 1995	9/7/1993	ES-5	0.5	cPAHs, total	0.164	0.137		1.2
Shannon & Wilson 2001		TT-1		Diesel-range hydrocarbons	26,300	2,000		13
Shannon & Wilson 2001		TT-2		Diesel-range hydrocarbons	23,500	2,000		12
Health Risk 1999	3/31/1999	TT1 (03-194-01)		Diesel-range hydrocarbons	21,000	2,000		11
Health Risk 1999	3/31/1999	TT2 (03-194-02)		Diesel-range hydrocarbons	19,000	2,000		9.5
Shannon & Wilson 2001	3/29/1999	099		Diesel-range hydrocarbons	18,000	2,000		9.0
Health Risk 1999	4/16/1999	SPC.1		Diesel-range hydrocarbons	14,000	2,000		7.0
Shannon & Wilson 2001	3/23/1999	083		Diesel-range hydrocarbons	5,400	2,000		2.7

Table 19
Chemicals Detected Above Screening Levels in Soil
Former Seaboard Lumber

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
Herrera 1996	3/12/96 - 4/7/96	MW-4	0.5 - 1.5	Diesel-range hydrocarbons	2,600	2,000		1.3
Shannon & Wilson 2001		T-1		Diesel-range hydrocarbons	2,590	2,000		1.3
Shannon & Wilson 2001	2/22/1999	061		Diesel-range hydrocarbons	2,130	2,000		1.1
Health Risk 1999	3/31/1999	T1		Diesel-range hydrocarbons	2,100	2,000		1.1
Herrera 1997a	11/22/96 - 12/13/96	SB-7	2.5 - 4.5	Fluorene	0.5 J	3,200	0.081	6.2
Herrera 1996	3/12/96 - 4/7/96	TP-18	4	Gasoline-range hydrocarbons	780	30		26
Herrera 1996	3/12/96 - 4/7/96	TP-18	2.5	Gasoline-range hydrocarbons	140	30		4.7
ESL 1992	NA	9208644-1		Heavy oil-range hydrocarbons	14,000	2,000		7.0
Health Risk 1999	3/31/1999	TT1 (03-194-01)		Heavy oil-range hydrocarbons	5,300	2,000		2.7
Health Risk 1999	3/31/1999	TT2 (03-194-02)		Heavy oil-range hydrocarbons	4,500	2,000		2.3
Health Risk 1999	4/16/1999	SPC.1		Heavy oil-range hydrocarbons	4,000	2,000		2.0
ESL 1992	8/25/1992	MW2-1		Indeno(1,2,3-cd)pyrene	0.18 J	1.37	0.088	2.0
Herrera 1996	3/12/96 - 4/7/96	TP-18	2.5	Indeno(1,2,3-cd)pyrene	0.17	1.37	0.088	1.9
Herrera 1996	3/12/96 - 4/7/96	TP-11E	0.8 - 3.5	Lead	1,210 J	250	67	18
Herrera 1997a	11/22/96 - 12/13/96	SB-20	7.5 - 9.5	Lead	1,040	250		4.2
Shannon & Wilson 2001	3/23/1999	070		Lead	920	250	67	14
Herrera 1996	3/12/96 - 4/7/96	TP-9	1.7 - 2	Lead	849	250	1,300	3.4
ESL 1995	1994	N 1		Lead	670	250	67	10
Herrera 1997a	11/22/96 - 12/13/96	SB-13	1.0 - 2	Lead	641	250	1,300	2.6
ESL 1995	9/7/1993	ES-5	1.8	Lead	560	250	1,300	2.2
Herrera 1996	3/12/96 - 4/7/96	TP-7	1.3 - 1.7	Lead	484	250	1,300	1.9
Herrera 1996	3/12/96 - 4/7/96	TP-6	0.6 - 0.8	Lead	453	250	1,300	1.8
Herrera 1997a	11/22/96 - 12/13/96	SB-17	2.5 - 4.5	Lead	416 J	250	67	6.2
Shannon & Wilson 2001	3/23/1999	077		Lead	390	250	67	5.8
Shannon & Wilson 2001	2/18/1999	046		Lead	340	250	67	5.1
Herrera 1997a	11/22/96 - 12/13/96	SB-17	0.5 - 2.5	Lead	335 J	250	67	5.0
ESL 1995	9/7/1993	ES-3	0.9	Lead	330	250	1,300	1.3
Shannon & Wilson 2001	3/23/1999	073		Lead	330	250	67	4.9
Health Risk 1999	5/3/1999	132 6A		Lead	310	250	67	4.6
Herrera 1996	3/12/96 - 4/7/96	TP-8	2.2 - 2.5	Lead	300	250	67	4.5
Herrera 1997a	11/22/96 - 12/13/96	SB-20	10.0 - 12	Lead	283	250		1.1
ESL 1992	8/27/1992	920827-2		Lead	250	250	67	3.7
Herrera 1996	3/12/96 - 4/7/96	TP-10	2.5	Lead	239 J	250	67	3.6
ESL 1995	1994	U 5		Lead	220	250	67	3.3
ESL 1995	1994	N 8		Lead	190	250	67	2.8
Shannon & Wilson 2001	2/22/1999	067		Lead	180	250	67	2.7
Health Risk 1999	5/3/1999	133 6A		Lead	170	250	67	2.5
ESL 1995	1994	N 4		Lead	170	250	67	2.5

Table 19
Chemicals Detected Above Screening Levels in Soil
Former Seaboard Lumber

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
ESL 1995	1994	U 7		Lead	170	250	67	2.5
Shannon & Wilson 2001	2/18/1999	045		Lead	170	250	67	2.5
ESL 1995	1994	C 11		Lead	160	250	67	2.4
Shannon & Wilson 2001	3/23/1999	074		Lead	160	250	67	2.4
ESL 1995	1994	O 3		Lead	150	250	67	2.2
ESL 1995	1994	O 5		Lead	150	250	67	2.2
ESL 1995	1994	U 4		Lead	150	250	67	2.2
ESL 1995	1994	X 6		Lead	150	250	67	2.2
Herrera 1996	3/12/96 - 4/7/96	MW-5	2.5 - 4	Lead	140	250	67	2.1
ESL 1995	1994	S 8		Lead	140	250	67	2.1
ESL 1995	1994	C 10		Lead	130	250	67	1.9
ESL 1995	1994	P 8		Lead	130	250	67	1.9
Shannon & Wilson 2001	3/23/1999	076		Lead	130	250	67	1.9
ESL 1995	1994	Q 7		Lead	120	250	67	1.8
ESL 1995	1994	R 12		Lead	120	250	67	1.8
Shannon & Wilson 2001	2/22/1999	063		Lead	120	250	67	1.8
Herrera 1997a	11/22/96 - 12/13/96	SB-18	7.5 - 9.5	Lead	116 J	250	67	1.7
ESL 1995	1994	D11		Lead	110	250	67	1.6
ESL 1995	1994	E 11		Lead	110	250	67	1.6
ESL 1995	1994	Q 5		Lead	110	250	67	1.6
ESL 1995	1994	T 7		Lead	110	250	67	1.6
ESL 1995	1994	W 6		Lead	110	250	67	1.6
Shannon & Wilson 2001	3/23/1999	079		Lead	110	250	67	1.6
ESL 1995	1994	K 9		Lead	100	250	67	1.5
Shannon & Wilson 2001	2/18/1999	043		Lead	100	250	67	1.5
Shannon & Wilson 2001	3/23/1999	080		Lead	98	250	67	1.5
ESL 1995	1994	P 9		Lead	93	250	67	1.4
Herrera 1997a	11/22/96 - 12/13/96	SB-18	2.5 - 4.5	Lead	92	250	67	1.4
Shannon & Wilson 2001	3/23/1999	082		Lead	87	250	67	1.3
Shannon & Wilson 2001	3/23/1999	084		Lead	85	250	67	1.3
ESL 1995	1994	R 9		Lead	83	250	67	1.2
Shannon & Wilson 2001	2/22/1999	064		Lead	81	250	67	1.2
ESL 1995	1994	Q 9		Lead	79	250	67	1.2
ESL 1995	1994	P 6		Lead	76	250	67	1.1
ESL 1992	8/26/1992	SB5-3		Lead	71	250	67	1.1
ESL 1995	1994	T 3		Lead	70	250	67	1.0
Shannon & Wilson 2001	2/18/1999	047		Lead	70	250	67	1.0
Health Risk 1999	5/3/1999	SBED 143 6E		Lead	69	250	67	1.0

Table 19
Chemicals Detected Above Screening Levels in Soil
Former Seaboard Lumber

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
Herrera 1996	3/12/96 - 4/7/96	SS-05	0 - 1	Mercury	219	2	0.59	371
Shannon & Wilson 2001	5/3/1999	146		Mercury	48	2	0.03	1,600
Shannon & Wilson 2001	3/25/1999	092		Mercury	41	2	0.03	1,367
Herrera 1997a	11/22/96 - 12/13/96	TP-31	2.0	Mercury	31	2	0.59	53
Shannon & Wilson 2001	3/25/1999	089		Mercury	28	2	0.03	933
Shannon & Wilson 2001	3/25/1999	094		Mercury	24	2	0.03	800
Shannon & Wilson 2001	4/15/1999	120		Mercury	16	2	0.03	533
Shannon & Wilson 2001	3/25/1999	093		Mercury	15	2	0.03	500
Shannon & Wilson 2001	5/3/1999	145		Mercury	11	2	0.03	367
Herrera 1996	3/12/96 - 4/7/96	SS-06	0 - 1	Mercury	8	2	0.59	14
Shannon & Wilson 2001	3/25/1999	088		Mercury	7.1	2	0.03	237
Shannon & Wilson 2001	5/3/1999	147		Mercury	5.5	2	0.03	183
Herrera 1997a	11/22/96 - 12/13/96	TP-38	1.5	Mercury	4.8	2	0.59	8.1
Herrera 1997a	11/22/96 - 12/13/96	TP-26	2.0 - 4.0	Mercury	3.3	2	0.03	110
Shannon & Wilson 2001	4/13/1999	115		Mercury	3.0	2	0.03	100
Shannon & Wilson 2001	4/13/1999	116		Mercury	2.9	2	0.03	97
Shannon & Wilson 2001	4/15/1999	121		Mercury	1.7	2	0.03	57
Shannon & Wilson 2001	5/3/1999	148		Mercury	1.5	2	0.03	50
Herrera 1996	3/12/96 - 4/7/96	MW-5	5 - 6.5	Mercury	1.45	2	0.03	48
Herrera 1997a	11/22/96 - 12/13/96	TP-34	0 - 1.0	Mercury	1.29	2	0.59	2.2
Herrera 1997a	11/22/96 - 12/13/96	TP-26	0.5 - 2.0	Mercury	1.09	2	0.59	1.8
Herrera 1997a	11/22/96 - 12/13/96	TP-31	3.0	Mercury	1.02	2	0.03	34
Herrera 1997a	11/22/96 - 12/13/96	TP-26	0 - 0.5	Mercury	0.88	2	0.59	1.5
Herrera 1997a	11/22/96 - 12/13/96	TP-34	1.0	Mercury	0.69	2	0.59	1.2
Herrera 1997a	11/22/96 - 12/13/96	SB-4	Surface	Mercury	0.63	2	0.59	1.1
Shannon & Wilson 2001	6/7/1999	192		Mercury	0.34	2	0.03	11
Shannon & Wilson 2001	3/24/1999	086		Mercury	0.33	2	0.03	11
Herrera 1996	3/12/96 - 4/7/96	SB-2	5 - 6.5	Mercury	0.32	2	0.03	11
Herrera 1997a	11/22/96 - 12/13/96	TP-25	2.5	Mercury	0.31	2	0.03	10
Herrera 1997a	11/22/96 - 12/13/96	SB-7	2.5 - 4.5	Mercury	0.3	2	0.03	10
Herrera 1996	3/12/96 - 4/7/96	SB-3	5 - 6.5	Mercury	0.3	2	0.03	10
Herrera 1997a	11/22/96 - 12/13/96	TP-32	3.0	Mercury	0.19	2	0.03	6.3
Herrera 1997a	11/22/96 - 12/13/96	SB-17	2.5 - 4.5	Mercury	0.17	2	0.03	5.7
Herrera 1996	3/12/96 - 4/7/96	MW-5	7.5 - 9	Mercury	0.11	2	0.03	3.7
Herrera 1996	3/12/96 - 4/7/96	MW-6	5 - 6.5	Mercury	0.1	2	0.03	3.3
Herrera 1996	3/12/96 - 4/7/96	SB-1	5 - 6.5	Mercury	0.09	2	0.03	3.0
Herrera 1997a	11/22/96 - 12/13/96	SB-17	0.5 - 2.5	Mercury	0.08	2	0.03	2.7
Herrera 1996	3/12/96 - 4/7/96	MW-5	2.5 - 4	Mercury	0.08	2	0.03	2.7

Table 19
Chemicals Detected Above Screening Levels in Soil
Former Seaboard Lumber

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
Herrera 1996	3/12/96 - 4/7/96	SB-2	10 - 11.5	Mercury	0.07	2	0.03	2.3
Herrera 1996	3/12/96 - 4/7/96	TP-10	2.5	Mercury	0.06	2	0.03	2.0
Herrera 1997a	11/22/96 - 12/13/96	SB-18	7.5 - 9.5	Mercury	0.05	2	0.03	1.7
Herrera 1997a	11/22/96 - 12/13/96	SB-9	12.5 - 14.5	PCBs, total	0.27 J	0.5	0.065	4.2
Herrera 1997a	11/22/96 - 12/13/96	SB-8	7.5 - 9.5	PCBs, total	0.17 J	0.5	0.065	2.6
Herrera 1997a	11/22/96 - 12/13/96	SB-7	2.5 - 4.5	PCBs, total	0.066 J	0.5	0.065	1.0
Herrera 1996	3/12/96 - 4/7/96	SS-05	0 - 1	Pentachlorophenol	370	2.5	0.73	507
Herrera 1997a	11/22/96 - 12/13/96	TP-32	3.0	Pentachlorophenol	110	2.5	0.037	2,973
Shannon & Wilson 2001	3/25/1999	094		Pentachlorophenol	11.0	2.5	0.037	297
ESL 1992	8/27/1992	920827-2		Pentachlorophenol	5.8 J	2.5	0.037	157
Herrera 1997a	11/22/96 - 12/13/96	TP-31	2.0	Pentachlorophenol	3.7	2.5	0.73	5.1
Herrera 1996	3/12/96 - 4/7/96	SS-06	0 - 1	Pentachlorophenol	2.2	2.5	0.73	3.0
Shannon & Wilson 2001	3/25/1999	088		Pentachlorophenol	2.0	2.5	0.037	54
Shannon & Wilson 2001	5/3/1999	146		Pentachlorophenol	1.2	2.5	0.037	32
Shannon & Wilson 2001	4/15/1999	120		Pentachlorophenol	1.1	2.5	0.037	30
Shannon & Wilson 2001	5/3/1999	147		Pentachlorophenol	0.72	2.5	0.037	19
Shannon & Wilson 2001	4/15/1999	121		Pentachlorophenol	0.60	2.5	0.037	16
Herrera 1997a	11/22/96 - 12/13/96	TP-31	3.0	Pentachlorophenol	0.27	2.5	0.037	7.3
Herrera 1996	3/12/96 - 4/7/96	SB-3	5 - 6.5	Pentachlorophenol	0.16	2.5	0.037	4.3
Herrera 1996	3/12/96 - 4/7/96	SB-3	10 - 11.5	Pentachlorophenol	0.15	2.5	0.037	4.1
Herrera 1996	3/12/96 - 4/7/96	SB-2	10 - 11.5	Pentachlorophenol	0.1	2.5	0.037	2.7
Herrera 1996	3/12/96 - 4/7/96	MW-6	5 - 6.5	Pentachlorophenol	0.1	2.5	0.037	2.7
Herrera 1996	3/12/96 - 4/7/96	MW-6	10 - 11.5	Pentachlorophenol	0.095	2.5	0.037	2.6
Herrera 1996	3/12/96 - 4/7/96	SB-2	5 - 6.5	Pentachlorophenol	0.062	2.5	0.037	1.7
Herrera 1997a	11/22/96 - 12/13/96	SB-7	2.5 - 4.5	Phenanthrene	0.96 J		0.49	2.0
ESL 1992	8/25/1992	MW2-1		Phenanthrene	0.50		0.49	1.0
Herrera 1997a	11/22/96 - 12/13/96	SB-7	2.5 - 4.5	Pyrene	780 J	2,400	1.4	557
Herrera 1996	3/12/96 - 4/7/96	MW-5	7.5 - 9	Silver	3	400	0.61	4.9
Herrera 1996	3/12/96 - 4/7/96	MW-5	2.5 - 4	Silver	2	400	0.61	3.3
Herrera 1996	3/12/96 - 4/7/96	MW-5	5 - 6.5	Silver	2	400	0.61	3.3
Herrera 1996	3/12/96 - 4/7/96	TP-2	0.5	Total petroleum hydrocarbons	29,000	2,000		15
ESL 1992	8/27/1992	920827-3		Total petroleum hydrocarbons	25,000	2,000		13
ESL 1992	8/27/1992	920827-2		Total petroleum hydrocarbons	13,000	2,000		6.5
ESL 1992	8/27/1992	920827-1		Total petroleum hydrocarbons	7,900	2,000		4.0
Herrera 1996	3/12/96 - 4/7/96	TP-3	3.5	Total petroleum hydrocarbons	7,000	2,000		3.5
ESL 1992	8/26/1992	MW4-1		Total petroleum hydrocarbons	6,000	2,000		3.0
Herrera 1996	3/12/96 - 4/7/96	TP-1	3.5	Total petroleum hydrocarbons	5,700	2,000		2.9
Herrera 1996	3/12/96 - 4/7/96	SS-02A	0 - 1	Total petroleum hydrocarbons	4,700	2,000		2.4

Table 19
Chemicals Detected Above Screening Levels in Soil
Former Seaboard Lumber

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
Herrera 1996	3/12/96 - 4/7/96	TP-2	3.5	Total petroleum hydrocarbons	4,400	2,000		2.2
Herrera 1996	3/12/96 - 4/7/96	MW-1	1.5 - 3	Total petroleum hydrocarbons	2,900	2,000		1.5
Herrera 1996	3/12/96 - 4/7/96	TP-7	0.6 - 0.8	Total petroleum hydrocarbons	2,200	2,000		1.1
ESL 1992	8/27/1992	920827-2		Zinc	71	24,000	38	1.9
ESL 1992	8/26/1992	MW4-1		Zinc	60	24,000	38	1.6
ESL 1992	8/26/1992	SB5-1		Zinc	52	24,000	38	1.4
ESL 1992	8/25/1992	MW3-1		Zinc	50	24,000	38	1.3
ESL 1992	8/26/1992	SB5-3		Zinc	40	24,000	38	1.1

ft bgs - Feet below ground surface
mg/kg - Milligrams per kilogram
MTCA - Model Toxics Control Act
CSL - Cleanup Screening Level from Washington Sediment Management Standards
D - Duplicate sample
F - Results is from the analysis of a diluted sample.
G - Possible blank contamination
J - Estimated value

a - The lower of MTCA Method A or B cleanup levels was selected, from CLARC database.
b - Based on CSL. Where two screening levels are listed for a single chemical, the higher screening levels are for soil samples collected from the vadose zone and the lower screening levels are for soil samples collected from the saturated zone (SAIC 2006).
Depth to groundwater was observed between 2.5 and 6.5 ft bgs.
Table presents detected chemicals only.
Exceedance factors are the ratio of the detected concentration to the MTCA Cleanup Level or Soil-to-Sediment Screening Level, whichever is lower.

Table 20
Chemicals Detected Above Screening Levels in Groundwater
Former Seaboard Lumber

Source	Sample Date	Sample Location	Chemical	GW Conc'n (ug/L)	MTCA Cleanup Level[a] (ug/L)	GW-to-Sediment Screening Level[b] (ug/L)	Exceedance Factor
Herrera 1997a	11/22/96 - 12/13/96	MW-2	Arsenic	6	0.0583	370	103
Herrera 1997a	11/22/96 - 12/13/96	MW-6R	Arsenic	3	0.0583	370	51
Herrera 1997a	11/22/96 - 12/13/96	MW-8	Arsenic	1	0.0583	370	17
Herrera 1996	3/12/96 - 4/7/96	MW-8 Dup of MW-4	Diesel-range hydrocarbons	11,000	500		22
Health Risk 1999	5/3/1999	SEBD T 135	Diesel-range hydrocarbons	1,000	500		2
Herrera 1996	3/12/96 - 4/7/96	MW-2	Diesel-range hydrocarbons	610	500		1.2
Herrera 1996	3/12/96 - 4/7/96	MW-8 Dup of MW-4	Heavy Oil-range hydrocarbons	1,500	500		3
Herrera 1996	3/12/96 - 4/7/96	MW-2	Heavy Oil-range hydrocarbons	960	500		1.9
Health Risk 1999	5/3/1999	SEBD T 135	Heavy Oil-range hydrocarbons	600	500		1.2
Herrera 1997a	11/22/96 - 12/13/96	MW-6R	Heavy Oil-range hydrocarbons	510	500		1.0

GW - Groundwater
ug/L - Micrograms per liter
MTCA - Model Toxics Control Act
CSL - Cleanup Screening Level from Washington Sediment Management Standards

a - The lower of MTCA Method A or B cleanup levels was selected, from CLARC database.
b - Based on CSL (SAIC 2006).
Table presents detected chemicals only.
Exceedance factors are the ratio of the detected concentration to the MTCA Cleanup Level or Groundwater-to-Sediment Screening Value, whichever is lower.

Table 21
Chemicals Detected Above Screening Levels in Soil
4101 West Marginal Way Business Park

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Exceedance Factor
Kuroiwa 2002	5/24/2001	TP-B-(2)	7.0 - 8.0	Benzene	85	0.03	2,833
Kuroiwa 2002	5/24/2001	TP-B-(1)	4.5 - 5.5	Benzene	77	0.03	2,567
Kuroiwa 2002	5/24/2001	TP-D-(2)	5.5 - 6.5	Benzene	10	0.03	333
Kuroiwa 2002	5/24/2001	TP-A-(2)	5.5 - 6.5	Benzene	8.3	0.03	277
Kuroiwa 2002	7/20/2001	WW-1	6.0 - 8.0	Benzene	3.3	0.03	110
Kuroiwa 2002	5/24/2001	TP-M-(1)	5.5 - 6.5	Benzene	3.2	0.03	107
Kuroiwa 2002	7/24/2001	BN-1	11.0 - 12.0	Benzene	1.6	0.03	53
Kuroiwa 2002	7/20/2001	WW-2	11.0 - 12.5	Benzene	1.5	0.03	50
Kuroiwa 2002	7/20/2001	WN-1	8.5 - 9.5	Benzene	0.97	0.03	32
Kuroiwa 2002	7/24/2001	B-2	13.0 - 13.5	Benzene	0.78	0.03	26
Kuroiwa 2002	7/20/2001	WW-3	11.5 - 12.5	Benzene	0.64	0.03	21
Kuroiwa 2002	7/24/2001	B-3	14.0 - 14.5	Benzene	0.31	0.03	10
Kuroiwa 2002	7/24/2001	B-3 Dupl	14.0 - 14.5	Benzene	0.31 D	0.03	10
Kuroiwa 2002	7/20/2001	BW-1	11.5 - 12.5	Benzene	0.21	0.03	7.0
Kuroiwa 2002	7/20/2001	W-E1	10.0 - 11.0	Benzene	0.19	0.03	6.3
Kuroiwa 2002	7/20/2001	B-1	11.0 - 12.0	Benzene	0.17	0.03	5.7
Kuroiwa 2002	7/20/2001	W-N2	11.0 - 12.0	Benzene	0.15	0.03	5.0
Kuroiwa 2002	7/20/2001	W-S2	10.0 - 11.0	Benzene	0.11	0.03	3.7
Kuroiwa 2002	7/24/2001	BN-2	13.0 - 13.5	Benzene	0.10	0.03	3.3
Kuroiwa 2002	7/20/2001	W-WE1	10.0 - 11.0	Benzene	0.09	0.03	3.0
Kuroiwa 2002	7/24/2001	WE-2	9.5 - 11.5	Benzene	0.08	0.03	2.7
Kuroiwa 2002	5/24/2001	TP-B-(1)	4.5 - 5.5	Ethylbenzene	102	6	17
Kuroiwa 2002	5/24/2001	TP-B-(2)	4.5 - 5.5	Ethylbenzene	85	6	14
Kuroiwa 2002	5/24/2001	TP-D-(2)	5.5 - 6.5	Ethylbenzene	58	6	9.7
Kuroiwa 2002	5/24/2001	TP-A-(2)	5.5 - 6.5	Ethylbenzene	22	6	3.7
Kuroiwa 2002	7/20/2001	WW-1	6.0 - 8.0	Ethylbenzene	17	6	2.8
Kuroiwa 2002	5/24/2001	TP-M-(1)	5.5 - 6.5	Ethylbenzene	7.1	6	1.2
Kuroiwa 2002	7/20/2001	WW-1	6.0 - 8.0	Gasoline-range hydrocarbons	530	30	18
Kuroiwa 2002	7/20/2001	WW-2	11.0 - 12.5	Gasoline-range hydrocarbons	150	30	5.0
Kuroiwa 2002	7/20/2001	WW-3	11.5 - 12.5	Gasoline-range hydrocarbons	121	30	4.0
Kuroiwa 2002	7/20/2001	WN-1	8.5 - 9.5	Gasoline-range hydrocarbons	65	30	2.2
Kuroiwa 2002	7/24/2001	BN-1	11.0 - 12.0	Gasoline-range hydrocarbons	60	30	2.0
Kuroiwa 2002	7/24/2001	BE-2	11.0 - 12.0	Gasoline-range hydrocarbons	41	30	1.4
Kuroiwa 2002	7/20/2001	W-E1	10.0 - 11.0	Gasoline-range hydrocarbons	37	30	1.2
Kuroiwa 2002	5/24/2001	TP-B-(1)	4.5 - 5.5	Toluene	280	7	40
Kuroiwa 2002	5/24/2001	TP-B-(2)	7.0 - 8.0	Toluene	270	7	39
Kuroiwa 2002	5/24/2001	TP-D-(2)	5.5 - 6.5	Toluene	46	7	6.6
Kuroiwa 2002	5/24/2001	TP-A-(2)	5.5 - 6.5	Toluene	29	7	4.1

Table 21
Chemicals Detected Above Screening Levels in Soil
4101 West Marginal Way Business Park

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Exceedance Factor
Kuroiwa 2002	5/24/2001	TP-M-(1)	5.5 - 6.5	Toluene	23	7	3.3
Kuroiwa 2002	7/20/2001	WW-1	6.0 - 8.0	Toluene	12	7	1.7
Kuroiwa 2002	5/24/2001	TP-B-(1)	4.5 - 5.5	Xylenes, total	590	9	66
Kuroiwa 2002	5/24/2001	TP-B-(2)	7.0 - 8.0	Xylenes, total	460	9	51
Kuroiwa 2002	5/24/2001	TP-A-(2)	5.5 - 6.5	Xylenes, total	220	9	24
Kuroiwa 2002	5/24/2001	TP-D-(1)	3.5 - 4.5	Xylenes, total	200	9	22
Kuroiwa 2002	5/24/2001	WW-1	6.0 - 8.0	Xylenes, total	81	9	9.0
Kuroiwa 2002	5/24/2001	TP-M-(1)	5.5 - 6.5	Xylenes, total	38	9	4.2
Kuroiwa 2002	7/24/2001	BN-1	11.0 - 12.0	Xylenes, total	16	9	1.8
Kuroiwa 2002	5/24/2001	WW-2	11.0 - 12.5	Xylenes, total	13	9	1.4
Kuroiwa 2002	5/24/2001	WW-3	11.5 - 12.5	Xylenes, total	11	9	1.2

ft bgs - Feet below ground surface
mg/kg - Milligrams per kilogram
MTCA - Model Toxics Control Act
D - Duplicate sample

a - The lower of MTCA Method A or B cleanup levels was selected, from CLARC database.
Depth to groundwater is tidally influenced at this property, and was observed between 7 and 10 ft bgs.
Table presents detected chemicals only.
Exceedance factors are the ratio of the detected concentration to the MTCA Cleanup Level.

Table 22
Chemicals Detected Above Screening Levels in Soil
Seattle Parks and Recreation Westbridge Maintenance Facility

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
GeoEngineers 2001	6/5/2000	GP-13	10	2-Methylnaphthalene	13.3	320	0.073	182
GeoEngineers 2001	6/9/2000	IB-4	11	Acenaphthene	3.35	4,800	0.06	56
GeoEngineers 2001	5/5/2000	GP-1	13	Acenaphthene	2.85	4,800	0.06	48
GeoEngineers 2001	6/8/2000	MW-9	10.5	Acenaphthene	2.58	4,800	0.06	43
GeoEngineers 2001	6/8/2000	MW-12	11	Acenaphthene	2.58	4,800	0.06	43
GeoEngineers 2001	6/5/2000	GP-16	11	Acenaphthene	1.49	4,800	0.06	25
GeoEngineers 2001	6/5/2000	GP-13	10	Acenaphthene	0.617	4,800	0.06	10
GeoEngineers 2002a	8/18/2001	EX-4	13	Acenaphthene	0.22	4,800	0.06	3.7
GeoEngineers 2002a	8/18/2001	EX-3	12	Acenaphthylene	0.22		0.069	3.2
GeoEngineers 2002a	8/18/2001	EX-4	13	Acenaphthylene	0.22		0.069	3.2
GeoEngineers 2002a	8/21/2001	EX-10	13	Acenaphthylene	0.1		0.069	1.4
GeoEngineers 2002a	8/21/2001	EX-8	12	Acenaphthylene	0.08		0.069	1.2
GeoEngineers 2001	5/5/2000	GP-1	13	Anthracene	2.71	24,000	1.2	2.3
GeoEngineers 2001	6/8/2000	MW-9	10.5	Anthracene	2.32	24,000	1.2	1.9
GeoEngineers 2001	6/5/2000	GP-16	11	Anthracene	2.06	24,000	1.2	1.7
GeoEngineers 2001	6/8/2000	MW-12	11	Anthracene	2.04	24,000	1.2	1.7
GeoEngineers 2002a	8/18/2001	EX-3	12	Anthracene	1.6	24,000	1.2	1.3
GeoEngineers 2001	6/9/2000	IB-4	11	Anthracene	1.33	24,000	1.2	1.1
GeoEngineers 2001	5/5/2000	GP-4	6	Arsenic	4.8	0.67	12,000	7.2
GeoEngineers 2001	5/5/2000	GP-3	6	Arsenic	3.98	0.67	12,000	5.9
Law 1991	9/30/1931	MW-3	7.5	Benzene	7.4	0.03		247
GeoEngineers 2000a	1/8/2000	AB-3	11	Benzene	0.296	0.03		9.9
AGRA 1996	5/3/1993	NEF-8	10 - 12	Benzene	0.19	0.03		6.3
GeoEngineers 2001	6/5/2000	GP-16	11	Benzo(a)anthracene	1.77	1.37	0.27	6.6
GeoEngineers 2001	6/8/2000	MW-9	10.5	Benzo(a)anthracene	1.31	1.37	0.27	4.9
GeoEngineers 2001	6/9/2000	IB-4	11	Benzo(a)anthracene	1.24	1.37	0.27	4.6
GeoEngineers 2001	5/5/2000	GP-1	13	Benzo(a)anthracene	1.13	1.37	0.27	4.2
GeoEngineers 2002a	8/18/2001	EX-3	12	Benzo(a)anthracene	0.9	1.37	0.27	3.3
GeoEngineers 2001	6/8/2000	MW-12	11	Benzo(a)anthracene	0.815	1.37	0.27	3.0
GeoEngineers 2002a	8/18/2001	EX-4	13	Benzo(a)anthracene	0.6	1.37	0.27	2.2
GeoEngineers 2002a	8/21/2001	EX-8	12	Benzo(a)anthracene	0.43	1.37	0.27	1.6
GeoEngineers 2002a	8/20/2001	EX-6	12	Benzo(a)anthracene	0.37	1.37	0.27	1.4
GeoEngineers 2002a	8/21/2001	EX-10	13	Benzo(a)anthracene	0.35	1.37	0.27	1.3
GeoEngineers 2001	6/8/2000	MW-11	12.5	Benzo(a)anthracene	0.306	1.37	0.27	1.1
GeoEngineers 2002a	8/18/2001	EX-3	12	Benzo(a)pyrene	1.6	0.137	0.21	12
GeoEngineers 2001	6/8/2000	MW-9	10.5	Benzo(a)pyrene	1.01	0.137	0.21	7
GeoEngineers 2001	6/9/2000	IB-4	11	Benzo(a)pyrene	0.901	0.137	0.21	6.6
GeoEngineers 2001	6/5/2000	GP-16	11	Benzo(a)pyrene	0.826	0.137	0.21	6.0

Table 22
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Seattle Parks and Recreation Westbridge Maintenance Facility

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
GeoEngineers 2001	5/5/2000	GP-1	13	Benzo(a)pyrene	0.814	0.137	0.21	5.9
GeoEngineers 2001	6/8/2000	MW-12	11	Benzo(a)pyrene	0.634	0.137	0.21	4.6
GeoEngineers 2002a	8/18/2001	EX-4	13	Benzo(a)pyrene	0.53	0.137	0.21	3.9
GeoEngineers 2002a	8/21/2001	EX-8	12	Benzo(a)pyrene	0.39	0.137	0.21	2.8
GeoEngineers 2002a	8/21/2001	EX-10	13	Benzo(a)pyrene	0.32	0.137	0.21	2.3
GeoEngineers 2002a	8/20/2001	EX-6	12	Benzo(a)pyrene	0.3	0.137	0.21	2.2
GeoEngineers 2001	6/8/2000	MW-11	12.5	Benzo(a)pyrene	0.283	0.137	0.21	2.1
GeoEngineers 2002a	8/22/2001	EX-17	13	Benzo(a)pyrene	0.24	0.137	0.21	1.8
GeoEngineers 2001	6/9/2000	IB-4	11	Benzo(b)fluoranthene	0.859	1.37	0.45	1.9
GeoEngineers 2002a	8/18/2001	EX-4	13	Benzo(b)fluoranthene	0.53	1.37	0.45	1.2
GeoEngineers 2002a	8/18/2001	EX-3	12	Benzo(g,h,i)perylene	3.4		0.078	44
GeoEngineers 2001	6/8/2000	MW-9	10.5	Benzo(g,h,i)perylene	0.613		0.078	7.9
GeoEngineers 2001	5/5/2000	GP-1	13	Benzo(g,h,i)perylene	0.542		0.078	6.9
GeoEngineers 2001	6/9/2000	IB-4	11	Benzo(g,h,i)perylene	0.515		0.078	6.6
GeoEngineers 2002a	8/18/2001	EX-4	13	Benzo(g,h,i)perylene	0.33		0.078	4.2
GeoEngineers 2002a	8/21/2001	EX-8	12	Benzo(g,h,i)perylene	0.22		0.078	2.8
GeoEngineers 2002a	8/20/2001	EX-6	12	Benzo(g,h,i)perylene	0.17		0.078	2.2
GeoEngineers 2001	6/8/2000	MW-11	12.5	Benzo(g,h,i)perylene	0.151		0.078	1.9
GeoEngineers 2002a	8/21/2001	EX-10	13	Benzo(g,h,i)perylene	0.15		0.078	1.9
GeoEngineers 2002a	8/22/2001	EX-17	13	Benzo(g,h,i)perylene	0.14		0.078	1.8
GeoEngineers 2001	5/5/2000	GP-3	6	Cadmium	2.2	2	34	1.1
GeoEngineers 2001	6/5/2000	GP-16	11	Chrysene	3.47	137	0.46	7.5
GeoEngineers 2001	5/5/2000	GP-1	13	Chrysene	2.62	137	0.46	5.7
GeoEngineers 2001	6/9/2000	IB-4	11	Chrysene	2.4	137	0.46	5.2
GeoEngineers 2001	6/8/2000	MW-9	10.5	Chrysene	2.32	137	0.46	5.0
GeoEngineers 2001	6/8/2000	MW-12	11	Chrysene	2.04	137	0.46	4.4
GeoEngineers 2002a	8/18/2001	EX-3	12	Chrysene	1.8	137	0.46	3.9
GeoEngineers 2001	6/5/2000	GP-13	10	Chrysene	0.799	137	0.46	1.7
GeoEngineers 2001	6/5/2000	GP-16	11	cPAHs, total	6.066	0.137		44
GeoEngineers 2001	6/9/2000	IB-4	11	cPAHs, total	5.4	0.137		39
GeoEngineers 2001	6/8/2000	MW-9	10.5	cPAHs, total	4.64	0.137		34
GeoEngineers 2001	5/5/2000	GP-1	12	cPAHs, total	4.564	0.137		33
GeoEngineers 2001	6/8/2000	MW-11	12.5	cPAHs, total	3.989	0.137		29
GeoEngineers 2001	6/8/2000	MW-12	11	cPAHs, total	3.489	0.137		25
GeoEngineers 2002a	8/18/2001	EX-4	13	cPAHs, total	2.8	0.137		20
GeoEngineers 2002a	8/21/2001	EX-8	12	cPAHs, total	1.99	0.137		15
GeoEngineers 2002a	8/21/2001	EX-10	13	cPAHs, total	1.56	0.137		11
GeoEngineers 2002a	8/20/2001	EX-6	12	cPAHs, total	1.21	0.137		8.8

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Seattle Parks and Recreation Westbridge Maintenance Facility

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
GeoEngineers 2002a	8/22/2001	EX-17	13	cPAHs, total	1.19	0.137		8.7
GeoEngineers 2001	6/5/2000	GP-13	10	cPAHs, total	0.779	0.137		5.7
GeoEngineers 2002a	8/20/2001	EX-7	12	cPAHs, total	0.53	0.137		3.9
GeoEngineers 2002a	8/21/2001	EX-11	13	cPAHs, total	0.37	0.137		2.7
GeoEngineers 2002a	8/22/2001	EX-21	11	cPAHs, total	0.25	0.137		1.8
GeoEngineers 2002a	8/18/2001	EX-3	12	cPAHs, total	0.22	0.137		1.6
GeoEngineers 2002a	8/22/2001	EX-20	11	cPAHs, total	0.16	0.137		1.2
GeoEngineers 2001	6/5/2000	GP-10	12	cPAHs, total	0.1597	0.137		1.2
GeoEngineers 2002a	8/22/2001	EX-19	12	cPAHs, total	0.15	0.137		1.1
GeoEngineers 2002a	8/18/2001	EX-3	12	Dibenzo(a,h)anthracene	0.81	0.137	0.033	25
GeoEngineers 2002a	8/18/2001	EX-4	13	Dibenzo(a,h)anthracene	0.08	0.137	0.033	2.4
GeoEngineers 2002a	8/21/2001	EX-8	12	Dibenzo(a,h)anthracene	0.05	0.137	0.033	1.5
GeoEngineers 2002a	8/20/2001	EX-6	12	Dibenzo(a,h)anthracene	0.04	0.137	0.033	1.2
GeoEngineers 2002a	8/21/2001	EX-10	13	Dibenzo(a,h)anthracene	0.04	0.137	0.033	1.2
GeoEngineers 2001	6/6/2000	GP-13	10	Diesel-range hydrocarbons	28,900	2,000		14
GeoEngineers 2001	6/6/2000	GP-16	11	Diesel-range hydrocarbons	26,100	2,000		13
GeoEngineers 2001	6/9/2000	IB-4	11	Diesel-range hydrocarbons	18,000	2,000		9.0
GeoEngineers 2001	6/6/2000	GP-14	10	Diesel-range hydrocarbons	15,700	2,000		7.9
GeoEngineers 2001	5/5/2000	GP-8	11	Diesel-range hydrocarbons	12,000	2,000		6.0
GeoEngineers 2001	5/5/2000	GP-6	12	Diesel-range hydrocarbons	11,900	2,000		6.0
GeoEngineers 2001	6/8/2000	MW-9	10.5	Diesel-range hydrocarbons	11,100	2,000		5.6
GeoEngineers 2001	6/8/2000	MW-12	12.5	Diesel-range hydrocarbons	10,300	2,000		5.2
GeoEngineers 2001	5/5/2000	GP-1	13	Diesel-range hydrocarbons	8,960	2,000		4.5
GeoEngineers 2001	6/8/2000	MW-10	13	Diesel-range hydrocarbons	8,500	2,000		4.3
GeoEngineers 2001	5/5/2000	GP-2	11	Diesel-range hydrocarbons	6,300	2,000		3.2
GeoEngineers 2001	6/8/2000	MW-13	11	Diesel-range hydrocarbons	4,910	2,000		2.5
GeoEngineers 2001	6/9/2000	OB-1	11	Diesel-range hydrocarbons	3,750	2,000		1.9
GeoEngineers 2001	5/5/2000	GP-5	12	Diesel-range hydrocarbons	3,330	2,000		1.7
GeoEngineers 2001	6/6/2000	GP-12	10	Diesel-range hydrocarbons	2,810	2,000		1.4
GeoEngineers 2000a	2/2/2000	AB-6	7.5	Ethylbenzene	131	6		22
AGRA 1996	5/3/1993	NEF-15	10 - 12	Ethylbenzene	80	6		13
GeoEngineers 2000a	2/2/2000	AB-3	7.5	Ethylbenzene	71.4	6		12
GeoEngineers 2000a	2/2/2000	AB-4	7.5	Ethylbenzene	9.51	6		1.6
GeoEngineers 2000a	1/8/2000	AB-2	7.0	Ethylbenzene	7.99	6		1.3
GeoEngineers 2001	5/5/2000	GP-1	13	Fluoranthene	1.67	3,200	1.2	1.4
GeoEngineers 2001	5/5/2000	GP-1	13	Fluorene	7.37	3,200	0.081	91
GeoEngineers 2001	6/8/2000	MW-9	10.5	Fluorene	5.86	3,200	0.081	72
GeoEngineers 2001	6/9/2000	IB-4	11	Fluorene	5.71	3,200	0.081	70

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GeoEngineers 2001	6/8/2000	MW-12	11	Fluorene	5.48	3,200	0.081	68
GeoEngineers 2001	6/5/2000	GP-16	11	Fluorene	3.8	3,200	0.081	47
GeoEngineers 2001	6/5/2000	GP-13	10	Fluorene	1.2	3,200	0.081	15
GeoEngineers 2002a	8/18/2001	EX-3	12	Fluorene	0.15	3,200	0.081	1.9
GeoEngineers 2002a	8/18/2001	EX-4	13	Fluorene	0.14	3,200	0.081	1.7
AGRA 1996	5/3/1993	NEF-15	10 - 12	Gasoline-range hydrocarbons	19,000	30		633
GeoEngineers 2000a	2/2/2000	AB-6	7.5	Gasoline-range hydrocarbons	9,970	30		332
GeoEngineers 2000a	2/2/2000	AB-3	7.5	Gasoline-range hydrocarbons	3,430	30		114
Law 1991	9/30/1931	MW-3	7.5	Gasoline-range hydrocarbons	2,800	30		93
GeoEngineers 2000a	2/2/2000	AB-4	7.5	Gasoline-range hydrocarbons	2,360	30		79
AGRA 1996	5/3/1993	NEW-16	8-10	Gasoline-range hydrocarbons	2,100	30		70
Northwest Envirocon 1991	9/6/1991	001	7.5	Gasoline-range hydrocarbons	830	30		28
Northwest Envirocon 1991	9/6/1991	003	6	Gasoline-range hydrocarbons	660	30		22
GeoEngineers 2000a	1/8/2000	AB-2	7.0	Gasoline-range hydrocarbons	615	30		21
AGRA 1996	5/3/1993	NEF-9	10 - 12	Gasoline-range hydrocarbons	600	30		20
GeoEngineers 2000a	2/2/2000	AB-5	7.5	Gasoline-range hydrocarbons	437	30		15
AGRA 1996	5/3/1993	NEF-8	10 - 12	Gasoline-range hydrocarbons	300	30		10
GeoEngineers 2000a	2/2/2000	AB-3	11	Gasoline-range hydrocarbons	116	30		3.9
AGRA 1996	5/3/1993	EW-4	10 - 12	Gasoline-range hydrocarbons	55	30		1.8
GeoEngineers 2001	6/6/2000	GP-16	11	Heavy Oil-range hydrocarbons	20,600	2,000		10
GeoEngineers 2001	6/6/2000	GP-13	10	Heavy Oil-range hydrocarbons	19,100	2,000		9.6
GeoEngineers 2001	6/6/2000	GP-14	10	Heavy Oil-range hydrocarbons	12,100	2,000		6.1
GeoEngineers 2001	6/9/2000	IB-4	11	Heavy Oil-range hydrocarbons	10,600	2,000		5.3
GeoEngineers 2001	5/5/2000	GP-6	12	Heavy Oil-range hydrocarbons	9,960	2,000		5.0
GeoEngineers 2001	6/8/2000	MW-12	12.5	Heavy Oil-range hydrocarbons	8,780	2,000		4.4
GeoEngineers 2001	6/8/2000	MW-9	10.5	Heavy Oil-range hydrocarbons	8,660	2,000		4.3
GeoEngineers 2001	5/5/2000	GP-8	11	Heavy Oil-range hydrocarbons	7,540	2,000		3.8
GeoEngineers 2001	5/5/2000	GP-1	13	Heavy Oil-range hydrocarbons	6,340	2,000		3.2
GeoEngineers 2001	6/8/2000	MW-10	13	Heavy Oil-range hydrocarbons	5,860	2,000		2.9
GeoEngineers 2001	6/9/2000	OB-1	11	Heavy Oil-range hydrocarbons	3,750	2,000		1.9
GeoEngineers 2001	5/5/2000	GP-2	11	Heavy Oil-range hydrocarbons	3,640	2,000		1.8
GeoEngineers 2001	6/8/2000	MW-13	11	Heavy Oil-range hydrocarbons	3,530	2,000		1.8
GeoEngineers 2001	5/5/2000	GP-5	12	Heavy Oil-range hydrocarbons	2,420	2,000		1.2
GeoEngineers 2001	6/6/2000	GP-12	10	Heavy Oil-range hydrocarbons	2,100	2,000		1.1
GeoEngineers 2002a	8/18/2001	EX-3	12	Indeno(1,2,3-cd)pyrene	1.5	1.37	0.088	17
GeoEngineers 2002a	8/18/2001	EX-4	13	Indeno(1,2,3-cd)pyrene	0.29	1.37	0.088	3.3
GeoEngineers 2002a	8/21/2001	EX-8	12	Indeno(1,2,3-cd)pyrene	0.22	1.37	0.088	2.5
GeoEngineers 2001	6/8/2000	MW-11	12.5	Indeno(1,2,3-cd)pyrene	0.162	1.37	0.088	1.8

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GeoEngineers 2002a	8/20/2001	EX-6	12	Indeno(1,2,3-cd)pyrene	0.16	1.37	0.088	1.8
GeoEngineers 2002a	8/21/2001	EX-10	13	Indeno(1,2,3-cd)pyrene	0.14	1.37	0.088	1.6
GeoEngineers 2002a	8/22/2001	EX-17	13	Indeno(1,2,3-cd)pyrene	0.12	1.37	0.088	1.4
GeoEngineers 2000a	2/2/2000	AB-3	7.5	Naphthalene	27.1	5	3.8	7.1
GeoEngineers 2001	6/8/2000	MW-12	11	Naphthalene	1.04	5	0.2	5.2
GeoEngineers 2001	5/5/2000	GP-1	13	Naphthalene	0.859	5	0.2	4.3
GeoEngineers 2001	6/8/2000	MW-9	10.5	Naphthalene	0.613	5	0.2	3.1
GeoEngineers 2001	6/5/2000	GP-16	11	Naphthalene	0.537	5	0.2	2.7
GeoEngineers 2001	6/8/2000	MW-12	11	Phenanthrene	12		0.49	24
GeoEngineers 2001	6/8/2000	MW-9	10.5	Phenanthrene	10.2		0.49	21
GeoEngineers 2001	5/5/2000	GP-1	13	Phenanthrene	5.79		0.49	12
GeoEngineers 2001	6/5/2000	GP-13	10	Phenanthrene	4.55		0.49	9.3
GeoEngineers 2001	6/9/2000	IB-4	11	Phenanthrene	1.12		0.49	2.3
GeoEngineers 2002a	8/18/2001	EX-4	13	Phenanthrene	1.1		0.49	2.2
GeoEngineers 2001	6/5/2000	GP-16	11	Pyrene	6.98	2,400	1.4	5.0
GeoEngineers 2001	6/8/2000	MW-9	10.5	Pyrene	6.3	2,400	1.4	4.5
GeoEngineers 2001	6/9/2000	IB-4	11	Pyrene	5.19	2,400	1.4	3.7
GeoEngineers 2001	6/8/2000	MW-12	11	Pyrene	4.94	2,400	1.4	3.5
GeoEngineers 2001	5/5/2000	GP-1	13	Pyrene	4.93	2,400	1.4	3.5
GeoEngineers 2002a	8/18/2001	EX-3	12	Pyrene	3.4	2,400	1.4	2.4
GeoEngineers 2001	6/5/2000	GP-13	10	Pyrene	1.69	2,400	1.4	1.2
GeoEngineers 2000a	2/2/2000	AB-6	7.5	Toluene	142	7		20
GeoEngineers 2000a	2/2/2000	AB-3	7.5	Toluene	58.8	7		8.4
AGRA 1996	5/3/1993	NEF-15	10 - 12	Toluene	16	7		2.3
Law 1991	9/30/1931	MW-3	7.5	Toluene	15	7		2.1
Law 1991	9/30/1931	MW-3	7.5	Xylenes, m- & p-	20	9		2.2
Law 1991	9/30/1931	MW-3	7.5	Xylenes, o-	15	9		1.7
GeoEngineers 2000a	2/2/2000	AB-6	7.5	Xylenes, total	1,050	9		117
AGRA 1996	5/3/1993	NEF-15	10 - 12	Xylenes, total	770	9		86
GeoEngineers 2000a	2/2/2000	AB-3	7.5	Xylenes, total	570	9		63
GeoEngineers 2000a	2/2/2000	AB-4	7.5	Xylenes, total	82.1	9		9.1
GeoEngineers 2000a	1/8/2000	AB-2	7.0	Xylenes, total	55.3	9		6.1
GeoEngineers 2000a	2/2/2000	AB-5	7.5	Xylenes, total	15.7	9		1.7

Table 22
Chemicals Detected Above Screening Levels in Soil
Seattle Parks and Recreation Westbridge Maintenance Facility

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor

ft bgs - Feet below ground surface
mg/kg - Milligrams per kilogram
MTCA - Model Toxics Control Act
CSL - Cleanup Screening Level from Washington Sediment Management Standards

a - The lower of MTCA Method A or B cleanup levels was selected, from CLARC database.
b - Based on CSL. Where two screening levels are listed for a single chemical, the higher screening levels are for soil samples collected from the vadose zone and the lower screening levels are for soil samples collected from the saturated zone (SAIC 2006).
CSL screening levels are based on a minimum groundwater elevation of 8.36 ft bgs which was encountered November 2004.
Table presents detected chemicals only.
Exceedance factors are the ratio of the detected concentration to the MTCA Cleanup Level or Soil-to-Sediment Screening Level, whichever is lower.

Table 23
Chemicals Detected Above Screening Levels in Groundwater
Seattle Parks and Recreation Westbridge Maintenance Facility

Source	Sample Date	Sample Location	Chemical	GW Conc'n (ug/L)	MTCA Cleanup Level[a] (ug/L)	GW-to-Sediment Screening Level[b] (ug/L)	Exceedance Factor
Law 1991	10/11/1991	MW-3	Benzene	3,000	0.8		3,750
AGRA 1996	5/19/1993	MW-5	Benzene	280	0.8		350
AGRA 1996	2/25/1993	MW-3	Benzene	120	0.8		150
Law 1991	10/11/1991	MW-2	Benzene	6	0.8		7.5
GeoEngineers 2004a	8/31/2000	MW-10	Benzo(a)anthracene	0.2	0.12	0.63	1.7
GeoEngineers 2001	6/20/2000	MW-12	Benzo(a)anthracene	0.153	0.12	0.63	1.3
GeoEngineers 2001	6/20/2000	MW-10	Benzo(a)anthracene	0.152	0.12	0.63	1.3
GeoEngineers 2005	11/29/2004	MW-10	Benzo(a)pyrene	0.0238	0.012	0.27	2.0
GeoEngineers 2004b	5/26/2004	MW-10	Benzo(a)pyrene	0.021	0.012	0.27	1.8
GeoEngineers 2004a	7/30/2003	MW-10	Benzo(a)pyrene	0.0167	0.012	0.27	1.4
GeoEngineers 2004a	8/31/2000	MW-10	cPAHs, total	1.32	0.012	0.27	110
GeoEngineers 2001	6/20/2000	MW-12	cPAHs, total	0.422	0.012	0.27	35
GeoEngineers 2001	6/20/2000	MW-10	cPAHs, total	0.38	0.012	0.27	32
GeoEngineers 2004a	7/30/2003	MW-10	cPAHs, total	0.17	0.012	0.27	14
GeoEngineers 2005	11/29/2004	MW-10	cPAHs, total	0.1431	0.012	0.27	12
GeoEngineers 2004a	11/14/2003	MW-10	cPAHs, total	0.1251	0.012	0.27	10
GeoEngineers 2004b	5/26/2004	MW-10	cPAHs, total	0.117	0.012	0.27	9.8
GeoEngineers 2004a	2/20/2004	MW-10	cPAHs, total	0.0177	0.012	0.27	1.5
GeoEngineers 2005	11/29/2004	MW-10	Dibenzo(a,h)anthracene	0.02	0.012	0.013	1.7
GeoEngineers 2001	5/5/2000	GP-1	Diesel-range hydrocarbons	10,700	500		21
GeoEngineers 2001	5/5/2000	GP-2	Diesel-range hydrocarbons	10,100	500		20
GeoEngineers 2001	6/20/2000	MW-9	Diesel-range hydrocarbons	9,080	500		18
GeoEngineers 2001	6/20/2000	MW-13	Diesel-range hydrocarbons	6,060	500		12
GeoEngineers 2001	6/20/2000	MW-12	Diesel-range hydrocarbons	4,300	500		8.6
GeoEngineers 2004a	4/3/2003	MW-9	Diesel-range hydrocarbons	4,200	500		8.4
GeoEngineers 2004a	7/29/2003	MW-9	Diesel-range hydrocarbons	3,660	500		7.3
GeoEngineers 2001	6/20/2000	MW-10	Diesel-range hydrocarbons	3,370	500		6.7
GeoEngineers 2005	8/24/2004	MW-9	Diesel-range hydrocarbons	2,200	500		4.4
GeoEngineers 2001	6/20/2000	MW-11	Diesel-range hydrocarbons	1,290	500		2.6
GeoEngineers 2004a	8/31/2000	MW-10	Diesel-range hydrocarbons	1,030	500		2.1
GeoEngineers 2005	11/29/2004	MW-9	Diesel-range hydrocarbons	993	500		2.0
AGRA 1996	2/25/1993	MW-3	Ethylbenzene	1,800	700		2.6
GeoEngineers 2000a	1/10/2000	MW-9	Ethylbenzene	1,160	700		1.7
AGRA 1996	2/25/1993	MW-3	Gasoline-range hydrocarbons	69,000	800		86
Law 1991	10/11/1991	MW-3	Gasoline-range hydrocarbons	64,000	800		80
AGRA 1996	5/19/1993	MW-5	Gasoline-range hydrocarbons	3,800	800		4.8
GeoEngineers 2001	5/5/2000	GP-2	Heavy oil-range hydrocarbons	8,970	500		18
GeoEngineers 2001	5/5/2000	GP-2	Heavy oil-range hydrocarbons	7,630	500		15
GeoEngineers 2001	6/20/2000	MW-13	Heavy oil-range hydrocarbons	2,880	500		5.8

Table 23
Chemicals Detected Above Screening Levels in Groundwater
Seattle Parks and Recreation Westbridge Maintenance Facility

Source	Sample Date	Sample Location	Chemical	GW Conc'n (ug/L)	MTCA Cleanup Level[a] (ug/L)	GW-to-Sediment Screening Level[b] (ug/L)	Exceedance Factor
GeoEngineers 2001	6/20/2000	MW-12	Heavy oil-range hydrocarbons	2,750	500		5.5
GeoEngineers 2001	6/20/2000	MW-10	Heavy oil-range hydrocarbons	1,880	500		3.8
GeoEngineers 2004a	8/31/2000	MW-10	Heavy oil-range hydrocarbons	764	500		1.5
GeoEngineers 2004a	4/3/2003	MW-9	Heavy oil-range hydrocarbons	617	500		1.2
Law 1991	10/11/1991	MW-3	Toluene	18,000	640		28
AGRA 1996	2/25/1993	MW-3	Toluene	1,100	640		1.7
Law 1991	10/11/1991	MW-3	Xylenes, total	31,000	1,000		31
AGRA 1996	2/25/1993	MW-3	Xylenes, total	15,000	1,000		15
GeoEngineers 2000a	1/10/2000	MW-9	Xylenes, total	5,200	1,000		5.2

GW - Groundwater
ug/L - Micrograms per liter
MTCA - Model Toxics Control Act
CSL - Cleanup Screening Level from Washington Sediment Management Standards

a - The lower of MTCA Method A or B cleanup levels was selected, from CLARC database.
b - Based on CSL (SAIC 2006).
The MTCA Cleanup Level and Groundwater-to-Sediment Screening Value for cPAHs, total are based on Benzo(a)pyrene.
Table presents detected chemicals only.
Exceedance factors are the ratio of the detected concentration to the MTCA Cleanup Level or Groundwater-to-Sediment Screening Value, whichever is lower.

Table 24
Chemicals Detected Above Screening Levels in Groundwater
Former Central Painting

Source	Sample Date	Sample Location	Chemical	GW Conc'n (ug/L)	MTCA Cleanup Level[a] (ug/L)	GW-to-Sediment Screening Level[b] (ug/L)	Exceedance Factor
Shannon & Wilson 1989d	11/13/1989	MW-1	Arsenic	6	0.0583	370	103
Shannon & Wilson 1989d	8/1/1989	MW-1	Silver	80	80	1.5	53
Shannon & Wilson 1989d	8/1/1989	MW-2	Silver	80	80	1.5	53
Shannon & Wilson 1989b	1/30/1989	MW-1	Tetrachloroethylene	13		5	2.6
Shannon & Wilson 1989b	1/30/1989	MW-1	Tetrachloroethylene	12 D		5	2.4
Shannon & Wilson 1989d	11/13/1989	MW-1	Tetrachloroethylene	6 D		5	1.2
Shannon & Wilson 1989b	1/30/1989	MW-2	Trichloroethylene	63		5	13
Shannon & Wilson 1989d	11/13/1989	MW-2	Trichloroethylene	60		5	12
Shannon & Wilson 1989d	8/1/1989	MW-2	Trichloroethylene	37		5	7.4
Shannon & Wilson 1989b	4/24/1989	MW-2	Trichloroethylene	23		5	4.6
Shannon & Wilson 1989b	4/24/1989	MW-2	Trichloroethylene	23 D		5	4.6
Shannon & Wilson 1989b	1/30/1989	MW-1	Trichloroethylene	6		5	1.2
Shannon & Wilson 1989b	1/30/1989	MW-1	Trichloroethylene	6 D		5	1.2

GW - Groundwater
ug/L - Micrograms per liter
MTCA - Model Toxics Control Act
CSL - Cleanup Screening Level from Washington Sediment Management Standards
D - Duplicate sample

a - The lower of MTCA Method A or B cleanup levels was selected, from CLARC database.
b - Based on CSL (SAIC 2006).
Table presents detected chemicals only.
Exceedance factors are the ratio of the detected concentration to the MTCA Cleanup Level or Groundwater-to-Sediment Screening Value, whichever is lower.

Table 25
Chemicals Detected Above Screening Levels in Soil
South Seattle Community College

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Exceedance Factor	UST #
Converse 1994	4/14/1994	1434-FL-8	8	Benzene	0.22	0.03	7.3	143-3F & 4F UST
Converse 1994	4/23/1994	1303-NW2-9	7	Benzene	0.14	0.03	4.7	130-3F, 4F, & 9D UST
Converse 1994	4/23/1994	1304-NW-7	17	Benzene	0.12	0.03	4.0	130-3F, 4F, & 9D UST
Converse 1994	12/30/1993	130-FL-9	9	Benzene	0.1	0.03	3.3	130-1F, 2F & 8D
Converse 1994	4/21/1994	1303-FL-12.5	12.5	Benzene	0.095	0.03	3.2	130-3F, 4F, & 9D UST
Converse 1994	4/14/1994	143-WW-5	5	Benzene	0.095	0.03	3.2	143-3F & 4F UST
Converse 1994	4/20/1994	1303-WW-7	7	Benzene	0.055	0.03	1.8	130-3F, 4F, & 9D UST
Converse 1994	3/1/1994	HST-127EW-8	8.0	Diesel-range hydrocarbons	5,500	2,000	2.8	Hoist East
Converse 1994	3/1/1994	HST-127WE-8	8	Diesel-range hydrocarbons	5,100	2,000	2.6	Hoist West
Converse 1994	3/1/1994	HST-127SE-8	8	Diesel-range hydrocarbons	3,800	2,000	1.9	Hoist South
Converse 1994	1/7/1994	130-EW-5	5	Gasoline-range hydrocarbons	4,500	30	150	130-1F, 2F & 8D
Converse 1994	2/24/1994	OWS-FL-11	11	Gasoline-range hydrocarbons	83	30	2.8	Western Oil /Water Seperator Excavation
Converse 1994	12/30/1993	130-FL-9	9	Gasoline-range hydrocarbons	63	30	2.1	130-1F, 2F & 8D
Converse 1994	4/14/1994	1434-FL-8	8	Gasoline-range hydrocarbons	47	30	1.6	143-3F & 4F UST
Converse 1994	4/20/1994	1303-SW-7	7	Gasoline-range hydrocarbons	31	30	1.0	130-3F, 4F, & 9D UST
Converse 1994	3/1/1994	HST-127EW-8	8	Heavy oil-range hydrocarbons	10,000	2,000	5.0	Hoist East
Converse 1994	3/1/1994	HST-127WE-8	8	Heavy oil-range hydrocarbons	7,900	2,000	4.0	Hoist West
Converse 1994	3/1/1994	HST-127SE-8	8	Heavy oil-range hydrocarbons	6,300	2,000	3.2	Hoist South
Converse 1994	3/1/1994	HST-127EE-8	8	Heavy oil-range hydrocarbons	2,800	2,000	1.4	Hoist East
Converse 1994	1/7/1994	130-EW-5	5	Xylenes, total	210	9	23	130-1F, 2F & 8D

ft bgs - Feet below ground surface
mg/kg - Milligrams per kilogram
MTCA - Model Toxics Control Act

a - The lower of MTCA Method A or B cleanup levels was selected, from CLARC database.
Depth to groundwater is approximately 2.5 to 6.5 ft bgs. CSL screening levels for 130-1F, 2F, & 8D excavation samples are based on the minimum observed groundwater elevation of 5.5 ft bgs.
Table presents detected chemicals only.
Exceedance factors are the ratio of the detected concentration to the MTCA Cleanup Level.

Table 26
Chemicals Detected Above Screening Levels in Seep and Creek Water
Puget Park

Source	Sample Location	Date Sampled	Chemical	Seep and Creek Water Conc'n (ug/L)	Marine Chronic WQS[a] (ug/L)	Marine Acute WQS[b] (ug/L)	Chronic WQS Exceedance Factor	GW-to-Sediment Screening Level[c] (ug/L)	Exceedance Factor
Geo Group 2003a	A1-Out	6/25/1999	Lead	200,000 T	8.1	210	24,691	13	15,385
Hart Crowser 1996	PP-Seep	8/29/1996	Lead	1,300 T	8.1	210	160	13	100
Hart Crowser 1996	PP-Seep-2	10/4/1996	Lead	1,300 T	8.1	210	160	13	100
Hart Crowser 1996	PP-Seep-2	10/4/1996	Lead	1,100 Ds	8.1	210	136	13	85
Hart Crowser 1996	PP-Seep	8/29/1996	Lead	1,000 Ds	8.1	210	123	13	77
Geo Group 2003a	A3-SE	6/30/1998	Lead	540 T	8.1	210	67	13	42
Geo Group 2003a	A3-Out	6/25/1999	Lead	340 T	8.1	210	42	13	26
Geo Group 2003a	A3-SE	6/25/1999	Lead	270 T	8.1	210	33	13	21
Geo Group 2003a	A3-In	6/30/1998	Lead	93 T	8.1	210	11	13	7.2
Geo Group 2003a	A3-SE	6/25/1999	Lead	58 Ds	8.1	210	7.2	13	4.5
Geo Group 2003a	A3-In	6/25/1999	Lead	56 T	8.1	210	6.9	13	4.3
Geo Group 2003a	A3-Out	6/30/1998	Lead	26 T	8.1	210	3.2	13	2.0
Geo Group 2003a	A3-Out	6/30/1998	Lead	12 Ds	8.1	210	1.5	13	<1
Seattle Parks 1993	1A	5/14/1993	Mercury	0.9	0.025	1.8	36	0.0074	122
Seattle Parks 1993	2A	5/14/1993	Mercury	0.3	0.025	1.8	12	0.0074	41

ug/L - Microgram per liter
WQS - Water Quality Standards
GW - Groundwater
CSL - Cleanup Screening Level from Washington Sediment Management Standards
Ds - Dissolved metal
T - Total metal

a - The lower of the ARARS for Surface Water Aquatic Life (Marine/Chronic) were selected from CLARC database
b - The lower of the ARARS for Surface Water Aquatic Life (Marine/Acute) were selected from CLARC database
c - Based on CSL (SAIC 2006).
Table presents detected chemicals only.
Exceedance factors are the ratio of the detected concentrations to the minimum screening level availbe in the WA State CLARC database, exceedance factors are shown only if they are greater than 1.

Table 27
Chemicals Detected Above Screening Levels in Cement Kiln Dust Soil Samples
McFarland Property

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	CKD Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
RZA AGRA 1994a	6/21/1994	8+63-11W	0.5	Arsenic	440	0.67	590	657
RZA AGRA 1994a	6/21/1994	9+49-10W	0.5	Arsenic	390	0.67	590	582
RZA AGRA 1994a	6/21/1994	10+19	1.5	Arsenic	370	0.67	590	552
RZA AGRA 1994a	6/21/1994	9+35-15E	0.4	Arsenic	360	0.67	590	537
RZA AGRA 1994a	6/21/1994	9+25	1.5	Arsenic	330	0.67	590	493
RZA AGRA 1994a	6/21/1994	9+25	4.0	Arsenic	330	0.67	590	493
RZA AGRA 1994a	6/21/1994	9+08-26W	0.3	Arsenic	320	0.67	590	478
RZA AGRA 1994a	6/21/1994	8+50	2.5	Arsenic	230	0.67	590	343
RZA AGRA 1994a	6/21/1994	Mayer - 2	2.5	Arsenic	150	0.67	590	224
RZA AGRA 1994a	6/21/1994	7+75	4.0	Arsenic	150	0.67	590	224
RZA AGRA 1994a	6/21/1994	Mayer - 3	3.0	Arsenic	140	0.67	590	209
RZA AGRA 1994a	6/21/1994	7+50	0.5	Arsenic	130	0.67	590	194
RZA AGRA 1994a	6/21/1994	8+10-13W	0.4	Arsenic	120	0.67	590	179
RZA AGRA 1994a	6/21/1994	Mayer - 4	1.5	Arsenic	14	0.67	590	21
RZA AGRA 1994a	6/21/1994	7+00	4.0	Arsenic	12	0.67	590	18
RZA AGRA 1994a	6/21/1994	Mayer - 5	1.5	Arsenic	9.3	0.67	590	14
RZA AGRA 1994a	6/21/1994	8+63-11W	0.5	Cadmium	13	2	1.7	7.6
RZA AGRA 1994a	6/21/1994	9+49-10W	0.5	Cadmium	12	2	1.7	7.1
RZA AGRA 1994a	6/21/1994	9+25	1.5	Cadmium	10	2	1.7	5.9
RZA AGRA 1994a	6/21/1994	9+35-15E	0.4	Cadmium	9.6	2	1.7	5.6
RZA AGRA 1994a	6/21/1994	10+19	1.5	Cadmium	8.8	2	1.7	5.2
RZA AGRA 1994a	6/21/1994	9+25	4.0	Cadmium	8.6	2	1.7	5.1
RZA AGRA 1994a	6/21/1994	9+08-26W	0.3	Cadmium	8.4	2	1.7	4.9
RZA AGRA 1994a	6/21/1994	8+50	2.5	Cadmium	7.3	2	1.7	4.3
RZA AGRA 1994a	6/21/1994	7+75	4.0	Cadmium	5.4	2	1.7	3.2
RZA AGRA 1994a	6/21/1994	7+50	0.5	Cadmium	5.2	2	1.7	3.1
RZA AGRA 1994a	6/21/1994	8+10-13W	0.4	Cadmium	4.7	2	1.7	2.8
RZA AGRA 1994a	6/21/1994	Mayer - 4	1.5	Cadmium	3.2	2	1.7	1.9
RZA AGRA 1994a	6/21/1994	Mayer - 3	3.0	Cadmium	3.2	2	1.7	1.9
RZA AGRA 1994a	6/21/1994	Mayer - 2	2.5	Cadmium	3.1	2	1.7	1.8
RZA AGRA 1994a	6/21/1994	7+00	4.0	Cadmium	2.1	2	1.7	1.2
RZA AGRA 1994a	6/21/1994	8+63-11W	0.5	Lead	3,600	250	67	54
RZA AGRA 1994a	6/21/1994	9+49-10W	0.5	Lead	3,500	250	67	52
RZA AGRA 1994a	6/21/1994	9+35-15E	0.4	Lead	3,100	250	67	46
RZA AGRA 1994a	6/21/1994	9+25	1.5	Lead	3,000	250	67	45
RZA AGRA 1994a	6/21/1994	9+25	4.0	Lead	2,600	250	67	39
RZA AGRA 1994a	6/21/1994	10+19	1.5	Lead	2,500	250	67	37
RZA AGRA 1994a	6/21/1994	9+08-26W	0.3	Lead	2,200	250	67	33

Table 27
Chemicals Detected Above Screening Levels in Cement Kiln Dust Soil Samples
McFarland Property

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	CKD Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
RZA AGRA 1994a	6/21/1994	8+50	2.5	Lead	1,800	250	67	27
RZA AGRA 1994a	6/21/1994	7+75	4.0	Lead	1,400	250	67	21
RZA AGRA 1994a	6/21/1994	7+50	0.5	Lead	980	250	67	15
RZA AGRA 1994a	6/21/1994	8+10-13W	0.4	Lead	920	250	67	14
RZA AGRA 1994a	6/21/1994	Mayer - 2	2.5	Lead	890	250	67	13
RZA AGRA 1994a	6/21/1994	Mayer - 3	3.0	Lead	880	250	67	13
RZA AGRA 1994a	6/21/1994	7+50	0.5	Mercury	0.13	2	0.03	4.3
RZA AGRA 1994a	6/21/1994	8+63-11W	0.5	Silver	10	400	0.61	16
RZA AGRA 1994a	6/21/1994	9+49-10W	0.5	Silver	9.8	400	0.61	16
RZA AGRA 1994a	6/21/1994	9+35-15E	0.4	Silver	9	400	0.61	15
RZA AGRA 1994a	6/21/1994	9+25	1.5	Silver	8.5	400	0.61	14
RZA AGRA 1994a	6/21/1994	10+19	1.5	Silver	8.3	400	0.61	14
RZA AGRA 1994a	6/21/1994	9+25	4.0	Silver	8.3	400	0.61	14
RZA AGRA 1994a	6/21/1994	9+08-26W	0.3	Silver	7.6	400	0.61	12
RZA AGRA 1994a	6/21/1994	7+75	4.0	Silver	6.4	400	0.61	10
RZA AGRA 1994a	6/21/1994	8+50	2.5	Silver	6.1	400	0.61	10
RZA AGRA 1994a	6/21/1994	Mayer - 3	3.0	Silver	4.4	400	0.61	7.2
RZA AGRA 1994a	6/21/1994	7+50	0.5	Silver	4.1	400	0.61	6.7
RZA AGRA 1994a	6/21/1994	Mayer - 2	2.5	Silver	3.9	400	0.61	6.4
RZA AGRA 1994a	6/21/1994	8+10-13W	0.4	Silver	3.8	400	0.61	6.2
RZA AGRA 1994a	6/21/1994	Mayer - 4	1.5	Silver	0.91	400	0.61	1.5
RZA AGRA 1994a	6/21/1994	7+00	4.0	Silver	0.8	400	0.61	1.3
RZA AGRA 1994a	6/21/1994	Mayer - 5	1.5	Silver	0.78	400	0.61	1.3

ft bgs - Feet below ground surface
mg/kg - Milligrams per kilogram
MTCA - Model Toxics Control Act
CSL - Cleanup Screening Level from Washington Sediment Management Standards

a - The lower of MTCA Method A or B cleanup levels was selected, from CLARC database.
b - Based on CSL. Where two screening levels are listed for a single chemical, the higher screening levels are for soil samples collected from the vadose zone and the lower screening levels are for soil samples collected from the saturated zone (SAIC 2006).
Groundwater elevation data are not available for this site. The saturated CSL screening levels were assumed for all CKD soil samples.
Table presents detected chemicals only.
Exceedance factors are the ratio of the detected concentration to the MTCA Cleanup Level or Soil-to-Sediment Screening Level, whichever is lower.

Table 28
Chemicals Detected Above Screening Levels in Calcium Carbonate Precipitate Samples
Puget Park and McFarland Property

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Carbonate Precipitate Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
Hart Crowser 1996	8/29/1996	PP-4	NA	Arsenic	270	0.67	590	403
Hart Crowser 1996	8/29/1996	PP-5	NA	Arsenic	100	0.67	590	149
Hart Crowser 1996	8/29/1996	MC-1	NA	Arsenic	35	0.67	590	52
Hart Crowser 1996	8/29/1996	PP-9	NA	Arsenic	35	0.67	590	52
Hart Crowser 1996	8/29/1996	PP-3	NA	Arsenic	16	0.67	590	24
Hart Crowser 1996	8/29/1996	PP-6	NA	Arsenic	10	0.67	590	15
Hart Crowser 1996	8/29/1996	PP-7	NA	Arsenic	10	0.67	590	15
Hart Crowser 1996	8/29/1996	PP-1	NA	Arsenic	9.0	0.67	590	13
Hart Crowser 1996	8/29/1996	PP-8	NA	Arsenic	6.2	0.67	590	9.3
Hart Crowser 1996	8/29/1996	MC-2	NA	Arsenic	5.2	0.67	590	8
Hart Crowser 1996	8/29/1996	PP-2	NA	Arsenic	2.9	0.67	590	4.3
Hart Crowser 1996	8/29/1996	MC-3	NA	Arsenic	2.4	0.67	590	4
Hart Crowser 1996	8/29/1996	PP-5	NA	Cadmium	19	2	1.7	11
Hart Crowser 1996	8/29/1996	PP-9	NA	Cadmium	1.9	2	1.7	1.1
Hart Crowser 1996	8/29/1996	PP-5	NA	Lead	5,300	250	67	791
Hart Crowser 1996	8/29/1996	PP-9	NA	Lead	1,600	250	67	24
Hart Crowser 1996	8/29/1996	PP-3	NA	Lead	1,500	250	67	22
Hart Crowser 1996	8/29/1996	PP-6	NA	Lead	1,300	250	67	19
Hart Crowser 1996	8/29/1996	MC-1	NA	Lead	410	250	67	6
Hart Crowser 1996	8/29/1996	PP-7	NA	Lead	280	250	67	4.2
Hart Crowser 1996	8/29/1996	PP-4	NA	Lead	250	250	67	3.7
Hart Crowser 1996	8/29/1996	MC-3	NA	Lead	130	250	67	2
Hart Crowser 1996	8/29/1996	PP-2	NA	Lead	95	250	67	1.4

mg/kg - Milligrams per kilogram
MTCA - Model Toxics Control Act
CSL - Cleanup Screening Level from Washington Sediment Management Standards

a - The lower of MTCA Method A or B cleanup levels for soil was selected, from CLARC database.
b - Based on CSL for soil. Where two screening levels are listed for a single chemical, the higher screening levels are for soil samples collected from the vadose zone and the lower screening levels are for soil samples collected from the saturated zone (SAIC 2006).
Perched water was observed at 2 to 4 inches bgs. The saturated CSL screening levels were assumed for all carbonate precipitate samples.
Table presents detected chemicals only.
Exceedance factors are the ratio of the detected concentration to the MTCA Cleanup Level or Soil-to-Sediment Screening Level, whichever is lower.

Table 29
Dioxins/Furans Detected Above Screening Levels in Puget Creek Sediment Samples
Puget Park and McFarland Property

Source	Sample Date	Sample Location	Chemical	Sediment Conc'n (pg/g DW)	TEQ (pg/g DW)	LDW Background TEQ (pg/g DW)	Exceedance Factor
Geo Group 2003b	10/8/2003	SCRN-7	1,2,3,4,6,7,8-HpCDD	251	2.51	1.6	1.6
Geo Group 2003b	10/8/2003	SCRN-7	OCDD	2,270	2.27	1.6	1.4
Geo Group 2003b	10/8/2003	SCRN-7	Total PCDD (Dioxin)	2,783.63	5.4	1.6	3.4
Geo Group 2003b	10/8/2003	SCRN-7	Total TEQ (Dioxin +Furan)	2,993.41	6.2	1.6	3.9

pg/g - Picograms per gram
DW - Dry weight
LDW - Lower Duwamish Waterway
TEQ - Toxic Equivalents

Table presents detected chemicals only.
Organic chemicals were not normalized for organic carbon content during testing.
Chemical concentrations are compared to the 95 percent upper confidence limit on the mean of the natural background concentration for dioxins/furans (AECOM 2010). Sediment Management Standards are not available for comparison.
Exceedance factors are the ratio of the detected concentrations to the LDW background TEQ, exceedance factors are shown only if they are greater than 1.

Table 30
Chemicals Detected Above Screening Levels in Surface Water and Leachate Samples
Washington Federal Savings & Loan Property

Source	Sample Date	Sample Location	Chemical	Surface Water Conc'n (ug/L)	Marine Chronic WQS[a] (ug/L)	Marine Acute WQS[b] (ug/L)	Chronic WQS Exceedance Factor	GW-to-Sediment Screening Level[c] (ug/L)	Exceedance Factor
Environmental Control 1990b	2/1/1990	002614	Copper	26	2.4	2.4	11	120	<1
Environmental Control 1990a	5/19/1989	907827 Clear Water - embankment	Copper	20	2.4	2.4	8.3	120	<1
Environmental Control 1990a	5/19/1989	907828 Zd Drain Water	Copper	20	2.4	2.4	8.3	120	<1
Environmental Control 1990a	5/19/1989	907829 Zd Drain Water	Copper	20	2.4	2.4	8.3	120	<1
Environmental Control 1990b	2/1/1990	002617	Copper	16	2.4	2.4	6.7	120	<1
Environmental Control 1990b	2/1/1990	002615	Copper	11	2.4	2.4	4.6	120	<1
Environmental Control 1990a	5/19/1989	907830 Catch Basin Water	Copper	10	2.4	2.4	4.2	120	<1
Environmental Control 1990b	2/1/1990	002616	Copper	4	2.4	2.4	1.7	120	<1
Ecology 1989b	3/30/1989	CKD-1	Lead	1,100	8.1	210	136	13	85
Ecology 1989b	3/30/1989	CKD-2	Lead	940	8.1	210	116	13	72
Environmental Control 1990a	5/19/1989	907827 Clear Water - embankment	Lead	900	8.1	210	111	13	69
Environmental Control 1990a	5/19/1989	907830 Catch Basin Water	Lead	800	8.1	210	99	13	62
Wendlick 1999	8/6/1999	Leachate Sample #1	Lead	790	8.1	210	98	13	61
Wendlick 1999	8/6/1999	Leachate Sample #2	Lead	760	8.1	210	94	13	58
Ecology 1989b	3/30/1989	CKD-3	Lead	670	8.1	210	83	13	52
Environmental Control 1990b	2/1/1990	002614	Lead	450	8.1	210	56	13	35
GeoEngineers 1993	3/3/1993	Leachate Collection System Manhole	Lead	46	8.1	210	5.7	13	3.5
Environmental Control 1990a	5/19/1989	907829 Zd Drain Water	Lead	30	8.1	210	3.7	13	2.3
Ecology 1989b	3/30/1989	CKD-3	Mercury	1.4	0.025	1.8	56	0.0074	189
Ecology 1989b	3/30/1989	CKD-2	Mercury	0.9	0.025	1.8	36	0.0074	122
Ecology 1989b	3/30/1989	CKD-1	Mercury	0.3	0.025	1.8	12	0.0074	41
Environmental Control 1990b	2/1/1990	002614	Silver	30				1.5	20
Environmental Control 1990b	2/1/1990	002616	Silver	10				1.5	6.7

ug/L - Microgram per liter
WQS - Water Quality Standards
GW - Groundwater
CSL - Cleanup Screening Level from Washington Sediment Management Standards

a - The lower of the ARARS for Surface Water Aquatic Life (Marine/Chronic) were selected from CLARC database
b - The lower of the ARARS for Surface Water Aquatic Life (Marine/Acute) were selected from CLARC database
c - Based on CSL (SAIC 2006).
Table presents detected chemicals only.
Exceedance factors are the ratio of the detected concentrations to the minimum screening level availbe in the WA State CLARC database, exceedance factors are shown only if they are greater than 1.

Table 31
Chemicals Detected Above Screening Levels in Soil and Cement Kiln Dust Samples
Washington Federal Savings & Loan Property

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor	Notes
GeoEngineers 1993	3/3/1993	TP-4	1.5	Arsenic	230	0.67	590	343	CKD
GeoEngineers 1993	3/3/1993	TP-10	2	Arsenic	190	0.67	590	284	CKD
GeoEngineers 1993	3/3/1993	TP-6	2	Arsenic	160	0.67	590	239	CKD
GeoEngineers 1993	3/3/1993	TP-7	2.5	Arsenic	140	0.67	590	209	CKD
GeoEngineers 1993	3/3/1993	TP-1	2	Arsenic	93	0.67	590	139	CKD
GeoEngineers 1993	3/3/1993	TP-3	1.5	Arsenic	19	0.67	590	28	Soil
GeoEngineers 1993	3/3/1993	TP-5	2	Arsenic	3.8	0.67	590	5.7	Soil
GeoEngineers 1993	3/3/1993	TP-9	1.5	Arsenic	3.2	0.67	590	4.8	Soil
GeoEngineers 1993	3/3/1993	TP-8	2.5	Arsenic	3.1	0.67	590	4.6	Soil
GeoEngineers 1993	3/3/1993	TP-2	2	Arsenic	1.8	0.67	590	2.7	Soil
GeoEngineers 1993	3/3/1993	TP-4	1.5	Cadmium	6.8	2	1.7	4.0	CKD
GeoEngineers 1993	3/3/1993	TP-1	2	Cadmium	3.6	2	1.7	2.1	CKD
GeoEngineers 1993	3/3/1993	TP-10	2	Cadmium	3	2	1.7	1.8	CKD
GeoEngineers 1993	3/3/1993	TP-6	2	Cadmium	3	2	1.7	1.8	CKD
GeoEngineers 1993	3/3/1993	TP-7	2.5	Cadmium	2.2	2	1.7	1.3	CKD
GeoEngineers 1993	3/3/1993	TP-4	1.5	Lead	2,400	250	67	36	CKD
GeoEngineers 1993	3/3/1993	TP-1	2	Lead	1,200	250	67	18	CKD
GeoEngineers 1993	3/3/1993	TP-10	2	Lead	1,100	250	67	16	CKD
GeoEngineers 1993	3/3/1993	TP-7	2.5	Lead	750	250	67	11	CKD
GeoEngineers 1993	3/3/1993	TP-6	2	Lead	670	250	67	10	CKD
GeoEngineers 1993	3/3/1993	TP-3	1.5	Lead	120	250	67	1.8	Soil
GeoEngineers 1993	3/3/1993	TP-4	1.5	Silver	3.7	400	0.61	6.1	CKD
GeoEngineers 1993	3/3/1993	TP-10	2	Silver	0.98	400	0.61	1.6	CKD
GeoEngineers 1993	3/3/1993	TP-1	2	Silver	0.97	400	0.61	1.6	CKD
GeoEngineers 1993	3/3/1993	TP-7	2.5	Silver	0.76	400	0.61	1.2	CKD

ft bgs - Feet below ground surface
mg/kg - Milligrams per kilogram
MTCA - Model Toxics Control Act
CSL - Cleanup Screening Level from Washington Sediment Management Standards
CKD - cement kiln dust

a - The lower of MTCA Method A or B cleanup levels was selected, from CLARC database.
b - Based on CSL. Where two screening levels are listed for a single chemical, the higher screening levels are for soil samples collected from the vadose zone and the lower screening levels are for soil samples collected from the saturated zone (SAIC 2006).
Groundwater elevation data are not available for this site. The saturated CSL screening levels were assumed for all CKD soil samples.
Table presents detected chemicals only.
Exceedance factors are the ratio of the detected concentration to the MTCA Cleanup Level or Soil-to-Sediment Screening Level, whichever is lower.

Lower Duwamish Waterway
RM 0.0 to 1.0 West
(Spokane Street to Kellogg Island)

Summary of Existing Information and Identification of Data Gaps

Volume 2: Appendices A–F

Prepared for

DEPARTMENT OF ECOLOGY
State of Washington

Toxics Cleanup Program
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Appendix A
Sediment, Seep, and Bank Soil Sampling Data
RM 0.0 to 1.0 West
(Spokane Street to Kellogg Island)

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
LDWRI-Surface Sediment Round 1	LDW-SS36	01/24/05	1,2,3,4,6,7,8-HpCDD	9.82E-04	1.89						
LDW Dioxin Sampling	LDW-SS509	12/15/09	1,2,3,4,6,7,8-HpCDD	6.00E-04	7.08						
EPA Site Inspection	DR042	08/12/98	1,2,3,4,6,7,8-HpCDD	4.40E-04	9.23						
LDW Dioxin Sampling	LDW-SS514	12/16/09	1,2,3,4,6,7,8-HpCDD	3.33E-04	1.63						
LDW Dioxin Sampling	LDW-SS507	12/16/09	1,2,3,4,6,7,8-HpCDD	3.15E-04	1.79						
LDWRI-Surface Sediment Round 1	LDW-SS28	01/24/05	1,2,3,4,6,7,8-HpCDD	2.80E-04	1.22						
LDW Outfall Sampling	LDW-SS2157-A	03/24/11	1,2,3,4,6,7,8-HpCDD	2.46E-04	1.81						
EPA Site Inspection	DR047	09/14/98	1,2,3,4,6,7,8-HpCDD	2.30E-04	1.4						
EPA Site Inspection	DR046	08/12/98	1,2,3,4,6,7,8-HpCDD	1.90E-04	2.26						
EPA Site Inspection	DR033	08/11/98	1,2,3,4,6,7,8-HpCDD	1.40E-04	1.72						
LDW Outfall Sampling	LDW-SS2150-A	04/20/11	1,2,3,4,6,7,8-HpCDD	4.75E-05	4.42						
LDWRI-Surface Sediment Round 1	LDW-SS14	01/17/05	1,2,3,4,6,7,8-HpCDD	4.14E-05 J	0.79						
LDW Dioxin Sampling	LDW-SS509	12/15/09	1,2,3,4,6,7,8-HpCDF	2.19E-04	7.08						
LDWRI-Surface Sediment Round 1	LDW-SS36	01/24/05	1,2,3,4,6,7,8-HpCDF	1.23E-04	1.89						
EPA Site Inspection	DR042	08/12/98	1,2,3,4,6,7,8-HpCDF	1.10E-04	9.23						
LDW Dioxin Sampling	LDW-SS514	12/16/09	1,2,3,4,6,7,8-HpCDF	9.32E-05	1.63						
LDWRI-Surface Sediment Round 1	LDW-SS28	01/24/05	1,2,3,4,6,7,8-HpCDF	6.34E-05	1.22						
LDW Dioxin Sampling	LDW-SS507	12/16/09	1,2,3,4,6,7,8-HpCDF	5.84E-05	1.79						
LDW Outfall Sampling	LDW-SS2157-A	03/24/11	1,2,3,4,6,7,8-HpCDF	4.83E-05	1.81						
EPA Site Inspection	DR047	09/14/98	1,2,3,4,6,7,8-HpCDF	4.10E-05	1.4						
EPA Site Inspection	DR046	08/12/98	1,2,3,4,6,7,8-HpCDF	3.90E-05	2.26						
EPA Site Inspection	DR033	08/11/98	1,2,3,4,6,7,8-HpCDF	2.90E-05	1.72						
LDW Outfall Sampling	LDW-SS2150-A	04/20/11	1,2,3,4,6,7,8-HpCDF	1.87E-05	4.42						
LDWRI-Surface Sediment Round 1	LDW-SS14	01/17/05	1,2,3,4,6,7,8-HpCDF	6.71E-06	0.79						
LDW Dioxin Sampling	LDW-SS509	12/15/09	1,2,3,4,7,8,9-HpCDF	1.15E-05	7.08						
LDW Dioxin Sampling	LDW-SS514	12/16/09	1,2,3,4,7,8,9-HpCDF	1.07E-05	1.63						
LDWRI-Surface Sediment Round 1	LDW-SS36	01/24/05	1,2,3,4,7,8,9-HpCDF	1.03E-05 J	1.89						
EPA Site Inspection	DR042	08/12/98	1,2,3,4,7,8,9-HpCDF	9.20E-06 J	9.23						
LDWRI-Surface Sediment Round 1	LDW-SS28	01/24/05	1,2,3,4,7,8,9-HpCDF	5.50E-06 J	1.22						
EPA Site Inspection	DR047	09/14/98	1,2,3,4,7,8,9-HpCDF	5.20E-06 J	1.4						
LDW Dioxin Sampling	LDW-SS507	12/16/09	1,2,3,4,7,8,9-HpCDF	4.56E-06 J	1.79						
LDW Outfall Sampling	LDW-SS2157-A	03/24/11	1,2,3,4,7,8,9-HpCDF	3.93E-06 J	1.81						
LDW Outfall Sampling	LDW-SS2150-A	04/20/11	1,2,3,4,7,8,9-HpCDF	8.13E-07 J	4.42						
LDWRI-Surface Sediment Round 1	LDW-SS14	01/17/05	1,2,3,4,7,8,9-HpCDF	4.21E-07 J	0.79						
LDW Dioxin Sampling	LDW-SS509	12/15/09	1,2,3,4,7,8-HxCDD	1.37E-05	7.08						
LDWRI-Surface Sediment Round 1	LDW-SS36	01/24/05	1,2,3,4,7,8-HxCDD	5.90E-06 J	1.89						
LDWRI-Surface Sediment Round 1	LDW-SS28	01/24/05	1,2,3,4,7,8-HxCDD	2.66E-06 J	1.22						
LDW Outfall Sampling	LDW-SS2157-A	03/24/11	1,2,3,4,7,8-HxCDD	2.51E-06 J	1.81						
LDW Dioxin Sampling	LDW-SS507	12/16/09	1,2,3,4,7,8-HxCDD	2.51E-06 J	1.79						
LDW Dioxin Sampling	LDW-SS514	12/16/09	1,2,3,4,7,8-HxCDD	2.41E-06 J	1.63						
LDW Outfall Sampling	LDW-SS2150-A	04/20/11	1,2,3,4,7,8-HxCDD	7.66E-07 J	4.42						
LDWRI-Surface Sediment Round 1	LDW-SS14	01/17/05	1,2,3,4,7,8-HxCDD	3.82E-07 J	0.79						
LDW Dioxin Sampling	LDW-SS509	12/15/09	1,2,3,4,7,8-HxCDF	3.94E-05	7.08						

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
LDW Dioxin Sampling	LDW-SS514	12/16/09	1,2,3,4,7,8-HxCDF	2.42E-05	1.63						
LDWRI-Surface Sediment Round 1	LDW-SS36	01/24/05	1,2,3,4,7,8-HxCDF	1.54E-05 J	1.89						
EPA Site Inspection	DR042	08/12/98	1,2,3,4,7,8-HxCDF	1.30E-05 J	9.23						
EPA Site Inspection	DR047	09/14/98	1,2,3,4,7,8-HxCDF	9.30E-06	1.4						
LDWRI-Surface Sediment Round 1	LDW-SS28	01/24/05	1,2,3,4,7,8-HxCDF	9.22E-06 J	1.22						
LDW Dioxin Sampling	LDW-SS507	12/16/09	1,2,3,4,7,8-HxCDF	8.00E-06	1.79						
EPA Site Inspection	DR046	08/12/98	1,2,3,4,7,8-HxCDF	5.90E-06 J	2.26						
LDW Outfall Sampling	LDW-SS2157-A	03/24/11	1,2,3,4,7,8-HxCDF	5.73E-06	1.81						
EPA Site Inspection	DR033	08/11/98	1,2,3,4,7,8-HxCDF	5.30E-06 J	1.72						
LDW Outfall Sampling	LDW-SS2150-A	04/20/11	1,2,3,4,7,8-HxCDF	1.20E-06 J	4.42						
LDWRI-Surface Sediment Round 1	LDW-SS14	01/17/05	1,2,3,4,7,8-HxCDF	6.94E-07 J	0.79						
LDW Dioxin Sampling	LDW-SS509	12/15/09	1,2,3,6,7,8-HxCDD	4.77E-05	7.08						
EPA Site Inspection	DR042	08/12/98	1,2,3,6,7,8-HxCDD	2.60E-05	9.23						
LDWRI-Surface Sediment Round 1	LDW-SS36	01/24/05	1,2,3,6,7,8-HxCDD	2.43E-05	1.89						
LDW Dioxin Sampling	LDW-SS514	12/16/09	1,2,3,6,7,8-HxCDD	1.29E-05	1.63						
EPA Site Inspection	DR047	09/14/98	1,2,3,6,7,8-HxCDD	1.20E-05	1.4						
LDWRI-Surface Sediment Round 1	LDW-SS28	01/24/05	1,2,3,6,7,8-HxCDD	1.16E-05 J	1.22						
LDW Dioxin Sampling	LDW-SS507	12/16/09	1,2,3,6,7,8-HxCDD	1.09E-05	1.79						
LDW Outfall Sampling	LDW-SS2157-A	03/24/11	1,2,3,6,7,8-HxCDD	9.17E-06	1.81						
EPA Site Inspection	DR046	08/12/98	1,2,3,6,7,8-HxCDD	8.30E-06 J	2.26						
EPA Site Inspection	DR033	08/11/98	1,2,3,6,7,8-HxCDD	6.80E-06 J	1.72						
LDW Outfall Sampling	LDW-SS2150-A	04/20/11	1,2,3,6,7,8-HxCDD	2.14E-06	4.42						
LDWRI-Surface Sediment Round 1	LDW-SS14	01/17/05	1,2,3,6,7,8-HxCDD	1.73E-06 J	0.79						
LDW Dioxin Sampling	LDW-SS509	12/15/09	1,2,3,6,7,8-HxCDF	3.02E-05	7.08						
LDW Dioxin Sampling	LDW-SS514	12/16/09	1,2,3,6,7,8-HxCDF	4.58E-06	1.63						
LDWRI-Surface Sediment Round 1	LDW-SS36	01/24/05	1,2,3,6,7,8-HxCDF	4.20E-06 J	1.89						
LDWRI-Surface Sediment Round 1	LDW-SS28	01/24/05	1,2,3,6,7,8-HxCDF	2.94E-06 J	1.22						
LDW Dioxin Sampling	LDW-SS507	12/16/09	1,2,3,6,7,8-HxCDF	2.20E-06 J	1.79						
LDW Outfall Sampling	LDW-SS2157-A	03/24/11	1,2,3,6,7,8-HxCDF	1.81E-06 J	1.81						
LDW Outfall Sampling	LDW-SS2150-A	04/20/11	1,2,3,6,7,8-HxCDF	6.37E-07 J	4.42						
LDWRI-Surface Sediment Round 1	LDW-SS14	01/17/05	1,2,3,6,7,8-HxCDF	3.35E-07 J	0.79						
LDW Dioxin Sampling	LDW-SS509	12/15/09	1,2,3,7,8,9-HxCDD	4.18E-05	7.08						
LDWRI-Surface Sediment Round 1	LDW-SS36	01/24/05	1,2,3,7,8,9-HxCDD	1.96E-05 J	1.89						
EPA Site Inspection	DR042	08/12/98	1,2,3,7,8,9-HxCDD	1.30E-05 J	9.23						
EPA Site Inspection	DR047	09/14/98	1,2,3,7,8,9-HxCDD	8.10E-06 J	1.4						
LDW Dioxin Sampling	LDW-SS514	12/16/09	1,2,3,7,8,9-HxCDD	7.65E-06	1.63						
LDWRI-Surface Sediment Round 1	LDW-SS28	01/24/05	1,2,3,7,8,9-HxCDD	7.43E-06 J	1.22						
LDW Dioxin Sampling	LDW-SS507	12/16/09	1,2,3,7,8,9-HxCDD	7.39E-06	1.79						
LDW Outfall Sampling	LDW-SS2157-A	03/24/11	1,2,3,7,8,9-HxCDD	7.27E-06 J	1.81						
EPA Site Inspection	DR033	08/11/98	1,2,3,7,8,9-HxCDD	4.80E-06 J	1.72						
LDW Outfall Sampling	LDW-SS2150-A	04/20/11	1,2,3,7,8,9-HxCDD	1.81E-06 J	4.42						
LDWRI-Surface Sediment Round 1	LDW-SS14	01/17/05	1,2,3,7,8,9-HxCDD	1.19E-06 J	0.79						
LDW Dioxin Sampling	LDW-SS509	12/15/09	1,2,3,7,8,9-HxCDF	2.35E-06 J	7.08						

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
LDWRI-Surface Sediment Round 1	LDW-SS36	01/24/05	1,2,3,7,8,9-HxCDF	5.50E-07 J	1.89						
LDW Dioxin Sampling	LDW-SS514	12/16/09	1,2,3,7,8,9-HxCDF	3.35E-07 J	1.63						
LDWRI-Surface Sediment Round 1	LDW-SS28	01/24/05	1,2,3,7,8,9-HxCDF	2.84E-07 J	1.22						
LDW Dioxin Sampling	LDW-SS507	12/16/09	1,2,3,7,8,9-HxCDF	1.97E-07 J	1.79						
LDWRI-Surface Sediment Round 1	LDW-SS14	01/17/05	1,2,3,7,8,9-HxCDF	7.30E-08 J	0.79						
LDW Dioxin Sampling	LDW-SS509	12/15/09	1,2,3,7,8-PeCDD	1.53E-05	7.08						
LDWRI-Surface Sediment Round 1	LDW-SS36	01/24/05	1,2,3,7,8-PeCDD	3.26E-06 J	1.89						
LDWRI-Surface Sediment Round 1	LDW-SS28	01/24/05	1,2,3,7,8-PeCDD	1.79E-06 J	1.22						
LDW Dioxin Sampling	LDW-SS507	12/16/09	1,2,3,7,8-PeCDD	1.44E-06 J	1.79						
LDW Dioxin Sampling	LDW-SS514	12/16/09	1,2,3,7,8-PeCDD	1.43E-06 J	1.63						
LDW Outfall Sampling	LDW-SS2157-A	03/24/11	1,2,3,7,8-PeCDD	1.20E-06 J	1.81						
LDW Outfall Sampling	LDW-SS2150-A	04/20/11	1,2,3,7,8-PeCDD	4.55E-07 J	4.42						
LDWRI-Surface Sediment Round 1	LDW-SS14	01/17/05	1,2,3,7,8-PeCDD	2.84E-07 J	0.79						
LDW Dioxin Sampling	LDW-SS509	12/15/09	1,2,3,7,8-PeCDF	2.88E-05	7.08						
LDWRI-Surface Sediment Round 1	LDW-SS36	01/24/05	1,2,3,7,8-PeCDF	1.90E-06 J	1.89						
LDWRI-Surface Sediment Round 1	LDW-SS28	01/24/05	1,2,3,7,8-PeCDF	1.57E-06 J	1.22						
LDW Dioxin Sampling	LDW-SS514	12/16/09	1,2,3,7,8-PeCDF	1.14E-06 J	1.63						
LDW Dioxin Sampling	LDW-SS507	12/16/09	1,2,3,7,8-PeCDF	9.44E-07 J	1.79						
LDW Outfall Sampling	LDW-SS2157-A	03/24/11	1,2,3,7,8-PeCDF	8.19E-07 J	1.81						
LDWRI-Surface Sediment Round 1	LDW-SS14	01/17/05	1,2,3,7,8-PeCDF	2.14E-07 J	0.79						
LDWRI-Surface Sediment Round 2	LDW-SS19	03/08/05	1,2-Dichlorobenzene	7.30E-03	2.07	3.53E-01	2.3	2.3	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	05/01/97	1,2-Dichlorobenzene	2.70E-03 J	2.03	1.33E-01	2.3	2.3	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS310	10/03/06	1,4-Dichlorobenzene	7.40E-03	1.63	4.54E-01	3.1	9	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	03/06/97	1,4-Dichlorobenzene	2.20E-03 J	2.27	9.69E-02	3.1	9	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	03/12/97	1,4-Dichlorobenzene	2.00E-03 J	2.09	9.57E-02	3.1	9	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS312	10/03/06	1-Methylnaphthalene	1.10E-01	4.2						
LDW Dioxin Sampling	LDW-SS509	12/15/09	1-Methylnaphthalene	5.50E-02	7.08						
LDW Outfall Sampling	LDW-SS2157-A	03/24/11	1-Methylnaphthalene	2.40E-02	1.81						
LDW Outfall Sampling	LDW-SS2149-A	04/20/11	1-Methylnaphthalene	1.70E-02 J	9.22						
LDW Outfall Sampling	LDW-SSSWCSO-A	04/08/11	1-Methylnaphthalene	1.70E-02 J	2.69						
Puget Sound Sediment Quality/ NOAA Site Characterization	203	06/22/98	1-Methylnaphthalene	1.50E-02	1.5						
LDW Outfall Sampling	LDW-SSSWCSO-U	04/08/11	1-Methylnaphthalene	1.40E-02 J	1.2						
Ecology SPI	SPI-108	08/11/06	1-Methylnaphthalene	1.40E-02	1.55						
Ecology SPI	TRI-015T	08/08/06	1-Methylnaphthalene	1.40E-02	2.16						
Ecology SPI	TRI-010	08/08/06	1-Methylnaphthalene	1.20E-02	2.2						
LDW Outfall Sampling	LDW-SS2232-A	04/20/11	1-Methylnaphthalene	1.00E-02 J	1.11						
LDWRI-Benthic	B2a	08/13/04	1-Methylnaphthalene	6.20E-03	1.97						
LDWRI-Benthic	B1a	08/13/04	1-Methylnaphthalene	3.60E-03 J	1.7						
LDWRI-Benthic	B3a	08/26/04	1-Methylnaphthalene	2.30E-03 J	1.36						
Puget Sound Sediment Quality/ NOAA Site Characterization	203	06/22/98	1-Methylphenanthrene	2.70E-02	1.5						
LDW Dioxin Sampling	LDW-SS509	12/15/09	2,3,4,6,7,8-HxCDF	3.29E-05	7.08						

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
LDWRI-Surface Sediment Round 1	LDW-SS36	01/24/05	2,3,4,6,7,8-HxCDF	3.31E-06 J	1.89						
LDW Dioxin Sampling	LDW-SS514	12/16/09	2,3,4,6,7,8-HxCDF	2.53E-06 J	1.63						
LDWRI-Surface Sediment Round 1	LDW-SS28	01/24/05	2,3,4,6,7,8-HxCDF	2.34E-06 J	1.22						
LDW Dioxin Sampling	LDW-SS507	12/16/09	2,3,4,6,7,8-HxCDF	1.63E-06 J	1.79						
LDW Outfall Sampling	LDW-SS2157-A	03/24/11	2,3,4,6,7,8-HxCDF	1.41E-06 J	1.81						
LDWRI-Surface Sediment Round 1	LDW-SS14	01/17/05	2,3,4,6,7,8-HxCDF	3.07E-07 J	0.79						
LDW Dioxin Sampling	LDW-SS509	12/15/09	2,3,4,7,8-PeCDF	5.48E-05	7.08						
LDWRI-Surface Sediment Round 1	LDW-SS36	01/24/05	2,3,4,7,8-PeCDF	4.25E-06 J	1.89						
LDWRI-Surface Sediment Round 1	LDW-SS28	01/24/05	2,3,4,7,8-PeCDF	3.73E-06 J	1.22						
LDW Dioxin Sampling	LDW-SS514	12/16/09	2,3,4,7,8-PeCDF	3.48E-06 J	1.63						
LDW Dioxin Sampling	LDW-SS507	12/16/09	2,3,4,7,8-PeCDF	1.96E-06 J	1.79						
LDW Outfall Sampling	LDW-SS2157-A	03/24/11	2,3,4,7,8-PeCDF	1.53E-06 J	1.81						
LDW Outfall Sampling	LDW-SS2150-A	04/20/11	2,3,4,7,8-PeCDF	4.60E-07 J	4.42						
LDWRI-Surface Sediment Round 1	LDW-SS14	01/17/05	2,3,4,7,8-PeCDF	3.92E-07 J	0.79						
Puget Sound Sediment Quality/ NOAA Site Characterization	203	06/22/98	2,3,5-Trimethylnaphthalene	1.80E-02	1.5						
LDW Dioxin Sampling	LDW-SS509	12/15/09	2,3,7,8-TCDD	5.59E-06	7.08						
LDWRI-Surface Sediment Round 1	LDW-SS36	01/24/05	2,3,7,8-TCDD	8.59E-07 J	1.89						
LDWRI-Surface Sediment Round 1	LDW-SS28	01/24/05	2,3,7,8-TCDD	5.44E-07 J	1.22						
LDW Dioxin Sampling	LDW-SS507	12/16/09	2,3,7,8-TCDD	4.53E-07 J	1.79						
LDW Outfall Sampling	LDW-SS2157-A	03/24/11	2,3,7,8-TCDD	4.38E-07 J	1.81						
LDW Dioxin Sampling	LDW-SS514	12/16/09	2,3,7,8-TCDD	3.81E-07 J	1.63						
LDWRI-Surface Sediment Round 1	LDW-SS14	01/17/05	2,3,7,8-TCDD	8.90E-08 J	0.79						
LDW Outfall Sampling	LDW-SS2150-A	04/20/11	2,3,7,8-TCDD	8.60E-08 J	4.42						
EPA Site Inspection	DR042	08/12/98	2,3,7,8-TCDD TEQ	1.61E-05	9.23						
EPA Site Inspection	DR047	09/14/98	2,3,7,8-TCDD TEQ	8.71E-06	1.4						
EPA Site Inspection	DR046	08/12/98	2,3,7,8-TCDD TEQ	7.71E-06	2.26						
EPA Site Inspection	DR033	08/11/98	2,3,7,8-TCDD TEQ	5.87E-06	1.72						
LDW Dioxin Sampling	LDW-SS509	12/15/09	2,3,7,8-TCDF	5.54E-05	7.08						
EPA Site Inspection	DR042	08/12/98	2,3,7,8-TCDF	4.30E-06	9.23						
LDWRI-Surface Sediment Round 1	LDW-SS28	01/24/05	2,3,7,8-TCDF	2.87E-06	1.22						
EPA Site Inspection	DR046	08/12/98	2,3,7,8-TCDF	2.60E-06	2.26						
EPA Site Inspection	DR047	09/14/98	2,3,7,8-TCDF	2.50E-06	1.4						
LDWRI-Surface Sediment Round 1	LDW-SS36	01/24/05	2,3,7,8-TCDF	2.20E-06	1.89						
EPA Site Inspection	DR033	08/11/98	2,3,7,8-TCDF	1.90E-06	1.72						
LDW Dioxin Sampling	LDW-SS514	12/16/09	2,3,7,8-TCDF	1.62E-06	1.63						
LDW Dioxin Sampling	LDW-SS507	12/16/09	2,3,7,8-TCDF	1.55E-06	1.79						
LDW Outfall Sampling	LDW-SS2157-A	03/24/11	2,3,7,8-TCDF	1.18E-06	1.81						
LDW Outfall Sampling	LDW-SS2150-A	04/20/11	2,3,7,8-TCDF	4.42E-07 J	4.42						
LDWRI-Surface Sediment Round 1	LDW-SS14	01/17/05	2,3,7,8-TCDF	4.26E-07 J	0.79						
LDWRI-Benthic	B2a	08/13/04	2,4'-DDT	5.40E-03 JN	1.97						
LDWRI-Benthic	C2-2	08/26/04	2,4'-DDT	3.30E-03	1.06						
LDWRI-Benthic	C2-1	08/26/04	2,4'-DDT	2.20E-03	1.82						

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
LDWRI-Benthic	C3-1	08/27/04	2,4'-DDT	1.90E-03	0.93						
LDWRI-Benthic	C3-2	08/27/04	2,4'-DDT	1.80E-03	1.31						
LDWRI-Benthic	B3a	08/26/04	2,4'-DDT	1.30E-03	1.36						
LDWRI-Benthic	B1a	08/13/04	2,4'-DDT	4.40E-04 JN	1.7						
LDWRI-Benthic	C1	08/26/04	2,4'-DDT	2.40E-04 J	0.47						
Ecology SPI	SPI-108	08/11/06	2,4-Dimethylphenol	5.20E-02	1.55		0.029	0.029	mg/kg DW	1.8	1.8
Ecology SPI	TRI-010	08/08/06	2,4-Dimethylphenol	4.50E-02	2.2		0.029	0.029	mg/kg DW	1.6	1.6
Ecology SPI	TRI-016	08/08/06	2,4-Dimethylphenol	4.40E-02	2.38		0.029	0.029	mg/kg DW	1.5	1.5
LDWRI-Surface Sediment Round 3	LDW-SS311	10/03/06	2,4-Dimethylphenol	2.00E-02	4.36		0.029	0.029	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS312	10/03/06	2,4-Dimethylphenol	1.70E-02	4.2		0.029	0.029	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2149-A	04/20/11	2,4-Dimethylphenol	7.30E-03	9.22		0.029	0.029	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SSSWCSO-U	04/08/11	2,4-Dimethylphenol	6.70E-03	1.2		0.029	0.029	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SSSWCSO-A	04/08/11	2,4-Dimethylphenol	6.10E-03	2.69		0.029	0.029	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2157-A	03/24/11	2,4-Dimethylphenol	5.70E-03	1.81		0.029	0.029	mg/kg DW	<1	<1
Puget Sound Sediment Quality/ NOAA Site Characterization	203	06/22/98	2,6-Dimethylnaphthalene	4.80E-02	1.5						
Terminal 105 Site Assessment	SS1	11/23/93	2-Butanone	2.40E-02 J	1.9						
EPA Site Inspection	DR037	08/18/98	2-Methylnaphthalene	3.10E-01	2.02	1.53E+01	38	64	mg/kg OC	<1	<1
EPA Site Inspection	DR033	08/11/98	2-Methylnaphthalene	1.30E-01	1.72	7.56E+00	38	64	mg/kg OC	<1	<1
EPA Site Inspection	DR038	09/02/98	2-Methylnaphthalene	1.00E-01	2.62	3.82E+00	38	64	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS312[a]	10/03/06	2-Methylnaphthalene	9.60E-02	4.2		0.67	1.4	mg/kg DW	<1	<1
LDW Dioxin Sampling	LDW-SS509[a]	12/15/09	2-Methylnaphthalene	5.80E-02	7.08		0.67	1.4	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS24[a]	03/14/05	2-Methylnaphthalene	5.20E-02	5.99		0.67	1.4	mg/kg DW	<1	<1
Ecology SPI	SPI-108	08/11/06	2-Methylnaphthalene	4.70E-02	1.55	3.03E+00	38	64	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2157-A	03/24/11	2-Methylnaphthalene	4.20E-02	1.81	2.32E+00	38	64	mg/kg OC	<1	<1
EPA Site Inspection	DR040[a]	08/12/98	2-Methylnaphthalene	4.00E-02	4.69	8.53E-01	0.67	1.4	mg/kg DW	<1	<1
EPA Site Inspection	DR067	08/18/98	2-Methylnaphthalene	4.00E-02	0.82	4.88E+00	38	64	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2150-A[a]	04/20/11	2-Methylnaphthalene	3.50E-02	9.22		0.67	1.4	mg/kg DW	<1	<1
Puget Sound Sediment Quality/ NOAA Site Characterization	203	06/22/98	2-Methylnaphthalene	2.90E-02	1.5	1.93E+00	38	64	mg/kg OC	<1	<1
Ecology SPI	TRI-015T	08/08/06	2-Methylnaphthalene	2.80E-02	2.16	1.30E+00	38	64	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS9	03/14/05	2-Methylnaphthalene	2.50E-02	1.79	1.40E+00	38	64	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SSSWCSO-A	04/08/11	2-Methylnaphthalene	2.40E-02	2.69	8.92E-01	38	64	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SSSWCSO-U	04/08/11	2-Methylnaphthalene	2.30E-02	1.2	1.92E+00	38	64	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS23	01/18/05	2-Methylnaphthalene	2.10E-02	1.23	1.71E+00	38	64	mg/kg OC	<1	<1
Ecology SPI	TRI-010	08/08/06	2-Methylnaphthalene	2.10E-02	2.2	9.55E-01	38	64	mg/kg OC	<1	<1
EPA Site Inspection	DR031	08/11/98	2-Methylnaphthalene	2.00E-02	2.07	9.66E-01	38	64	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2232-A	04/20/11	2-Methylnaphthalene	1.50E-02 J	1.11	1.35E+00	38	64	mg/kg OC	<1	<1
Terminal 105 Site Assessment	SS2	11/17/93	2-Methylnaphthalene	1.50E-02 J	0.98	1.53E+00	38	64	mg/kg OC	<1	<1
Ecology SPI	TRI-016	08/08/06	2-Methylnaphthalene	1.50E-02	2.38	6.30E-01	38	64	mg/kg OC	<1	<1
LDWRI-Benthic	B2a	08/13/04	2-Methylnaphthalene	7.40E-03	1.97	3.76E-01	38	64	mg/kg OC	<1	<1
LDWRI-Benthic	C2-1	08/26/04	2-Methylnaphthalene	6.20E-03	1.82	3.41E-01	38	64	mg/kg OC	<1	<1
LDWRI-Benthic	B1a	08/13/04	2-Methylnaphthalene	4.10E-03 J	1.7	2.41E-01	38	64	mg/kg OC	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
LDWRI-Benthic	C3-1	08/27/04	2-Methylnaphthalene	3.60E-03 J	0.93	3.87E-01	38	64	mg/kg OC	<1	<1
LDWRI-Benthic	C3-2	08/27/04	2-Methylnaphthalene	3.00E-03 J	1.31	2.29E-01	38	64	mg/kg OC	<1	<1
LDWRI-Benthic	B3a	08/26/04	2-Methylnaphthalene	2.70E-03 J	1.36	1.99E-01	38	64	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-16	03/28/96	2-Methylnaphthalene	2.69E-03	2.99	9.00E-02	38	64	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-17	03/28/96	2-Methylnaphthalene	2.66E-03	2.66	1.00E-01	38	64	mg/kg OC	<1	<1
LDWRI-Benthic	C2-2	08/26/04	2-Methylnaphthalene	1.80E-03 J	1.06	1.70E-01	38	64	mg/kg OC	<1	<1
LDWRI-Benthic	C1[a]	08/26/04	2-Methylnaphthalene	1.70E-03 J	0.47		0.67	1.4	mg/kg DW	<1	<1
Puget Sound Sediment Quality/ NOAA Site Characterization	203	06/22/98	2-Methylphenanthrene	4.10E-02	1.5						
LDWRI-Surface Sediment Round 2	LDW-SS24	03/14/05	2-Methylphenol	3.20E-02	5.99		0.063	0.063	mg/kg DW	<1	<1
Ecology SPI	SPI-108	08/11/06	2-Methylphenol	2.30E-02	1.55		0.063	0.063	mg/kg DW	<1	<1
Ecology SPI	TRI-015T	08/08/06	2-Methylphenol	1.80E-02	2.16		0.063	0.063	mg/kg DW	<1	<1
Ecology SPI	TRI-010	08/08/06	2-Methylphenol	1.70E-02	2.2		0.063	0.063	mg/kg DW	<1	<1
Ecology SPI	TRI-016	08/08/06	2-Methylphenol	1.70E-02	2.38		0.063	0.063	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS312	10/03/06	2-Methylphenol	1.40E-02	4.2		0.063	0.063	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2149-A	04/20/11	2-Methylphenol	1.10E-02	9.22		0.063	0.063	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SSSWCSO-A	04/08/11	2-Methylphenol	6.90E-03	2.69		0.063	0.063	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SSSWCSO-U	04/08/11	2-Methylphenol	6.60E-03	1.2		0.063	0.063	mg/kg DW	<1	<1
Puget Sound Sediment Quality/ NOAA Site Characterization	203	06/22/98	4,4'-DDD	2.20E-03	1.5						
LDWRI-Benthic	C3-2	08/27/04	4,4'-DDD	9.60E-04 J	1.31						
LDWRI-Benthic	C2-1	08/26/04	4,4'-DDD	4.70E-04 J	1.82						
LDWRI-Benthic	B1a	08/13/04	4,4'-DDD	4.60E-04 JN	1.7						
LDWRI-Benthic	C2-2	08/26/04	4,4'-DDD	4.20E-04 J	1.06						
LDWRI-Benthic	B2a	08/13/04	4,4'-DDD	4.00E-04 JN	1.97						
LDWRI-Benthic	B3a	08/26/04	4,4'-DDD	3.10E-04 J	1.36						
LDWRI-Benthic	C3-1	08/27/04	4,4'-DDD	3.00E-04 J	0.93						
Puget Sound Sediment Quality/ NOAA Site Characterization	203	06/22/98	4,4'-DDE	3.70E-03	1.5						
LDWRI-Benthic	C3-2	08/27/04	4,4'-DDE	2.60E-03	1.31						
LDWRI-Benthic	C3-1	08/27/04	4,4'-DDE	1.10E-03 J	0.93						
LDWRI-Benthic	C2-1	08/26/04	4,4'-DDE	9.50E-04 J	1.82						
LDWRI-Benthic	B3a	08/26/04	4,4'-DDE	4.50E-04 J	1.36						
LDWRI-Benthic	C3-2	08/27/04	4,4'-DDT	7.90E-03	1.31						
LDWRI-Benthic	B2a	08/13/04	4,4'-DDT	5.50E-03 JN	1.97						
LDWRI-Benthic	C2-2	08/26/04	4,4'-DDT	3.30E-03	1.06						
LDWRI-Benthic	C3-1	08/27/04	4,4'-DDT	2.80E-03	0.93						
LDWRI-Benthic	C2-1	08/26/04	4,4'-DDT	1.90E-03	1.82						
LDWRI-Benthic	B3a	08/26/04	4,4'-DDT	1.60E-03	1.36						
LDWRI-Benthic	C1	08/26/04	4,4'-DDT	4.80E-04 J	0.47						
LDWRI-Surface Sediment Round 1	LDW-SS23	01/18/05	4-Bromophenyl phenyl ether	3.10E-02	1.23						
Terminal 105 Site Assessment	SS2	11/17/93	4-Chloro-3-methylphenol	1.00E+02 J	0.98						
Terminal 105 Site Assessment	SS3	11/17/93	4-Chloro-3-methylphenol	1.05E+00	0.13						
LDWRI-Benthic	C2-2	08/26/04	4-Methylphenol	1.60E-01	1.06		0.067	0.067	mg/kg DW	2.4	2.4

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
Ecology SPI	TRI-015T	08/08/06	4-Methylphenol	6.60E-02	2.16		0.067	0.067	mg/kg DW	<1	<1
Ecology SPI	TRI-016	08/08/06	4-Methylphenol	6.60E-02	2.38		0.067	0.067	mg/kg DW	<1	<1
LDWRI-Benthic	C2-1	08/26/04	4-Methylphenol	6.20E-02	1.82		0.067	0.067	mg/kg DW	<1	<1
Ecology SPI	TRI-010	08/08/06	4-Methylphenol	6.10E-02	2.2		0.067	0.067	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS24	03/14/05	4-Methylphenol	5.40E-02	5.99		0.067	0.067	mg/kg DW	<1	<1
Ecology SPI	SPI-108	08/11/06	4-Methylphenol	5.40E-02	1.55		0.067	0.067	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS312	10/03/06	4-Methylphenol	3.60E-02 J	4.2		0.067	0.067	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-8	03/28/96	4-Methylphenol	3.60E-02	1.78		0.067	0.067	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-16	03/28/96	4-Methylphenol	3.40E-02	2.99		0.067	0.067	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2149-A	04/20/11	4-Methylphenol	3.10E-02	9.22		0.067	0.067	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SSSWCSO-A	04/08/11	4-Methylphenol	3.10E-02	2.69		0.067	0.067	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-3	03/28/96	4-Methylphenol	2.90E-02	2.22		0.067	0.067	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SSSWCSO-U	04/08/11	4-Methylphenol	2.80E-02	1.2		0.067	0.067	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-4	03/28/96	4-Methylphenol	2.50E-02	1.85		0.067	0.067	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2157-A	03/24/11	4-Methylphenol	2.40E-02	1.81		0.067	0.067	mg/kg DW	<1	<1
LDWRI-Benthic	B3a	08/26/04	4-Methylphenol	2.20E-02	1.36		0.067	0.067	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2232-U	04/20/11	4-Methylphenol	2.00E-02	1.63		0.067	0.067	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2232-A	04/20/11	4-Methylphenol	1.30E-02 J	1.11		0.067	0.067	mg/kg DW	<1	<1
LDWRI-Benthic	C1	08/26/04	4-Methylphenol	8.70E-03 J	0.47		0.067	0.067	mg/kg DW	<1	<1
EPA Site Inspection	DR037	08/18/98	Acenaphthene	5.50E-01	2.02	2.72E+01	16	57	mg/kg OC	1.7	<1
EPA Site Inspection	DR038	09/02/98	Acenaphthene	3.30E-01	2.62	1.26E+01	16	57	mg/kg OC	<1	<1
EPA Site Inspection	DR033	08/11/98	Acenaphthene	3.10E-01	1.72	1.80E+01	16	57	mg/kg OC	1.1	<1
LDWRI-Surface Sediment Round 3	LDW-SS312[a]	10/03/06	Acenaphthene	1.70E-01	4.2		0.5	0.73	mg/kg DW	<1	<1
Terminal 105 Site Assessment	SS1	11/23/93	Acenaphthene	1.70E-01 J	1.9	8.95E+00	16	57	mg/kg OC	<1	<1
EPA Site Inspection	DR040[a]	08/12/98	Acenaphthene	1.60E-01	4.69	3.41E+00	0.5	0.73	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SSSWCSO-U	04/08/11	Acenaphthene	1.60E-01	1.2	1.33E+01	16	57	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS9	03/14/05	Acenaphthene	1.40E-01	1.79	7.82E+00	16	57	mg/kg OC	<1	<1
LDW Dioxin Sampling	LDW-SS509[a]	12/15/09	Acenaphthene	9.20E-02	7.08		0.5	0.73	mg/kg DW	<1	<1
EPA Site Inspection	DR067	08/18/98	Acenaphthene	8.00E-02	0.82	9.76E+00	16	57	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS36	01/24/05	Acenaphthene	6.90E-02 J	1.89	3.65E+00	16	57	mg/kg OC	<1	<1
EPA Site Inspection	DR031	08/11/98	Acenaphthene	6.00E-02	2.07	2.90E+00	16	57	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS24[a]	03/14/05	Acenaphthene	6.00E-02	5.99		0.5	0.73	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS16	03/08/05	Acenaphthene	5.40E-02 J	2.11	2.56E+00	16	57	mg/kg OC	<1	<1
EPA Site Inspection	DR044	08/12/98	Acenaphthene	5.00E-02	2.08	2.40E+00	16	57	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2157-A	03/24/11	Acenaphthene	4.70E-02	1.81	2.60E+00	16	57	mg/kg OC	<1	<1
Ecology SPI	TRI-015T	08/08/06	Acenaphthene	3.90E-02	2.16	1.81E+00	16	57	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS19	03/08/05	Acenaphthene	3.60E-02 J	2.07	1.74E+00	16	57	mg/kg OC	<1	<1
Ecology SPI	TRI-010	08/08/06	Acenaphthene	3.50E-02	2.2	1.59E+00	16	57	mg/kg OC	<1	<1
EPA Site Inspection	DR034	08/11/98	Acenaphthene	3.00E-02	1.84	1.63E+00	16	57	mg/kg OC	<1	<1
EPA Site Inspection	DR035	08/11/98	Acenaphthene	3.00E-02	2.29	1.31E+00	16	57	mg/kg OC	<1	<1
EPA Site Inspection	DR068	08/18/98	Acenaphthene	3.00E-02	2.36	1.27E+00	16	57	mg/kg OC	<1	<1
Ecology SPI	TRI-016	08/08/06	Acenaphthene	2.80E-02	2.38	1.18E+00	16	57	mg/kg OC	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
Puget Sound Sediment Quality/ NOAA Site Characterization	203	06/22/98	Acenaphthene	2.50E-02	1.5	1.67E+00	16	57	mg/kg OC	<1	<1
EPA Site Inspection	DR032	08/11/98	Acenaphthene	2.00E-02	1.79	1.12E+00	16	57	mg/kg OC	<1	<1
EPA Site Inspection	DR047	09/14/98	Acenaphthene	2.00E-02	1.4	1.43E+00	16	57	mg/kg OC	<1	<1
EPA Site Inspection	DR066	08/18/98	Acenaphthene	2.00E-02	2.25	8.89E-01	16	57	mg/kg OC	<1	<1
EPA Site Inspection	DR077	08/24/98	Acenaphthene	2.00E-02	1.61	1.24E+00	16	57	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SSSWCSO-A	04/08/11	Acenaphthene	1.90E-02 J	2.69	7.06E-01	16	57	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2150-A[a]	04/20/11	Acenaphthene	1.80E-02	5.62		0.5	0.73	mg/kg DW	<1	<1
Ecology SPI	SPI-108	08/11/06	Acenaphthene	1.80E-02	1.55	1.16E+00	16	57	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2150-A[a]	04/20/11	Acenaphthene	1.70E-02 J	9.22		0.5	0.73	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS3	03/09/05	Acenaphthene	1.60E-02 J	0.723	2.21E+00	16	57	mg/kg OC	<1	<1
LDWRI-Benthic	C2-1	08/26/04	Acenaphthene	1.50E-02	1.82	8.24E-01	16	57	mg/kg OC	<1	<1
LDWRI-Benthic	B2a	08/13/04	Acenaphthene	1.30E-02	1.97	6.60E-01	16	57	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2232-A	04/20/11	Acenaphthene	1.20E-02 J	1.11	1.08E+00	16	57	mg/kg OC	<1	<1
LDWRI-Benthic	B1a	08/13/04	Acenaphthene	1.10E-02	1.7	6.47E-01	16	57	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2233-D	04/20/11	Acenaphthene	1.10E-02 J	0.617	1.78E+00	16	57	mg/kg OC	<1	<1
LDWRI-Benthic	C3-2	08/27/04	Acenaphthene	3.70E-03 J	1.31	2.82E-01	16	57	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-4	03/28/96	Acenaphthene	3.33E-03	1.85	1.80E-01	16	57	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-17	03/28/96	Acenaphthene	2.39E-03	2.66	8.98E-02	16	57	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-5	03/28/96	Acenaphthene	2.25E-03	2.05	1.10E-01	16	57	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-18	03/28/96	Acenaphthene	2.17E-03	3.11	6.98E-02	16	57	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-20	03/28/96	Acenaphthene	1.92E-03	1.13	1.70E-01	16	57	mg/kg OC	<1	<1
LDWRI-Benthic	B3a	08/26/04	Acenaphthene	1.50E-03 J	1.36	1.10E-01	16	57	mg/kg OC	<1	<1
LDWRI-Benthic	C1[a]	08/26/04	Acenaphthene	1.40E-03 J	0.47		0.5	0.73	mg/kg DW	<1	<1
LDWRI-Benthic	C3-1	08/27/04	Acenaphthene	1.40E-03 J	0.93	1.51E-01	16	57	mg/kg OC	<1	<1
LDWRI-Benthic	C2-2	08/26/04	Acenaphthene	1.10E-03 J	1.06	1.04E-01	16	57	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS312[a]	10/03/06	Acenaphthylene	5.00E-01	4.2		1.3	1.3	mg/kg DW	<1	<1
LDW Dioxin Sampling	LDW-SS509[a]	12/15/09	Acenaphthylene	2.90E-01	7.08		1.3	1.3	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS24[a]	03/14/05	Acenaphthylene	2.40E-01	5.99		1.3	1.3	mg/kg DW	<1	<1
Ecology SPI	TRI-015T	08/08/06	Acenaphthylene	1.65E-01	2.16	7.64E+00	66	66	mg/kg OC	<1	<1
Ecology SPI	TRI-010	08/08/06	Acenaphthylene	1.50E-01	2.2	6.82E+00	66	66	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS9	03/14/05	Acenaphthylene	1.40E-01	1.79	7.82E+00	66	66	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS311[a]	10/03/06	Acenaphthylene	1.30E-01	4.36		1.3	1.3	mg/kg DW	<1	<1
EPA Site Inspection	DR044	08/12/98	Acenaphthylene	1.00E-01	2.08	4.81E+00	66	66	mg/kg OC	<1	<1
Ecology SPI	TRI-016	08/08/06	Acenaphthylene	9.80E-02	2.38	4.12E+00	66	66	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS36	01/24/05	Acenaphthylene	8.80E-02 J	1.89	4.66E+00	66	66	mg/kg OC	<1	<1
Ecology SPI	SPI-108	08/11/06	Acenaphthylene	8.20E-02	1.55	5.29E+00	66	66	mg/kg OC	<1	<1
EPA Site Inspection	DR033	08/11/98	Acenaphthylene	6.00E-02	1.72	3.49E+00	66	66	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS19	03/08/05	Acenaphthylene	4.10E-02 J	2.07	1.98E+00	66	66	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2232-A	04/20/11	Acenaphthylene	4.10E-02	1.11	3.69E+00	66	66	mg/kg OC	<1	<1
EPA Site Inspection	DR038	09/02/98	Acenaphthylene	4.00E-02	2.62	1.53E+00	66	66	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS310	10/03/06	Acenaphthylene	3.80E-02 J	1.63	2.33E+00	66	66	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS16	03/08/05	Acenaphthylene	3.60E-02 J	2.11	1.71E+00	66	66	mg/kg OC	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
LDWRI-Benthic	C2-1	08/26/04	Acenaphthylene	3.10E-02	1.82	1.70E+00	66	66	mg/kg OC	<1	<1
EPA Site Inspection	DR035	08/11/98	Acenaphthylene	3.00E-02	2.29	1.31E+00	66	66	mg/kg OC	<1	<1
EPA Site Inspection	DR037	08/18/98	Acenaphthylene	3.00E-02	2.02	1.49E+00	66	66	mg/kg OC	<1	<1
EPA Site Inspection	DR040[a]	08/12/98	Acenaphthylene	3.00E-02	4.69	6.40E-01	1.3	1.3	mg/kg DW	<1	<1
EPA Site Inspection	DR047	09/14/98	Acenaphthylene	3.00E-02	1.4	2.14E+00	66	66	mg/kg OC	<1	<1
Puget Sound Sediment Quality/ NOAA Site Characterization	203	06/22/98	Acenaphthylene	2.70E-02	1.5	1.80E+00	66	66	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SSSWCSO-U	04/08/11	Acenaphthylene	2.70E-02 J	1.2	2.25E+00	66	66	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SSSWCSO-A	04/08/11	Acenaphthylene	2.60E-02 J	2.69	9.67E-01	66	66	mg/kg OC	<1	<1
Terminal 105 Site Assessment	SS3[a]	11/17/93	Acenaphthylene	2.40E-02 J	0.13		1.3	1.3	mg/kg DW	<1	<1
LDWRI-Benthic	B2a	08/13/04	Acenaphthylene	2.30E-02	1.97	1.17E+00	66	66	mg/kg OC	<1	<1
Terminal 105 Site Assessment	SS2	11/17/93	Acenaphthylene	2.00E-02 J	0.98	2.04E+00	66	66	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2150-A[a]	04/20/11	Acenaphthylene	1.90E-02	9.22		1.3	1.3	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS3	03/09/05	Acenaphthylene	1.50E-02 J	0.723	2.07E+00	66	66	mg/kg OC	<1	<1
LDWRI-Benthic	B1a	08/13/04	Acenaphthylene	1.20E-02	1.7	7.06E-01	66	66	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2232-U	04/20/11	Acenaphthylene	1.00E-02 J	1.63	6.13E-01	66	66	mg/kg OC	<1	<1
LDWRI-Benthic	C3-1	08/27/04	Acenaphthylene	9.90E-03	0.93	1.06E+00	66	66	mg/kg OC	<1	<1
LDWRI-Benthic	C3-2	08/27/04	Acenaphthylene	8.90E-03	1.31	6.79E-01	66	66	mg/kg OC	<1	<1
LDWRI-Benthic	B3a	08/26/04	Acenaphthylene	4.20E-03 J	1.36	3.09E-01	66	66	mg/kg OC	<1	<1
LDWRI-Benthic	C1[a]	08/26/04	Acenaphthylene	4.00E-03 J	0.47		1.3	1.3	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-17	03/28/96	Acenaphthylene	3.72E-03	2.66	1.40E-01	66	66	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-4	03/28/96	Acenaphthylene	2.22E-03	1.85	1.20E-01	66	66	mg/kg OC	<1	<1
LDWRI-Benthic	C2-2	08/26/04	Acenaphthylene	1.30E-03 J	1.06	1.23E-01	66	66	mg/kg OC	<1	<1
EPA Site Inspection	DR047	09/14/98	Acetone	1.02E+00 J	1.4						
Terminal 105 Site Assessment	SS1	11/23/93	Acetone	1.40E-01	1.9						
Terminal 105 Site Assessment	SS2	11/17/93	Acetone	3.10E-03 J	0.98						
LDWRI-Benthic	B2a	08/13/04	alpha-Chlordane	2.40E-04 JN	1.97						
LDWRI-Benthic	C2-2	08/26/04	alpha-Endosulfan	6.30E-04 J	1.06						
LDWRI-Benthic	C3-1	08/27/04	alpha-Endosulfan	2.60E-04 J	0.93						
LDWRI-Benthic	C2-1	08/26/04	alpha-Endosulfan	2.40E-04 J	1.82						
KC CSO Water Quality Assessment	WQAKELL	03/12/97	Aluminum	3.48E+04	2.09						
KC CSO Water Quality Assessment	WQAKELL	03/06/97	Aluminum	3.31E+04	2.27						
KC CSO Water Quality Assessment	WQAKELL	04/08/97	Aluminum	2.90E+04 J	2.03						
KC CSO Water Quality Assessment	WQAKELL	05/01/97	Aluminum	2.90E+04 J	2.04						
KC CSO Water Quality Assessment	WQAKELL	04/03/97	Aluminum	2.80E+04 J	2.17						
EPA Site Inspection	DR078	08/24/98	Aluminum	2.71E+04	2.07						
KC CSO Water Quality Assessment	WQAKELL	04/24/97	Aluminum	2.70E+04 J	2.06						
EPA Site Inspection	DR037	08/18/98	Aluminum	2.64E+04	2.02						
KC CSO Water Quality Assessment	WQAKELL	03/27/97	Aluminum	2.60E+04 J	2.05						
KC CSO Water Quality Assessment	WQAKELL	04/17/97	Aluminum	2.60E+04 J	2.07						
KC CSO Water Quality Assessment	WQAKELL	05/08/97	Aluminum	2.60E+04 J	2.19						
EPA Site Inspection	DR079	08/24/98	Aluminum	2.50E+04	2.18						
EPA Site Inspection	DR080	08/24/98	Aluminum	2.50E+04	1.82						

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
EPA Site Inspection	DR068	08/18/98	Aluminum	2.44E+04	2.36						
EPA Site Inspection	DR069	08/18/98	Aluminum	2.33E+04	1.92						
EPA Site Inspection	DR039	08/12/98	Aluminum	2.32E+04	2.43						
EPA Site Inspection	DR041	08/12/98	Aluminum	2.29E+04	2.43						
EPA Site Inspection	DR066	08/18/98	Aluminum	2.28E+04	2.25						
EPA Site Inspection	DR077	08/24/98	Aluminum	2.21E+04	1.61						
EPA Site Inspection	DR044	08/12/98	Aluminum	2.10E+04	2.22						
EPA Site Inspection	DR044	08/12/98	Aluminum	2.09E+04	2.68						
EPA Site Inspection	DR048	08/12/98	Aluminum	2.05E+04	2.03						
EPA Site Inspection	DR035	08/11/98	Aluminum	2.00E+04	2.29						
EPA Site Inspection	DR034	08/11/98	Aluminum	1.92E+04	1.84						
EPA Site Inspection	DR042	08/12/98	Aluminum	1.89E+04	9.23						
EPA Site Inspection	DR040	08/12/98	Aluminum	1.84E+04	4.69						
Puget Sound Sediment Quality/ NOAA Site Characterization	203	06/22/98	Aluminum	1.68E+04	1.5						
EPA Site Inspection	DR070	08/12/98	Aluminum	1.58E+04	1.75						
EPA Site Inspection	DR032	08/11/98	Aluminum	1.52E+04	1.79						
EPA Site Inspection	DR033	08/11/98	Aluminum	1.40E+04	1.72						
EPA Site Inspection	DR047	09/14/98	Aluminum	1.40E+04	1.4						
EPA Site Inspection	DR044	08/12/98	Aluminum	1.38E+04	2.08						
EPA Site Inspection	DR045	09/14/98	Aluminum	1.37E+04	2.92						
EPA Site Inspection	DR043	08/12/98	Aluminum	1.35E+04	4.48						
EPA Site Inspection	DR046	08/12/98	Aluminum	1.33E+04	2.26						
EPA Site Inspection	DR031	08/11/98	Aluminum	1.06E+04	2.07						
EPA Site Inspection	DR067	08/18/98	Aluminum	9.93E+03	0.82						
EPA Site Inspection	DR036	08/12/98	Aluminum	9.64E+03	3.37						
EPA Site Inspection	DR076	08/24/98	Aluminum	5.81E+03	0.1						
EPA Site Inspection	DR038	09/02/98	Aluminum	2.80E+03	2.62						
EPA Site Inspection	DR038	09/02/98	Anthracene	1.60E+00	2.62	6.11E+01	220	1,200	mg/kg OC	<1	<1
EPA Site Inspection	DR033	08/11/98	Anthracene	1.50E+00	1.72	8.72E+01	220	1,200	mg/kg OC	<1	<1
EPA Site Inspection	DR037	08/18/98	Anthracene	1.20E+00	2.02	5.94E+01	220	1,200	mg/kg OC	<1	<1
LDW Dioxin Sampling	LDW-SS509[a]	12/15/09	Anthracene	7.40E-01	7.08		0.96	4.4	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS24[a]	03/14/05	Anthracene	7.30E-01	5.99		0.96	4.4	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS312[a]	10/03/06	Anthracene	7.10E-01	4.2		0.96	4.4	mg/kg DW	<1	<1
EPA Site Inspection	DR047	09/14/98	Anthracene	5.10E-01	1.4	3.64E+01	220	1,200	mg/kg OC	<1	<1
Terminal 105 Site Assessment	SS1	11/23/93	Anthracene	5.00E-01 J	1.9	2.63E+01	220	1,200	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SSSWCSO-U	04/08/11	Anthracene	4.40E-01	1.2	3.67E+01	220	1,200	mg/kg OC	<1	<1
EPA Site Inspection	DR044	08/12/98	Anthracene	4.20E-01	2.08	2.02E+01	220	1,200	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS9	03/14/05	Anthracene	4.20E-01	1.79	2.35E+01	220	1,200	mg/kg OC	<1	<1
EPA Site Inspection	DR040[a]	08/12/98	Anthracene	4.10E-01	4.69		0.96	4.4	mg/kg DW	<1	<1
Ecology SPI	TRI-015T	08/08/06	Anthracene	3.78E-01	2.16	1.75E+01	220	1,200	mg/kg OC	<1	<1
EPA Site Inspection	DR031	08/11/98	Anthracene	3.50E-01	2.07	1.69E+01	220	1,200	mg/kg OC	<1	<1
Ecology SPI	TRI-010	08/08/06	Anthracene	3.36E-01	2.2	1.53E+01	220	1,200	mg/kg OC	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
EPA Site Inspection	DR067	08/18/98	Anthracene	2.90E-01	0.82	3.54E+01	220	1,200	mg/kg OC	<1	<1
EPA Site Inspection	DR048	08/12/98	Anthracene	2.60E-01	2.03	1.28E+01	220	1,200	mg/kg OC	<1	<1
Ecology SPI	SPI-108	08/11/06	Anthracene	2.12E-01	1.55	1.37E+01	220	1,200	mg/kg OC	<1	<1
Ecology SPI	TRI-016	08/08/06	Anthracene	2.09E-01	2.38	8.78E+00	220	1,200	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS311[a]	10/03/06	Anthracene	2.00E-01	4.36		0.96	4.4	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS310	10/03/06	Anthracene	1.70E-01	1.63	1.04E+01	220	1,200	mg/kg OC	<1	<1
Terminal 105 Site Assessment	SS2	11/17/93	Anthracene	1.60E-01 J	0.98	1.63E+01	220	1,200	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-17	03/28/96	Anthracene	1.54E-01	2.66	5.80E+00	220	1,200	mg/kg OC	<1	<1
EPA Site Inspection	DR068	08/18/98	Anthracene	1.50E-01	2.36	6.36E+00	220	1,200	mg/kg OC	<1	<1
EPA Site Inspection	DR066	08/18/98	Anthracene	1.40E-01	2.25	6.22E+00	220	1,200	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS36	01/24/05	Anthracene	1.40E-01	1.89	7.41E+00	220	1,200	mg/kg OC	<1	<1
EPA Site Inspection	DR041	08/12/98	Anthracene	1.30E-01	2.43	5.35E+00	220	1,200	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS16	03/08/05	Anthracene	1.30E-01	2.11	6.16E+00	220	1,200	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS19	03/08/05	Anthracene	1.30E-01	2.07	6.28E+00	220	1,200	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS309	10/03/06	Anthracene	1.30E-01	2.02	6.44E+00	220	1,200	mg/kg OC	<1	<1
Puget Sound Sediment Quality/ NOAA Site Characterization	203	06/22/98	Anthracene	1.21E-01	1.5	8.07E+00	220	1,200	mg/kg OC	<1	<1
EPA Site Inspection	DR032	08/11/98	Anthracene	1.20E-01	1.79	6.70E+00	220	1,200	mg/kg OC	<1	<1
EPA Site Inspection	DR034	08/11/98	Anthracene	1.20E-01	1.84	6.52E+00	220	1,200	mg/kg OC	<1	<1
Harbor Island RI	K-05	09/27/91	Anthracene	1.20E-01 J	1.6	7.50E+00	220	1,200	mg/kg OC	<1	<1
EPA Site Inspection	DR035	08/11/98	Anthracene	1.10E-01	2.29	4.80E+00	220	1,200	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2150-A[a]	04/20/11	Anthracene	1.10E-01	5.62		0.96	4.4	mg/kg DW	<1	<1
EPA Site Inspection	DR069	08/18/98	Anthracene	1.00E-01	1.92	5.21E+00	220	1,200	mg/kg OC	<1	<1
EPA Site Inspection	DR077	08/24/98	Anthracene	1.00E-01	1.61	6.21E+00	220	1,200	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2157-A	03/24/11	Anthracene	1.00E-01	1.81	5.52E+00	220	1,200	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS308	10/03/06	Anthracene	1.00E-01	1.86	5.38E+00	220	1,200	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SSSWCSO-A	04/08/11	Anthracene	9.10E-02	2.69	3.38E+00	220	1,200	mg/kg OC	<1	<1
EPA Site Inspection	DR039	08/12/98	Anthracene	9.00E-02	2.43	3.70E+00	220	1,200	mg/kg OC	<1	<1
EPA Site Inspection	DR078	08/24/98	Anthracene	9.00E-02	2.07	4.35E+00	220	1,200	mg/kg OC	<1	<1
EPA Site Inspection	DR079	08/24/98	Anthracene	9.00E-02	2.18	4.13E+00	220	1,200	mg/kg OC	<1	<1
LDWRI-Benthic	C2-1	08/26/04	Anthracene	7.80E-02	1.82	4.29E+00	220	1,200	mg/kg OC	<1	<1
LDWRI-Benthic	B2a	08/13/04	Anthracene	7.40E-02	1.97	3.76E+00	220	1,200	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-1	09/24/97	Anthracene	6.20E-02 J	2.59	2.39E+00	220	1,200	mg/kg OC	<1	<1
EPA Site Inspection	DR070	08/12/98	Anthracene	6.00E-02	1.75	3.43E+00	220	1,200	mg/kg OC	<1	<1
EPA Site Inspection	DR080	08/24/98	Anthracene	6.00E-02	1.82	3.30E+00	220	1,200	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	03/06/97	Anthracene	5.30E-02 J	2.09	2.54E+00	220	1,200	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	03/12/97	Anthracene	5.30E-02 J	2.27	2.33E+00	220	1,200	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-1	09/24/97	Anthracene	5.20E-02 J	2.44	2.13E+00	220	1,200	mg/kg OC	<1	<1
EPA Site Inspection	DR042[a]	08/12/98	Anthracene	5.00E-02	9.23	5.42E-01	0.96	4.4	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS15	01/17/05	Anthracene	4.90E-02	1.79	2.74E+00	220	1,200	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS3	03/09/05	Anthracene	4.80E-02	0.723	6.64E+00	220	1,200	mg/kg OC	<1	<1
Terminal 105 Site Assessment	SS3[a]	11/17/93	Anthracene	4.70E-02 J	0.13		0.96	4.4	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2150-A[a]	04/20/11	Anthracene	4.40E-02	9.22		0.96	4.4	mg/kg DW	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
KC CSO Water Quality Assessment	WQAKELL	04/17/97	Anthracene	4.30E-02 J	2.07	2.08E+00	220	1,200	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-1	09/24/97	Anthracene	4.20E-02 J	2.29	1.83E+00	220	1,200	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2150-A[a]	04/20/11	Anthracene	4.20E-02	4.42		0.96	4.4	mg/kg DW	<1	<1
EPA Site Inspection	DR046	08/12/98	Anthracene	4.00E-02	2.26	1.77E+00	220	1,200	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-3	09/24/97	Anthracene	4.00E-02 J	2.24	1.79E+00	220	1,200	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-2	09/24/97	Anthracene	3.90E-02 J	2.09	1.87E+00	220	1,200	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-2	09/24/97	Anthracene	3.80E-02 J	2.06	1.84E+00	220	1,200	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-2	09/24/97	Anthracene	3.70E-02 J	2.03	1.82E+00	220	1,200	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS12	01/17/05	Anthracene	3.60E-02	1.88	1.91E+00	220	1,200	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	05/01/97	Anthracene	3.60E-02 J	2.03	1.77E+00	220	1,200	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS313	10/04/06	Anthracene	3.30E-02 J	1.95	1.69E+00	220	1,200	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS29	03/14/05	Anthracene	3.20E-02	1.68	1.90E+00	220	1,200	mg/kg OC	<1	<1
EPA Site Inspection	DR043[a]	08/12/98	Anthracene	3.00E-02	4.48	6.70E-01	0.96	4.4	mg/kg DW	<1	<1
EPA Site Inspection	DR044	08/12/98	Anthracene	3.00E-02	2.22	1.35E+00	220	1,200	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS10	01/17/05	Anthracene	2.90E-02	1.63	1.78E+00	220	1,200	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-3	09/24/97	Anthracene	2.85E-02 J	2.145	1.33E+00	220	1,200	mg/kg OC	<1	<1
LDWRI-Benthic	B1a	08/13/04	Anthracene	2.80E-02	1.7	1.65E+00	220	1,200	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2232-A	04/20/11	Anthracene	2.30E-02	1.11	2.07E+00	220	1,200	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2233-D	04/20/11	Anthracene	2.30E-02	0.617	3.73E+00	220	1,200	mg/kg OC	<1	<1
EPA Site Inspection	DR036	08/12/98	Anthracene	2.00E-02	3.37	5.93E-01	220	1,200	mg/kg OC	<1	<1
EPA Site Inspection	DR044	08/12/98	Anthracene	2.00E-02	2.68	7.46E-01	220	1,200	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2232-U	04/20/11	Anthracene	2.00E-02	1.63	1.23E+00	220	1,200	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS34	03/14/05	Anthracene	2.00E-02	1.52	1.32E+00	220	1,200	mg/kg OC	<1	<1
LDWRI-Benthic	C3-2	08/27/04	Anthracene	1.90E-02	1.31	1.45E+00	220	1,200	mg/kg OC	<1	<1
LDWRI-Benthic	C3-1	08/27/04	Anthracene	1.50E-02	0.93	1.61E+00	220	1,200	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-4	03/28/96	Anthracene	1.48E-02	1.85	8.00E-01	220	1,200	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2147-D	03/14/11	Anthracene	1.30E-02 J	0.782	1.66E+00	220	1,200	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2144-A	03/14/11	Anthracene	1.20E-02 J	0.849	1.41E+00	220	1,200	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-3	03/28/96	Anthracene	1.02E-02	2.22	4.60E-01	220	1,200	mg/kg OC	<1	<1
LDWRI-Benthic	B3a	08/26/04	Anthracene	9.20E-03	1.36	6.76E-01	220	1,200	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-16	03/28/96	Anthracene	8.67E-03	2.99	2.90E-01	220	1,200	mg/kg OC	<1	<1
LDWRI-Benthic	C1[a]	08/26/04	Anthracene	8.20E-03	0.47		0.96	4.4	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-5	03/28/96	Anthracene	7.99E-03	2.05	3.90E-01	220	1,200	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-18	03/28/96	Anthracene	7.77E-03	3.11	2.50E-01	220	1,200	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-10	03/28/96	Anthracene	7.19E-03	2.57	2.80E-01	220	1,200	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-7	03/28/96	Anthracene	6.16E-03	1.76	3.50E-01	220	1,200	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-1	03/28/96	Anthracene	6.12E-03	3.4	1.80E-01	220	1,200	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-9	03/28/96	Anthracene	5.54E-03	1.68	3.30E-01	220	1,200	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-20	03/28/96	Anthracene	5.19E-03	1.13	4.59E-01	220	1,200	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-2	03/28/96	Anthracene	5.04E-03	1.74	2.90E-01	220	1,200	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-15	03/28/96	Anthracene	4.96E-03	1.46	3.40E-01	220	1,200	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-12	03/28/96	Anthracene	4.86E-03	2.43	2.00E-01	220	1,200	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-11	03/28/96	Anthracene	4.59E-03	2.7	1.70E-01	220	1,200	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-8	03/28/96	Anthracene	4.27E-03	1.78	2.40E-01	220	1,200	mg/kg OC	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
Seaboard Lumber-Phase 2 Investigation	SD-6	03/28/96	Anthracene	4.11E-03	1.79	2.30E-01	220	1,200	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-6	03/28/96	Anthracene	4.10E-03	1.79	2.29E-01	220	1,200	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-13	03/28/96	Anthracene	3.96E-03	2.64	1.50E-01	220	1,200	mg/kg OC	<1	<1
LDWRI-Benthic	C2-2	08/26/04	Anthracene	3.60E-03 J	1.06	3.40E-01	220	1,200	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-19	03/28/96	Anthracene	2.75E-03	2.75	1.00E-01	220	1,200	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-14	03/28/96	Anthracene	2.01E-03	1.68	1.20E-01	220	1,200	mg/kg OC	<1	<1
EPA Site Inspection	DR068	08/18/98	Antimony	1.10E+01 J							
Terminal 105 Site Assessment	SS1	11/23/93	Antimony	1.00E+01 T	1.9						
EPA Site Inspection	DR047	09/14/98	Antimony	6.00E+00 J	1.4						
EPA Site Inspection	DR068	08/18/98	Antimony	6.00E+00 J							
EPA Site Inspection	DR066	08/18/98	Antimony	5.00E+00 J							
KC CSO Water Quality Assessment	WQAKELL	03/06/97	Antimony	4.20E+00 J	2.27						
KC CSO Water Quality Assessment	KI-2	09/24/97	Antimony	4.10E+00 J	2.09						
KC CSO Water Quality Assessment	KI-1	09/24/97	Antimony	4.00E+00 J	2.29						
KC CSO Water Quality Assessment	WQAKELL	04/17/97	Antimony	4.00E+00 J	2.07						
KC CSO Water Quality Assessment	KI-3	09/24/97	Antimony	3.80E+00 J	2.05						
KC CSO Water Quality Assessment	KI-3	09/24/97	Antimony	3.75E+00 J	2.145						
KC CSO Water Quality Assessment	KI-3	09/24/97	Antimony	3.70E+00 J	2.24						
KC CSO Water Quality Assessment	KI-2	09/24/97	Antimony	2.85E+00 J	2.06						
KC CSO Water Quality Assessment	KI-1	09/24/97	Antimony	2.78E+00 J	2.44						
LDWRI-Benthic	C3-1	08/27/04	Antimony	2.28E+00 J	0.93						
LDWRI-Benthic	C3-2	08/27/04	Antimony	1.08E+00 J	1.31						
LDWRI-Benthic	B1a	08/13/04	Antimony	1.05E+00 J	1.7						
LDWRI-Benthic	C2-1	08/26/04	Antimony	7.60E-01 J	1.82						
LDWRI-Surface Sediment Round 2	LDW-SS3	03/09/05	Antimony	7.00E-01 J	0.723						
LDWRI-Benthic	B2a	08/13/04	Antimony	5.70E-01 J	1.97						
LDWRI-Surface Sediment Round 2	LDW-SS24	03/14/05	Antimony	5.00E-01	5.99						
LDWRI-Surface Sediment Round 3	LDW-SS306	10/03/06	Antimony	4.00E-01 J	0.284						
Puget Sound Sediment Quality/ NOAA Site Characterization	203	06/22/98	Antimony	2.50E-01 J	1.5						
LDWRI-Benthic	C1	08/26/04	Antimony	2.10E-01 J	0.47						
LDWRI-Benthic	B3a	08/26/04	Antimony	1.60E-01 J	1.36						
LDWRI-Benthic	C2-2	08/26/04	Antimony	1.50E-01 J	1.06						
EPA Site Inspection	DR044	08/12/98	Aroclor 1242	2.72E-01	2.22						
LDWRI-Surface Sediment Round 2	LDW-SS16	03/08/05	Aroclor 1242	5.80E-02	2.11						
EPA Site Inspection	DR038	09/02/98	Aroclor 1242	5.20E-02	2.62						
LDWRI-Surface Sediment Round 2	LDW-SS19	03/08/05	Aroclor 1242	4.30E-02	2.07						
EPA Site Inspection	DR044	08/12/98	Aroclor 1242	2.60E-02	2.68						
Ecology SPI	SPI-108	08/11/06	Aroclor 1242	2.50E-02 J	1.55						
Ecology SPI	TRI-015T	08/08/06	Aroclor 1242	2.40E-02 J	2.16						
EPA Site Inspection	DR079	08/24/98	Aroclor 1242	2.00E-02	2.18						
Ecology SPI	TRI-016	08/08/06	Aroclor 1242	1.90E-02 J	2.38						
Ecology SPI	TRI-010	08/08/06	Aroclor 1242	1.50E-02 J	2.2						
LDWRI-Surface Sediment Round 3	LDW-SS312	10/03/06	Aroclor 1248	2.40E-01	4.2						

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
LDWRI-Surface Sediment Round 3	LDW-SS310	10/03/06	Aroclor 1248	7.70E-02	1.63						
LDWRI-Surface Sediment Round 3	LDW-SS308	10/03/06	Aroclor 1248	6.90E-02	1.86						
LDWRI-Surface Sediment Round 3	LDW-SS309	10/03/06	Aroclor 1248	6.90E-02	2.02						
LDWRI-Surface Sediment Round 3	LDW-SS315	10/04/06	Aroclor 1248	5.30E-02	1.74						
LDWRI-Surface Sediment Round 1	LDW-SS12	01/17/05	Aroclor 1248	4.50E-02 J	1.88						
LDWRI-Surface Sediment Round 1	LDW-SS15	01/17/05	Aroclor 1248	3.50E-02 J	1.79						
LDW Outfall Sampling	LDW-SSSWCSO-A	04/08/11	Aroclor 1248	3.30E-02	2.69						
LDWRI-Surface Sediment Round 1	LDW-SS14	01/17/05	Aroclor 1248	3.00E-02 J	0.79						
LDWRI-Surface Sediment Round 1	LDW-SS28	01/24/05	Aroclor 1248	2.90E-02	1.22						
LDW Outfall Sampling	LDW-SSSWCSO-U	04/08/11	Aroclor 1248	2.90E-02	1.2						
LDWRI-Surface Sediment Round 2	LDW-SS3	03/09/05	Aroclor 1248	2.30E-02	0.723						
LDW Outfall Sampling	LDW-SS2157-A	03/24/11	Aroclor 1248	2.10E-02	1.81						
LDW Outfall Sampling	LDW-SS2147-D	03/14/11	Aroclor 1248	1.60E-02	0.782						
LDW Outfall Sampling	LDW-SS2146-A	03/14/11	Aroclor 1248	1.40E-02	1.01						
LDW Outfall Sampling	LDW-SS2144-A	03/14/11	Aroclor 1248	1.30E-02	0.849						
LDW Outfall Sampling	LDW-SS2232-A	04/20/11	Aroclor 1248	1.10E-02	1.11						
LDWRI-Surface Sediment Round 3	LDW-SS313	10/04/06	Aroclor 1248	1.10E-02 J	1.95						
LDW Outfall Sampling	LDW-SS2232-D	04/20/11	Aroclor 1248	5.90E-03	0.778						
LDW Outfall Sampling	LDW-SS2232-U	04/20/11	Aroclor 1248	5.40E-03	1.63						
EPA Site Inspection	DR044	08/12/98	Aroclor 1254	1.10E+00	2.22						
LDWRI-Surface Sediment Round 3	LDW-SS312	10/03/06	Aroclor 1254	5.30E-01	4.2						
LDW Dioxin Sampling	LDW-SS509	12/15/09	Aroclor 1254	4.10E-01	7.08						
EPA Site Inspection	DR035	08/11/98	Aroclor 1254	3.02E-01	2.29						
EPA Site Inspection	DR031	08/11/98	Aroclor 1254	2.40E-01	2.07						
EPA Site Inspection	DR034	08/11/98	Aroclor 1254	1.96E-01	1.84						
LDWRI-Surface Sediment Round 2	LDW-SS24	03/14/05	Aroclor 1254	1.90E-01	5.99						
LDWRI-Surface Sediment Round 3	LDW-SS311	10/03/06	Aroclor 1254	1.90E-01	4.36						
LDWRI-Surface Sediment Round 3	LDW-SS310	10/03/06	Aroclor 1254	1.70E-01	1.63						
EPA Site Inspection	DR043	08/12/98	Aroclor 1254	1.66E-01	4.48						
LDWRI-Surface Sediment Round 3	LDW-SS309	10/03/06	Aroclor 1254	1.60E-01	2.02						
LDWRI-Surface Sediment Round 2	LDW-SS16	03/08/05	Aroclor 1254	1.50E-01	2.11						
EPA Site Inspection	DR038	09/02/98	Aroclor 1254	1.46E-01	2.62						
EPA Site Inspection	DR033	08/11/98	Aroclor 1254	1.40E-01	1.72						
EPA Site Inspection	DR044	08/12/98	Aroclor 1254	1.30E-01	2.68						
LDWRI-Surface Sediment Round 3	LDW-SS308	10/03/06	Aroclor 1254	1.10E-01	1.86						
Ecology SPI	TRI-015T	08/08/06	Aroclor 1254	1.10E-01 J	2.16						
Ecology SPI	TRI-016	08/08/06	Aroclor 1254	1.00E-01 J	2.38						
LDWRI-Surface Sediment Round 2	LDW-SS19	03/08/05	Aroclor 1254	9.80E-02	2.07						
EPA Site Inspection	DR047	09/14/98	Aroclor 1254	9.60E-02	1.4						
LDW Outfall Sampling	LDW-SS2149-A	04/20/11	Aroclor 1254	9.60E-02	9.22						
EPA Site Inspection	DR041	08/12/98	Aroclor 1254	9.40E-02	2.43						
EPA Site Inspection	DR079	08/24/98	Aroclor 1254	8.80E-02	2.18						

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
Puget Sound Sediment Quality/ NOAA Site Characterization	203	06/22/98	Aroclor 1254	8.70E-02	1.5						
Ecology SPI	TRI-010	08/08/06	Aroclor 1254	8.70E-02 J	2.2						
EPA Site Inspection	DR042	08/12/98	Aroclor 1254	8.10E-02	9.23						
LDWRI-Benthic	B2a	08/13/04	Aroclor 1254	8.00E-02	1.97						
EPA Site Inspection	DR080	08/24/98	Aroclor 1254	8.00E-02	1.82						
LDWRI-Surface Sediment Round 1	LDW-SS12	01/17/05	Aroclor 1254	7.70E-02	1.88						
EPA Site Inspection	DR032	08/11/98	Aroclor 1254	7.20E-02	1.79						
EPA Site Inspection	DR039	08/12/98	Aroclor 1254	7.10E-02	2.43						
EPA Site Inspection	DR044	08/12/98	Aroclor 1254	6.80E-02	2.08						
EPA Site Inspection	DR036	08/12/98	Aroclor 1254	6.60E-02 J							
EPA Site Inspection	DR070	08/12/98	Aroclor 1254	6.60E-02	1.75						
LDWRI-Surface Sediment Round 3	LDW-SS315	10/04/06	Aroclor 1254	6.60E-02	1.74						
LDW Outfall Sampling	LDW-SS2150-A	04/20/11	Aroclor 1254	6.50E-02	4.42						
EPA Site Inspection	DR078	08/24/98	Aroclor 1254	6.40E-02	2.07						
EPA Site Inspection	DR077	08/24/98	Aroclor 1254	6.30E-02	1.61						
EPA Site Inspection	DR069	08/18/98	Aroclor 1254	6.00E-02	1.92						
LDWRI-Surface Sediment Round 2	LDW-SS29	03/14/05	Aroclor 1254	5.80E-02	1.68						
KC CSO Water Quality Assessment	WQAKELL	03/06/97	Aroclor 1254	5.80E-02	2.27						
EPA Site Inspection	DR045	09/14/98	Aroclor 1254	5.70E-02	2.92						
LDWRI-Surface Sediment Round 2	LDW-SS9	03/14/05	Aroclor 1254	5.70E-02	1.79						
LDWRI-Surface Sediment Round 1	LDW-SS15	01/17/05	Aroclor 1254	5.60E-02	1.79						
KC CSO Water Quality Assessment	KI-2	09/24/97	Aroclor 1254	5.40E-02 J	2.09						
LDWRI-Surface Sediment Round 1	LDW-SS28	01/24/05	Aroclor 1254	5.10E-02	1.22						
LDW Outfall Sampling	LDW-SSSWCSO-A	04/08/11	Aroclor 1254	5.10E-02	2.69						
KC CSO Water Quality Assessment	WQAKELL	03/12/97	Aroclor 1254	5.10E-02	2.09						
LDWRI-Benthic	C2-2	08/26/04	Aroclor 1254	5.00E-02	1.06						
KC CSO Water Quality Assessment	KI-1	09/24/97	Aroclor 1254	4.70E-02 J	2.59						
Harbor Island RI	K-05	09/27/91	Aroclor 1254	4.49E-02 J	1.6						
LDW Outfall Sampling	LDW-SSSWCSO-U	04/08/11	Aroclor 1254	4.30E-02	1.2						
EPA Site Inspection	DR037	08/18/98	Aroclor 1254	4.20E-02	2.02						
EPA Site Inspection	DR048	08/12/98	Aroclor 1254	4.00E-02	2.03						
EPA Site Inspection	DR068	08/18/98	Aroclor 1254	4.00E-02	2.36						
KC CSO Water Quality Assessment	WQAKELL	05/01/97	Aroclor 1254	4.00E-02	2.03						
EPA Site Inspection	DR046	08/12/98	Aroclor 1254	3.80E-02	2.26						
KC CSO Water Quality Assessment	WQAKELL	04/03/97	Aroclor 1254	3.80E-02	2.17						
LDW Outfall Sampling	LDW-SS2233-D	04/20/11	Aroclor 1254	3.70E-02	0.617						
KC CSO Water Quality Assessment	WQAKELL	04/17/97	Aroclor 1254	3.60E-02	2.07						
KC CSO Water Quality Assessment	KI-2	09/24/97	Aroclor 1254	3.40E-02 J	2.06						
EPA Site Inspection	DR066	08/18/98	Aroclor 1254	3.20E-02	2.25						
LDWRI-Surface Sediment Round 1	LDW-SS10	01/17/05	Aroclor 1254	3.10E-02	1.63						
KC CSO Water Quality Assessment	KI-1	09/24/97	Aroclor 1254	3.03E-02 J	2.44						
LDWRI-Surface Sediment Round 1	LDW-SS23	01/18/05	Aroclor 1254	3.00E-02	1.23						

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
LDWRI-Surface Sediment Round 2	LDW-SS3	03/09/05	Aroclor 1254	3.00E-02	0.723						
LDWRI-Benthic	C2-1	08/26/04	Aroclor 1254	2.80E-02	1.82						
LDW Outfall Sampling	LDW-SS2157-A	03/24/11	Aroclor 1254	2.60E-02	1.81						
LDWRI-Surface Sediment Round 1	LDW-SS33	01/26/05	Aroclor 1254	2.60E-02	1.66						
LDWRI-Benthic	C3-1	08/27/04	Aroclor 1254	2.40E-02	0.93						
LDWRI-Surface Sediment Round 3	LDW-SS313	10/04/06	Aroclor 1254	2.40E-02	1.95						
LDWRI-Surface Sediment Round 1	LDW-SS36	01/24/05	Aroclor 1254	2.40E-02	1.89						
LDWRI-Benthic	B3a	08/26/04	Aroclor 1254	2.20E-02	1.36						
LDWRI-Surface Sediment Round 1	LDW-SS14	01/17/05	Aroclor 1254	2.00E-02 J	0.79						
LDW Outfall Sampling	LDW-SS2148-A	04/20/11	Aroclor 1254	1.80E-02	5.62						
LDW Outfall Sampling	LDW-SS2233-U	04/20/11	Aroclor 1254	1.80E-02	0.38						
LDW Outfall Sampling	LDW-SS2147-D	03/14/11	Aroclor 1254	1.20E-02	0.782						
Seaboard Lumber-Phase 2 Investigation	SD-13	03/28/96	Aroclor 1254	8.71E-03	2.64						
LDW Outfall Sampling	LDW-SS2144-A	03/14/11	Aroclor 1254	8.70E-03	0.849						
LDW Outfall Sampling	LDW-SS2146-A	03/14/11	Aroclor 1254	8.70E-03	1.01						
LDW Outfall Sampling	LDW-SS2232-U	04/20/11	Aroclor 1254	6.50E-03	1.63						
Seaboard Lumber-Phase 2 Investigation	SD-3	03/28/96	Aroclor 1254	5.77E-03	2.22						
LDW Outfall Sampling	LDW-SS2232-A	04/20/11	Aroclor 1254	5.60E-03	1.11						
Seaboard Lumber-Phase 2 Investigation	SD-12	03/28/96	Aroclor 1254	5.58E-03	2.43						
LDW Outfall Sampling	LDW-SS2232-D	04/20/11	Aroclor 1254	5.50E-03	0.778						
Seaboard Lumber-Phase 2 Investigation	SD-14	03/28/96	Aroclor 1254	5.20E-03	1.68						
Seaboard Lumber-Phase 2 Investigation	SD-9	03/28/96	Aroclor 1254	5.20E-03	1.68						
Seaboard Lumber-Phase 2 Investigation	SD-19	03/28/96	Aroclor 1254	4.95E-03	2.75						
Seaboard Lumber-Phase 2 Investigation	SD-10	03/28/96	Aroclor 1254	4.88E-03	2.57						
Seaboard Lumber-Phase 2 Investigation	SD-11	03/28/96	Aroclor 1254	4.59E-03	2.7						
Seaboard Lumber-Phase 2 Investigation	SD-2	03/28/96	Aroclor 1254	4.17E-03	1.74						
Seaboard Lumber-Phase 2 Investigation	SD-1	03/28/96	Aroclor 1254	4.08E-03	3.4						
Seaboard Lumber-Phase 2 Investigation	SD-6	03/28/96	Aroclor 1254	3.80E-03	1.79						
Seaboard Lumber-Phase 2 Investigation	SD-6	03/28/96	Aroclor 1254	3.75E-03	1.79						
Seaboard Lumber-Phase 2 Investigation	SD-17	03/28/96	Aroclor 1254	3.72E-03	2.66						
Seaboard Lumber-Phase 2 Investigation	SD-4	03/28/96	Aroclor 1254	3.51E-03	1.85						
LDWRI-Surface Sediment Round 3	LDW-SS306	10/03/06	Aroclor 1254	3.40E-03 J	0.284						
Seaboard Lumber-Phase 2 Investigation	SD-5	03/28/96	Aroclor 1254	3.28E-03	2.05						
Seaboard Lumber-Phase 2 Investigation	SD-8	03/28/96	Aroclor 1254	3.20E-03	1.78						
Seaboard Lumber-Phase 2 Investigation	SD-7	03/28/96	Aroclor 1254	3.16E-03	1.76						
Seaboard Lumber-Phase 2 Investigation	SD-20	03/28/96	Aroclor 1254	2.71E-03	1.13						
Seaboard Lumber-Phase 2 Investigation	SD-18	03/28/96	Aroclor 1254	2.17E-03	3.11						
EPA Site Inspection	DR040	08/12/98	Aroclor 1260	7.76E-01	4.69						
EPA Site Inspection	DR044	08/12/98	Aroclor 1260	5.60E-01	2.22						
Ecology SPI	SPI-108	08/11/06	Aroclor 1260	4.10E-01 J	1.55						
LDWRI-Surface Sediment Round 3	LDW-SS312	10/03/06	Aroclor 1260	2.40E-01	4.2						
EPA Site Inspection	DR035	08/11/98	Aroclor 1260	2.14E-01 J							
LDWRI-Surface Sediment Round 3	LDW-SS311	10/03/06	Aroclor 1260	1.80E-01	4.36						
EPA Site Inspection	DR034	08/11/98	Aroclor 1260	1.51E-01 J							
LDW Dioxin Sampling	LDW-SS509	12/15/09	Aroclor 1260	1.50E-01	7.08						

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
LDWRI-Surface Sediment Round 3	LDW-SS309	10/03/06	Aroclor 1260	1.40E-01	2.02						
EPA Site Inspection	DR038	09/02/98	Aroclor 1260	1.38E-01 J	2.62						
EPA Site Inspection	DR041	08/12/98	Aroclor 1260	1.28E-01	2.43						
Puget Sound Sediment Quality/ NOAA Site Characterization	203	06/22/98	Aroclor 1260	1.20E-01	1.5						
LDWRI-Surface Sediment Round 3	LDW-SS310	10/03/06	Aroclor 1260	1.20E-01	1.63						
LDWRI-Surface Sediment Round 2	LDW-SS16	03/08/05	Aroclor 1260	1.10E-01	2.11						
EPA Site Inspection	DR039	08/12/98	Aroclor 1260	1.04E-01	2.43						
EPA Site Inspection	DR043	08/12/98	Aroclor 1260	1.04E-01	4.48						
EPA Site Inspection	DR031	08/11/98	Aroclor 1260	1.02E-01 J	2.07						
EPA Site Inspection	DR042	08/12/98	Aroclor 1260	1.01E-01	9.23						
LDWRI-Surface Sediment Round 2	LDW-SS24	03/14/05	Aroclor 1260	1.00E-01	5.99						
LDWRI-Surface Sediment Round 3	LDW-SS308	10/03/06	Aroclor 1260	1.00E-01	1.86						
EPA Site Inspection	DR080	08/24/98	Aroclor 1260	9.50E-02 J							
EPA Site Inspection	DR033	08/11/98	Aroclor 1260	8.50E-02 J							
LDWRI-Benthic	B2a	08/13/04	Aroclor 1260	8.30E-02	1.97						
EPA Site Inspection	DR079	08/24/98	Aroclor 1260	7.90E-02 J							
LDWRI-Surface Sediment Round 2	LDW-SS19	03/08/05	Aroclor 1260	7.90E-02	2.07						
EPA Site Inspection	DR044	08/12/98	Aroclor 1260	7.70E-02	2.68						
LDWRI-Surface Sediment Round 3	LDW-SS315	10/04/06	Aroclor 1260	7.70E-02	1.74						
Ecology SPI	TRI-015T	08/08/06	Aroclor 1260	7.30E-02 J	2.16						
EPA Site Inspection	DR070	08/12/98	Aroclor 1260	7.00E-02	1.75						
EPA Site Inspection	DR032	08/11/98	Aroclor 1260	6.80E-02 J							
Ecology SPI	TRI-016	08/08/06	Aroclor 1260	6.60E-02 J	2.38						
LDWRI-Surface Sediment Round 2	LDW-SS29	03/14/05	Aroclor 1260	6.50E-02	1.68						
EPA Site Inspection	DR044	08/12/98	Aroclor 1260	6.30E-02	2.08						
EPA Site Inspection	DR047	09/14/98	Aroclor 1260	6.20E-02	1.4						
LDWRI-Surface Sediment Round 2	LDW-SS9	03/14/05	Aroclor 1260	6.20E-02	1.79						
EPA Site Inspection	DR069	08/18/98	Aroclor 1260	5.90E-02	1.92						
KC CSO Water Quality Assessment	WQAKELL	05/01/97	Aroclor 1260	5.80E-02	2.03						
EPA Site Inspection	DR077	08/24/98	Aroclor 1260	5.70E-02 J							
EPA Site Inspection	DR078	08/24/98	Aroclor 1260	5.70E-02 J							
Ecology SPI	TRI-010	08/08/06	Aroclor 1260	5.70E-02 J	2.2						
KC CSO Water Quality Assessment	KI-2	09/24/97	Aroclor 1260	5.60E-02	2.09						
EPA Site Inspection	DR068	08/18/98	Aroclor 1260	5.30E-02 J							
KC CSO Water Quality Assessment	KI-1	09/24/97	Aroclor 1260	5.10E-02	2.59						
EPA Site Inspection	DR045	09/14/98	Aroclor 1260	5.00E-02	2.92						
LDW Outfall Sampling	LDW-SS2149-A	04/20/11	Aroclor 1260	5.00E-02	9.22						
LDWRI-Benthic	C2-2	08/26/04	Aroclor 1260	4.90E-02	1.06						
LDWRI-Surface Sediment Round 1	LDW-SS12	01/17/05	Aroclor 1260	4.90E-02	1.88						
EPA Site Inspection	DR048	08/12/98	Aroclor 1260	4.80E-02	2.03						
EPA Site Inspection	DR066	08/18/98	Aroclor 1260	4.50E-02 J							
KC CSO Water Quality Assessment	WQAKELL	03/06/97	Aroclor 1260	4.40E-02	2.27						

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
EPA Site Inspection	DR046	08/12/98	Aroclor 1260	4.20E-02	2.26						
EPA Site Inspection	DR037	08/18/98	Aroclor 1260	4.10E-02 J							
LDWRI-Surface Sediment Round 1	LDW-SS15	01/17/05	Aroclor 1260	3.70E-02 J	1.79						
LDW Outfall Sampling	LDW-SSSWCSO-U	04/08/11	Aroclor 1260	3.60E-02	1.2						
Seaboard Lumber-Phase 2 Investigation	SD-16	03/28/96	Aroclor 1260	3.59E-02	2.99						
KC CSO Water Quality Assessment	KI-2	09/24/97	Aroclor 1260	3.50E-02	2.06						
LDW Outfall Sampling	LDW-SSSWCSO-A	04/08/11	Aroclor 1260	3.40E-02	2.69						
KC CSO Water Quality Assessment	KI-1	09/24/97	Aroclor 1260	3.23E-02	2.44						
LDW Outfall Sampling	LDW-SS2233-D	04/20/11	Aroclor 1260	3.20E-02	0.617						
LDWRI-Surface Sediment Round 1	LDW-SS28	01/24/05	Aroclor 1260	3.20E-02	1.22						
LDWRI-Surface Sediment Round 1	LDW-SS23	01/18/05	Aroclor 1260	3.00E-02	1.23						
LDWRI-Benthic	C2-1	08/26/04	Aroclor 1260	2.80E-02	1.82						
LDWRI-Benthic	C3-1	08/27/04	Aroclor 1260	2.80E-02 J	0.93						
LDWRI-Surface Sediment Round 3	LDW-SS313	10/04/06	Aroclor 1260	2.80E-02	1.95						
Harbor Island RI	K-05	09/27/91	Aroclor 1260	2.70E-02 J	1.6						
LDW Outfall Sampling	LDW-SS2150-A	04/20/11	Aroclor 1260	2.50E-02	4.42						
LDW Outfall Sampling	LDW-SS2148-A	04/20/11	Aroclor 1260	2.30E-02	5.62						
LDWRI-Surface Sediment Round 2	LDW-SS3	03/09/05	Aroclor 1260	2.30E-02	0.723						
LDW Outfall Sampling	LDW-SS2157-A	03/24/11	Aroclor 1260	1.30E-02	1.81						
LDW Outfall Sampling	LDW-SS2233-U	04/20/11	Aroclor 1260	9.80E-03	0.38						
Seaboard Lumber-Phase 2 Investigation	SD-3	03/28/96	Aroclor 1260	9.76E-03	2.22						
Seaboard Lumber-Phase 2 Investigation	SD-19	03/28/96	Aroclor 1260	7.15E-03	2.75						
Seaboard Lumber-Phase 2 Investigation	SD-10	03/28/96	Aroclor 1260	6.93E-03	2.57						
Seaboard Lumber-Phase 2 Investigation	SD-13	03/28/96	Aroclor 1260	6.33E-03	2.64						
Seaboard Lumber-Phase 2 Investigation	SD-1	03/28/96	Aroclor 1260	5.78E-03	3.4						
Seaboard Lumber-Phase 2 Investigation	SD-2	03/28/96	Aroclor 1260	5.56E-03	1.74						
Seaboard Lumber-Phase 2 Investigation	SD-9	03/28/96	Aroclor 1260	5.54E-03	1.68						
LDW Outfall Sampling	LDW-SS2232-U	04/20/11	Aroclor 1260	5.40E-03	1.63						
Seaboard Lumber-Phase 2 Investigation	SD-11	03/28/96	Aroclor 1260	5.40E-03	2.7						
Seaboard Lumber-Phase 2 Investigation	SD-4	03/28/96	Aroclor 1260	5.18E-03	1.85						
LDWRI-Surface Sediment Round 3	LDW-SS306	10/03/06	Aroclor 1260	5.00E-03	0.284						
Seaboard Lumber-Phase 2 Investigation	SD-6	03/28/96	Aroclor 1260	4.50E-03	1.79						
Seaboard Lumber-Phase 2 Investigation	SD-6	03/28/96	Aroclor 1260	4.47E-03	1.79						
Seaboard Lumber-Phase 2 Investigation	SD-12	03/28/96	Aroclor 1260	4.37E-03	2.43						
Seaboard Lumber-Phase 2 Investigation	SD-5	03/28/96	Aroclor 1260	4.30E-03	2.05						
Seaboard Lumber-Phase 2 Investigation	SD-8	03/28/96	Aroclor 1260	3.91E-03	1.78						
Seaboard Lumber-Phase 2 Investigation	SD-7	03/28/96	Aroclor 1260	3.87E-03	1.76						
Seaboard Lumber-Phase 2 Investigation	SD-14	03/28/96	Aroclor 1260	3.86E-03	1.68						
LDWRI-Benthic	C1	08/26/04	Aroclor 1260	3.10E-03 J	0.47						
Seaboard Lumber-Phase 2 Investigation	SD-17	03/28/96	Aroclor 1260	2.66E-03	2.66						
Seaboard Lumber-Phase 2 Investigation	SD-15	03/28/96	Aroclor 1260	2.62E-03	1.46						
Seaboard Lumber-Phase 2 Investigation	SD-18	03/28/96	Aroclor 1260	2.48E-03	3.11						
Seaboard Lumber-Phase 2 Investigation	SD-20	03/28/96	Aroclor 1260	1.24E-03 J	1.13						
Terminal 105 Site Assessment	SS1	11/23/93	Arsenic	3.80E+01 T	1.9		57	93	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2150-A	04/20/11	Arsenic	3.60E+01	4.42		57	93	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2148-A	04/20/11	Arsenic	3.20E+01	5.62		57	93	mg/kg DW	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
LDW Outfall Sampling	LDW-SSSWCSO-U	04/08/11	Arsenic	3.00E+01 J	1.2		57	93	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-17	03/28/96	Arsenic	2.90E+01	2.66		57	93	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	KI-1	09/24/97	Arsenic	2.30E+01	2.59		57	93	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2233-D	04/20/11	Arsenic	2.20E+01	0.617		57	93	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	WQAKELL	05/08/97	Arsenic	2.20E+01	2.05		57	93	mg/kg DW	<1	<1
EPA Site Inspection	DR036	08/12/98	Arsenic	2.19E+01 J			57	93	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	KI-1	09/24/97	Arsenic	2.15E+01	2.44		57	93	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS24	03/14/05	Arsenic	2.07E+01	5.99		57	93	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS29	03/14/05	Arsenic	2.02E+01	1.68		57	93	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	KI-1	09/24/97	Arsenic	2.00E+01	2.29		57	93	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2144-A	03/14/11	Arsenic	2.00E+01	0.849		57	93	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2157-A	03/24/11	Arsenic	2.00E+01 J	1.81		57	93	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SSSWCSO-A	04/08/11	Arsenic	2.00E+01 J	2.69		57	93	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS311	10/03/06	Arsenic	1.92E+01	4.36		57	93	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	KI-3	09/24/97	Arsenic	1.90E+01	2.05		57	93	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	KI-3	09/24/97	Arsenic	1.85E+01	2.145		57	93	mg/kg DW	<1	<1
EPA Site Inspection	DR042	08/12/98	Arsenic	1.82E+01 J	9.23		57	93	mg/kg DW	<1	<1
LDW Dioxin Sampling	LDW-SS509	12/15/09	Arsenic	1.81E+01	7.08		57	93	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	KI-3	09/24/97	Arsenic	1.80E+01	2.24		57	93	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS36	01/24/05	Arsenic	1.80E+01	1.89		57	93	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	WQAKELL	05/01/97	Arsenic	1.80E+01	2.03		57	93	mg/kg DW	<1	<1
EPA Site Inspection	DR038	09/02/98	Arsenic	1.72E+01	2.62		57	93	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-10	03/28/96	Arsenic	1.70E+01	2.57		57	93	mg/kg DW	<1	<1
Terminal 105 Site Assessment	SS2	11/17/93	Arsenic	1.70E+01 T	0.98		57	93	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	WQAKELL	03/27/97	Arsenic	1.70E+01	2.04		57	93	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	WQAKELL	04/03/97	Arsenic	1.70E+01	2.17		57	93	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	WQAKELL	04/08/97	Arsenic	1.70E+01	2.19		57	93	mg/kg DW	<1	<1
EPA Site Inspection	DR035	08/11/98	Arsenic	1.67E+01	2.29		57	93	mg/kg DW	<1	<1
EPA Site Inspection	DR040	08/12/98	Arsenic	1.64E+01 J	4.69		57	93	mg/kg DW	<1	<1
Ecology SPI	TRI-016	08/08/06	Arsenic	1.62E+01	2.38		57	93	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	KI-2	09/24/97	Arsenic	1.60E+01	2.09		57	93	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS19	03/08/05	Arsenic	1.60E+01	2.07		57	93	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	WQAKELL	03/06/97	Arsenic	1.60E+01	2.06		57	93	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	WQAKELL	03/12/97	Arsenic	1.60E+01	2.09		57	93	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	WQAKELL	04/24/97	Arsenic	1.60E+01	2.27		57	93	mg/kg DW	<1	<1
EPA Site Inspection	DR039	08/12/98	Arsenic	1.59E+01 J			57	93	mg/kg DW	<1	<1
EPA Site Inspection	DR077	08/24/98	Arsenic	1.57E+01	1.61		57	93	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	KI-2	09/24/97	Arsenic	1.55E+01	2.06		57	93	mg/kg DW	<1	<1
EPA Site Inspection	DR031	08/11/98	Arsenic	1.52E+01	2.07		57	93	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS16	03/08/05	Arsenic	1.52E+01	2.11		57	93	mg/kg DW	<1	<1
EPA Site Inspection	DR079	08/24/98	Arsenic	1.51E+01	2.18		57	93	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	KI-2	09/24/97	Arsenic	1.50E+01	2.03		57	93	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS9	03/14/05	Arsenic	1.49E+01	1.79		57	93	mg/kg DW	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
EPA Site Inspection	DR078	08/24/98	Arsenic	1.41E+01	2.07		57	93	mg/kg DW	<1	<1
EPA Site Inspection	DR044	08/12/98	Arsenic	1.40E+01	2.08		57	93	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2146-A	03/14/11	Arsenic	1.40E+01	1.01		57	93	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-1	03/28/96	Arsenic	1.40E+01	3.4		57	93	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	WQAKELL	04/17/97	Arsenic	1.40E+01	2.07		57	93	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS315	10/04/06	Arsenic	1.37E+01	1.74		57	93	mg/kg DW	<1	<1
Ecology SPI	TRI-015T	08/08/06	Arsenic	1.36E+01	2.16		57	93	mg/kg DW	<1	<1
EPA Site Inspection	DR041	08/12/98	Arsenic	1.31E+01 J	2.43		57	93	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS312	10/03/06	Arsenic	1.31E+01	4.2		57	93	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS12	01/17/05	Arsenic	1.30E+01	1.88		57	93	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2232-A	04/20/11	Arsenic	1.30E+01	1.11		57	93	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-8	03/28/96	Arsenic	1.30E+01	1.78		57	93	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-18	03/28/96	Arsenic	1.27E+01	3.11		57	93	mg/kg DW	<1	<1
EPA Site Inspection	DR080	08/24/98	Arsenic	1.26E+01	1.82		57	93	mg/kg DW	<1	<1
EPA Site Inspection	DR047	09/14/98	Arsenic	1.25E+01	1.4		57	93	mg/kg DW	<1	<1
EPA Site Inspection	DR068	08/18/98	Arsenic	1.25E+01	2.36		57	93	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS28	01/24/05	Arsenic	1.25E+01	1.22		57	93	mg/kg DW	<1	<1
EPA Site Inspection	DR033	08/11/98	Arsenic	1.24E+01	1.72		57	93	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS10	01/17/05	Arsenic	1.24E+01	1.63		57	93	mg/kg DW	<1	<1
Ecology SPI	TRI-010	08/08/06	Arsenic	1.22E+01	2.2		57	93	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS14	01/17/05	Arsenic	1.21E+01	0.79		57	93	mg/kg DW	<1	<1
EPA Site Inspection	DR044	08/12/98	Arsenic	1.20E+01	2.68		57	93	mg/kg DW	<1	<1
EPA Site Inspection	DR066	08/18/98	Arsenic	1.20E+01	2.25		57	93	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2232-U	04/20/11	Arsenic	1.20E+01	1.63		57	93	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-13	03/28/96	Arsenic	1.20E+01	2.64		57	93	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-3	03/28/96	Arsenic	1.20E+01	2.22		57	93	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-4	03/28/96	Arsenic	1.20E+01	1.85		57	93	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-5	03/28/96	Arsenic	1.20E+01	2.05		57	93	mg/kg DW	<1	<1
EPA Site Inspection	DR034	08/11/98	Arsenic	1.16E+01	1.84		57	93	mg/kg DW	<1	<1
EPA Site Inspection	DR048	08/12/98	Arsenic	1.16E+01 J	2.03		57	93	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS15	01/17/05	Arsenic	1.15E+01	1.79		57	93	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS310	10/03/06	Arsenic	1.15E+01	1.63		57	93	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS33	01/26/05	Arsenic	1.13E+01	1.66		57	93	mg/kg DW	<1	<1
EPA Site Inspection	DR043	08/12/98	Arsenic	1.12E+01 J	4.48		57	93	mg/kg DW	<1	<1
Harbor Island RI	K-05	09/27/91	Arsenic	1.12E+01	1.6		57	93	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-11	03/28/96	Arsenic	1.10E+01	2.7		57	93	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-12	03/28/96	Arsenic	1.10E+01	2.43		57	93	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-6	03/28/96	Arsenic	1.10E+01	1.79		57	93	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-9	03/28/96	Arsenic	1.10E+01	1.68		57	93	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS3	03/09/05	Arsenic	1.08E+01	0.723		57	93	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS314	10/04/06	Arsenic	1.08E+01	2.81		57	93	mg/kg DW	<1	<1
EPA Site Inspection	DR037	08/18/98	Arsenic	1.06E+01	2.02		57	93	mg/kg DW	<1	<1
EPA Site Inspection	DR076	08/24/98	Arsenic	1.06E+01	0.1		57	93	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS309	10/03/06	Arsenic	1.06E+01	2.02		57	93	mg/kg DW	<1	<1
Ecology SPI	SPI-108	08/11/06	Arsenic	1.06E+01 J	1.55		57	93	mg/kg DW	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
Puget Sound Sediment Quality/ NOAA Site Characterization	203	06/22/98	Arsenic	1.05E+01	1.5		57	93	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-6	03/28/96	Arsenic	1.05E+01	1.79		57	93	mg/kg DW	<1	<1
EPA Site Inspection	DR069	08/18/98	Arsenic	1.03E+01 J			57	93	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS308	10/03/06	Arsenic	1.01E+01	1.86		57	93	mg/kg DW	<1	<1
EPA Site Inspection	DR046	08/12/98	Arsenic	1.00E+01 J	2.26		57	93	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2147-D	03/14/11	Arsenic	1.00E+01	0.782		57	93	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2149-A	04/20/11	Arsenic	1.00E+01	9.22		57	93	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2233-U	04/20/11	Arsenic	1.00E+01	0.38		57	93	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-2	03/28/96	Arsenic	1.00E+01	1.74		57	93	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-7	03/28/96	Arsenic	1.00E+01	1.76		57	93	mg/kg DW	<1	<1
EPA Site Inspection	DR044	08/12/98	Arsenic	9.80E+00 J	2.22		57	93	mg/kg DW	<1	<1
EPA Site Inspection	DR070	08/12/98	Arsenic	9.70E+00 J	1.75		57	93	mg/kg DW	<1	<1
EPA Site Inspection	DR032	08/11/98	Arsenic	9.40E+00	1.79		57	93	mg/kg DW	<1	<1
LDWRI-Benthic	B2a	08/13/04	Arsenic	9.34E+00 J	1.97		57	93	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-15	03/28/96	Arsenic	8.80E+00	1.46		57	93	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-14	03/28/96	Arsenic	8.10E+00	1.68		57	93	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-19	03/28/96	Arsenic	8.10E+00	2.75		57	93	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2232-D	04/20/11	Arsenic	8.00E+00	0.778		57	93	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	KI-4	09/24/97	Arsenic	7.80E+00	0.71		57	93	mg/kg DW	<1	<1
EPA Site Inspection	DR045	09/14/98	Arsenic	7.60E+00	2.92		57	93	mg/kg DW	<1	<1
EPA Site Inspection	DR067	08/18/98	Arsenic	7.40E+00	0.82		57	93	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-16	03/28/96	Arsenic	7.00E+00	2.99		57	93	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS313	10/04/06	Arsenic	6.70E+00	1.95		57	93	mg/kg DW	<1	<1
LDWRI-Benthic	C2-1	08/26/04	Arsenic	5.79E+00	1.82		57	93	mg/kg DW	<1	<1
LDWRI-Benthic	B3a	08/26/04	Arsenic	5.77E+00 J	1.36		57	93	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS306	10/03/06	Arsenic	5.10E+00	0.284		57	93	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	KI-4	09/24/97	Arsenic	5.00E+00	0.81		57	93	mg/kg DW	<1	<1
LDWRI-Benthic	C3-1	08/27/04	Arsenic	4.63E+00	0.93		57	93	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS23	01/18/05	Arsenic	4.40E+00	1.23		57	93	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-20	03/28/96	Arsenic	4.10E+00	1.13		57	93	mg/kg DW	<1	<1
LDWRI-Benthic	B1a	08/13/04	Arsenic	3.90E+00 J	1.7		57	93	mg/kg DW	<1	<1
LDWRI-Benthic	C3-2	08/27/04	Arsenic	3.62E+00	1.31		57	93	mg/kg DW	<1	<1
LDWRI-Benthic	C1	08/26/04	Arsenic	3.53E+00	0.47		57	93	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SSC1	03/15/05	Arsenic	3.50E+00	0.625		57	93	mg/kg DW	<1	<1
LDWRI-Benthic	C2-2	08/26/04	Arsenic	3.13E+00	1.06		57	93	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS34	03/14/05	Arsenic	3.10E+00	1.52		57	93	mg/kg DW	<1	<1
EPA Site Inspection	DR044	08/12/98	Barium	1.81E+02	2.22						
EPA Site Inspection	DR035	08/11/98	Barium	1.54E+02	2.29						
EPA Site Inspection	DR044	08/12/98	Barium	1.52E+02	2.68						
EPA Site Inspection	DR077	08/24/98	Barium	1.38E+02	1.61						
EPA Site Inspection	DR039	08/12/98	Barium	1.30E+02	2.43						
EPA Site Inspection	DR038	09/02/98	Barium	1.19E+02	2.62						
EPA Site Inspection	DR034	08/11/98	Barium	1.12E+02	1.84						
EPA Site Inspection	DR078	08/24/98	Barium	1.03E+02	2.07						

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
EPA Site Inspection	DR068	08/18/98	Barium	9.60E+01	2.36						
EPA Site Inspection	DR040	08/12/98	Barium	9.50E+01	4.69						
EPA Site Inspection	DR079	08/24/98	Barium	9.50E+01	2.18						
EPA Site Inspection	DR037	08/18/98	Barium	9.40E+01	2.02						
EPA Site Inspection	DR041	08/12/98	Barium	9.40E+01	2.43						
EPA Site Inspection	DR042	08/12/98	Barium	8.90E+01	9.23						
EPA Site Inspection	DR070	08/12/98	Barium	8.80E+01	1.75						
EPA Site Inspection	DR069	08/18/98	Barium	8.60E+01	1.92						
EPA Site Inspection	DR080	08/24/98	Barium	8.60E+01	1.82						
EPA Site Inspection	DR066	08/18/98	Barium	8.50E+01	2.25						
EPA Site Inspection	DR033	08/11/98	Barium	8.40E+01	1.72						
EPA Site Inspection	DR048	08/12/98	Barium	7.40E+01	2.03						
EPA Site Inspection	DR032	08/11/98	Barium	6.50E+01	1.79						
Puget Sound Sediment Quality/ NOAA Site Characterization	203	06/22/98	Barium	6.45E+01	1.5						
EPA Site Inspection	DR043	08/12/98	Barium	6.20E+01	4.48						
EPA Site Inspection	DR044	08/12/98	Barium	5.60E+01	2.08						
EPA Site Inspection	DR036	08/12/98	Barium	5.40E+01	3.37						
EPA Site Inspection	DR047	09/14/98	Barium	5.30E+01	1.4						
EPA Site Inspection	DR046	08/12/98	Barium	5.20E+01	2.26						
EPA Site Inspection	DR031	08/11/98	Barium	5.10E+01	2.07						
EPA Site Inspection	DR045	09/14/98	Barium	4.50E+01	2.92						
EPA Site Inspection	DR067	08/18/98	Barium	4.40E+01	0.82						
EPA Site Inspection	DR076	08/24/98	Barium	1.30E+01	0.1						
LDWRI-Surface Sediment Round 2	LDW-SS24[a]	03/14/05	Benzo(a)anthracene	2.60E+00	5.99		1.3	1.6	mg/kg DW	2.0	1.6
LDWRI-Surface Sediment Round 3	LDW-SS312[a]	10/03/06	Benzo(a)anthracene	2.20E+00	4.2		1.3	1.6	mg/kg DW	1.7	1.4
EPA Site Inspection	DR038	09/02/98	Benzo(a)anthracene	2.00E+00	2.62	7.63E+01	110	270	mg/kg OC	<1	<1
EPA Site Inspection	DR044	08/12/98	Benzo(a)anthracene	2.00E+00	2.08	9.62E+01	110	270	mg/kg OC	<1	<1
EPA Site Inspection	DR033	08/11/98	Benzo(a)anthracene	1.90E+00	1.72	1.10E+02	110	270	mg/kg OC	1.0	<1
LDW Dioxin Sampling	LDW-SS509[a]	12/15/09	Benzo(a)anthracene	1.80E+00	7.08		1.3	1.6	mg/kg DW	1.4	1.1
EPA Site Inspection	DR040[a]	08/12/98	Benzo(a)anthracene	1.30E+00	4.69	2.77E+01	1.3	1.6	mg/kg DW	1.0	<1
EPA Site Inspection	DR047	09/14/98	Benzo(a)anthracene	1.30E+00	1.4	9.29E+01	110	270	mg/kg OC	<1	<1
Terminal 105 Site Assessment	SS1	11/23/93	Benzo(a)anthracene	9.50E-01	1.9	5.00E+01	110	270	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SSSWCSO-U	04/08/11	Benzo(a)anthracene	8.70E-01	1.2	7.25E+01	110	270	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2150-A[a]	04/20/11	Benzo(a)anthracene	8.60E-01	5.62		1.3	1.6	mg/kg DW	<1	<1
EPA Site Inspection	DR037	08/18/98	Benzo(a)anthracene	8.50E-01	2.02	4.21E+01	110	270	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS9	03/14/05	Benzo(a)anthracene	8.50E-01	1.79	4.75E+01	110	270	mg/kg OC	<1	<1
EPA Site Inspection	DR048	08/12/98	Benzo(a)anthracene	8.40E-01	2.03	4.14E+01	110	270	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS311[a]	10/03/06	Benzo(a)anthracene	8.20E-01	4.36		1.3	1.6	mg/kg DW	<1	<1
EPA Site Inspection	DR031	08/11/98	Benzo(a)anthracene	6.20E-01	2.07	3.00E+01	110	270	mg/kg OC	<1	<1
Ecology SPI	TRI-015T	08/08/06	Benzo(a)anthracene	4.93E-01	2.16	2.28E+01	110	270	mg/kg OC	<1	<1
EPA Site Inspection	DR035	08/11/98	Benzo(a)anthracene	4.90E-01	2.29	2.14E+01	110	270	mg/kg OC	<1	<1
Ecology SPI	TRI-010	08/08/06	Benzo(a)anthracene	4.29E-01	2.2	1.95E+01	110	270	mg/kg OC	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
EPA Site Inspection	DR066	08/18/98	Benzo(a)anthracene	4.10E-01	2.25	1.82E+01	110	270	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS310	10/03/06	Benzo(a)anthracene	4.00E-01	1.63	2.45E+01	110	270	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS36	01/24/05	Benzo(a)anthracene	4.00E-01	1.89	2.12E+01	110	270	mg/kg OC	<1	<1
Ecology SPI	SPI-108	08/11/06	Benzo(a)anthracene	3.94E-01	1.55	2.54E+01	110	270	mg/kg OC	<1	<1
EPA Site Inspection	DR034	08/11/98	Benzo(a)anthracene	3.90E-01	1.84	2.12E+01	110	270	mg/kg OC	<1	<1
EPA Site Inspection	DR077	08/24/98	Benzo(a)anthracene	3.90E-01	1.61	2.42E+01	110	270	mg/kg OC	<1	<1
EPA Site Inspection	DR068	08/18/98	Benzo(a)anthracene	3.80E-01	2.36	1.61E+01	110	270	mg/kg OC	<1	<1
EPA Site Inspection	DR041	08/12/98	Benzo(a)anthracene	3.70E-01	2.43	1.52E+01	110	270	mg/kg OC	<1	<1
EPA Site Inspection	DR032	08/11/98	Benzo(a)anthracene	3.40E-01	1.79	1.90E+01	110	270	mg/kg OC	<1	<1
EPA Site Inspection	DR079	08/24/98	Benzo(a)anthracene	3.40E-01	2.18	1.56E+01	110	270	mg/kg OC	<1	<1
EPA Site Inspection	DR039	08/12/98	Benzo(a)anthracene	3.30E-01	2.43	1.36E+01	110	270	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS309	10/03/06	Benzo(a)anthracene	3.30E-01	2.02	1.63E+01	110	270	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SSSWCSO-A	04/08/11	Benzo(a)anthracene	3.30E-01	2.69	1.23E+01	110	270	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS10	01/17/05	Benzo(a)anthracene	3.20E-01	1.63	1.96E+01	110	270	mg/kg OC	<1	<1
EPA Site Inspection	DR069	08/18/98	Benzo(a)anthracene	3.10E-01	1.92	1.61E+01	110	270	mg/kg OC	<1	<1
Harbor Island RI	K-05	09/27/91	Benzo(a)anthracene	3.10E-01 J	1.6	1.94E+01	110	270	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS16	03/08/05	Benzo(a)anthracene	3.10E-01	2.11	1.47E+01	110	270	mg/kg OC	<1	<1
Ecology SPI	TRI-016	08/08/06	Benzo(a)anthracene	2.95E-01	2.38	1.24E+01	110	270	mg/kg OC	<1	<1
Puget Sound Sediment Quality/ NOAA Site Characterization	203	06/22/98	Benzo(a)anthracene	2.81E-01	1.5	1.87E+01	110	270	mg/kg OC	<1	<1
LDWRI-Benthic	B2a	08/13/04	Benzo(a)anthracene	2.80E-01	1.97	1.42E+01	110	270	mg/kg OC	<1	<1
EPA Site Inspection	DR067	08/18/98	Benzo(a)anthracene	2.80E-01	0.82	3.41E+01	110	270	mg/kg OC	<1	<1
EPA Site Inspection	DR078	08/24/98	Benzo(a)anthracene	2.80E-01	2.07	1.35E+01	110	270	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS308	10/03/06	Benzo(a)anthracene	2.80E-01	1.86	1.51E+01	110	270	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS19	03/08/05	Benzo(a)anthracene	2.70E-01	2.07	1.30E+01	110	270	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2157-A	03/24/11	Benzo(a)anthracene	2.60E-01	1.81	1.44E+01	110	270	mg/kg OC	<1	<1
EPA Site Inspection	DR070	08/12/98	Benzo(a)anthracene	2.20E-01	1.75	1.26E+01	110	270	mg/kg OC	<1	<1
EPA Site Inspection	DR080	08/24/98	Benzo(a)anthracene	2.10E-01	1.82	1.15E+01	110	270	mg/kg OC	<1	<1
EPA Site Inspection	DR042[a]	08/12/98	Benzo(a)anthracene	2.00E-01	9.23	2.17E+00	1.3	1.6	mg/kg DW	<1	<1
Terminal 105 Site Assessment	SS2	11/17/93	Benzo(a)anthracene	2.00E-01 J	0.98	2.04E+01	110	270	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2150-A[a]	04/20/11	Benzo(a)anthracene	1.90E-01	9.22		1.3	1.6	mg/kg DW	<1	<1
LDWRI-Benthic	C2-1	08/26/04	Benzo(a)anthracene	1.80E-01	1.82	9.89E+00	110	270	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	03/06/97	Benzo(a)anthracene	1.70E-01 J	2.27	7.49E+00	110	270	mg/kg OC	<1	<1
EPA Site Inspection	DR046	08/12/98	Benzo(a)anthracene	1.60E-01	2.26	7.08E+00	110	270	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-1	09/24/97	Benzo(a)anthracene	1.60E-01 J	2.59	6.18E+00	110	270	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	03/12/97	Benzo(a)anthracene	1.60E-01 J	2.07	7.73E+00	110	270	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	04/17/97	Benzo(a)anthracene	1.60E-01 J	2.09	7.66E+00	110	270	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-1	09/24/97	Benzo(a)anthracene	1.55E-01 J	2.44	6.35E+00	110	270	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-1	09/24/97	Benzo(a)anthracene	1.50E-01 J	2.29	6.55E+00	110	270	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-2	09/24/97	Benzo(a)anthracene	1.50E-01 J	2.09	7.18E+00	110	270	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	05/01/97	Benzo(a)anthracene	1.50E-01 J	2.03	7.39E+00	110	270	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-2	09/24/97	Benzo(a)anthracene	1.35E-01 J	2.06	6.55E+00	110	270	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2233-D	04/20/11	Benzo(a)anthracene	1.30E-01	0.617	2.11E+01	110	270	mg/kg OC	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
KC CSO Water Quality Assessment	WQAKELL	04/03/97	Benzo(a)anthracene	1.30E-01 J	2.17	5.99E+00	110	270	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-2	09/24/97	Benzo(a)anthracene	1.20E-01 J	2.03	5.91E+00	110	270	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-3	09/24/97	Benzo(a)anthracene	1.20E-01 J	2.24	5.36E+00	110	270	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS12	01/17/05	Benzo(a)anthracene	1.20E-01	1.88	6.38E+00	110	270	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2144-A	03/14/11	Benzo(a)anthracene	1.20E-01	0.849	1.41E+01	110	270	mg/kg OC	<1	<1
LDWRI-Benthic	C3-1	08/27/04	Benzo(a)anthracene	1.10E-01	0.93	1.18E+01	110	270	mg/kg OC	<1	<1
EPA Site Inspection	DR043[a]	08/12/98	Benzo(a)anthracene	1.10E-01	4.48	2.46E+00	1.3	1.6	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2150-A[a]	04/20/11	Benzo(a)anthracene	1.10E-01	4.42		1.3	1.6	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	KI-3	09/24/97	Benzo(a)anthracene	1.01E-01 J	2.145	4.69E+00	110	270	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS15	01/17/05	Benzo(a)anthracene	1.00E-01	1.79	5.59E+00	110	270	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS28	01/24/05	Benzo(a)anthracene	1.00E-01	1.22	8.20E+00	110	270	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS3	03/09/05	Benzo(a)anthracene	1.00E-01	0.723	1.38E+01	110	270	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS313	10/04/06	Benzo(a)anthracene	1.00E-01	1.95	5.13E+00	110	270	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS314	10/04/06	Benzo(a)anthracene	1.00E-01	2.81	3.56E+00	110	270	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS29	03/14/05	Benzo(a)anthracene	9.90E-02	1.68	5.89E+00	110	270	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2232-U	04/20/11	Benzo(a)anthracene	9.40E-02	1.63	5.77E+00	110	270	mg/kg OC	<1	<1
EPA Site Inspection	DR036	08/12/98	Benzo(a)anthracene	9.00E-02	3.37	2.67E+00	110	270	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-17	03/28/96	Benzo(a)anthracene	8.78E-02	2.66	3.30E+00	110	270	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-3	09/24/97	Benzo(a)anthracene	8.10E-02 J	2.05	3.95E+00	110	270	mg/kg OC	<1	<1
EPA Site Inspection	DR045	09/14/98	Benzo(a)anthracene	7.00E-02	2.92	2.40E+00	110	270	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2147-D	03/14/11	Benzo(a)anthracene	6.40E-02	0.782	8.18E+00	110	270	mg/kg OC	<1	<1
EPA Site Inspection	DR044	08/12/98	Benzo(a)anthracene	6.00E-02	2.22	2.70E+00	110	270	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS315	10/04/06	Benzo(a)anthracene	6.00E-02 J	1.74	3.45E+00	110	270	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS34	03/14/05	Benzo(a)anthracene	5.90E-02	1.52	3.88E+00	110	270	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS33	01/26/05	Benzo(a)anthracene	5.70E-02	1.66	3.43E+00	110	270	mg/kg OC	<1	<1
LDWRI-Benthic	C3-2	08/27/04	Benzo(a)anthracene	5.30E-02	1.31	4.05E+00	110	270	mg/kg OC	<1	<1
EPA Site Inspection	DR044	08/12/98	Benzo(a)anthracene	5.00E-02	2.68	1.87E+00	110	270	mg/kg OC	<1	<1
Terminal 105 Site Assessment	SS3[a]	11/17/93	Benzo(a)anthracene	4.90E-02 J	0.13		1.3	1.6	mg/kg DW	<1	<1
LDWRI-Benthic	B1a	08/13/04	Benzo(a)anthracene	4.60E-02	1.7	2.71E+00	110	270	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2146-A	03/14/11	Benzo(a)anthracene	4.30E-02	1.01	4.26E+00	110	270	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-16	03/28/96	Benzo(a)anthracene	3.89E-02	2.99	1.30E+00	110	270	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS14	01/17/05	Benzo(a)anthracene	3.60E-02	0.79	4.56E+00	110	270	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2232-A	04/20/11	Benzo(a)anthracene	3.20E-02	1.11	2.88E+00	110	270	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-4	03/28/96	Benzo(a)anthracene	3.15E-02	1.85	1.70E+00	110	270	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-18	03/28/96	Benzo(a)anthracene	3.11E-02	3.11	1.00E+00	110	270	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-3	03/28/96	Benzo(a)anthracene	3.11E-02	2.22	1.40E+00	110	270	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-4	09/24/97	Benzo(a)anthracene	3.00E-02 J	0.71	4.23E+00	110	270	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-4	09/24/97	Benzo(a)anthracene	2.85E-02 J	0.81	3.52E+00	110	270	mg/kg OC	<1	<1
LDWRI-Benthic	B3a	08/26/04	Benzo(a)anthracene	2.80E-02	1.36	2.06E+00	110	270	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-4	09/24/97	Benzo(a)anthracene	2.70E-02 J	0.91	2.97E+00	110	270	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-5	03/28/96	Benzo(a)anthracene	2.67E-02	2.05	1.30E+00	110	270	mg/kg OC	<1	<1
LDWRI-Benthic	C2-2	08/26/04	Benzo(a)anthracene	2.50E-02	1.06	2.36E+00	110	270	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS23	01/18/05	Benzo(a)anthracene	2.50E-02	1.23	2.03E+00	110	270	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-10	03/28/96	Benzo(a)anthracene	1.98E-02	2.57	7.70E-01	110	270	mg/kg OC	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
LDW Outfall Sampling	LDW-SS2233-U[a]	04/20/11	Benzo(a)anthracene	1.80E-02	0.38		1.3	1.6	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-7	03/28/96	Benzo(a)anthracene	1.76E-02	1.76	1.00E+00	110	270	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-15	03/28/96	Benzo(a)anthracene	1.75E-02	1.46	1.20E+00	110	270	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-2	03/28/96	Benzo(a)anthracene	1.74E-02	1.74	1.00E+00	110	270	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-1	03/28/96	Benzo(a)anthracene	1.67E-02	3.4	4.90E-01	110	270	mg/kg OC	<1	<1
LDWRI-Benthic	C1[a]	08/26/04	Benzo(a)anthracene	1.60E-02	0.47		1.3	1.6	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-12	03/28/96	Benzo(a)anthracene	1.58E-02	2.43	6.50E-01	110	270	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-11	03/28/96	Benzo(a)anthracene	1.49E-02	2.7	5.50E-01	110	270	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-13	03/28/96	Benzo(a)anthracene	1.48E-02	2.64	5.60E-01	110	270	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-9	03/28/96	Benzo(a)anthracene	1.48E-02	1.68	8.80E-01	110	270	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-20	03/28/96	Benzo(a)anthracene	1.47E-02	1.13	1.30E+00	110	270	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-14	03/28/96	Benzo(a)anthracene	1.28E-02	1.68	7.60E-01	110	270	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-8	03/28/96	Benzo(a)anthracene	1.25E-02	1.78	7.00E-01	110	270	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-19	03/28/96	Benzo(a)anthracene	1.24E-02	2.75	4.50E-01	110	270	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-6	03/28/96	Benzo(a)anthracene	1.10E-02	1.79	6.15E-01	110	270	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-6	03/28/96	Benzo(a)anthracene	1.06E-02	1.79	5.90E-01	110	270	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS312[a]	10/03/06	Benzo(a)pyrene	3.20E+00	4.2		1.6	3.0	mg/kg DW	2.0	1.1
LDWRI-Surface Sediment Round 2	LDW-SS24[a]	03/14/05	Benzo(a)pyrene	2.10E+00	5.99		1.6	3.0	mg/kg DW	1.3	<1
LDW Dioxin Sampling	LDW-SS509[a]	12/15/09	Benzo(a)pyrene	2.10E+00	7.08		1.6	3.0	mg/kg DW	1.3	<1
EPA Site Inspection	DR033	08/11/98	Benzo(a)pyrene	1.30E+00	1.72	7.56E+01	99	210	mg/kg OC	<1	<1
EPA Site Inspection	DR038	09/02/98	Benzo(a)pyrene	1.10E+00	2.62	4.20E+01	99	210	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS311[a]	10/03/06	Benzo(a)pyrene	1.00E+00	4.36		1.6	3.0	mg/kg DW	<1	<1
EPA Site Inspection	DR044	08/12/98	Benzo(a)pyrene	8.90E-01	2.08	4.28E+01	99	210	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS9	03/14/05	Benzo(a)pyrene	8.50E-01	1.79	4.75E+01	99	210	mg/kg OC	<1	<1
EPA Site Inspection	DR040[a]	08/12/98	Benzo(a)pyrene	8.00E-01	4.69		1.6	3.0	mg/kg DW	<1	<1
EPA Site Inspection	DR047	09/14/98	Benzo(a)pyrene	7.30E-01	1.4	5.21E+01	99	210	mg/kg OC	<1	<1
Terminal 105 Site Assessment	SS1	11/23/93	Benzo(a)pyrene	7.00E-01 J	1.9	3.68E+01	99	210	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2150-A[a]	04/20/11	Benzo(a)pyrene	6.20E-01	5.62		1.6	3.0	mg/kg DW	<1	<1
EPA Site Inspection	DR035	08/11/98	Benzo(a)pyrene	5.60E-01	2.29	2.45E+01	99	210	mg/kg OC	<1	<1
EPA Site Inspection	DR031	08/11/98	Benzo(a)pyrene	5.50E-01	2.07	2.66E+01	99	210	mg/kg OC	<1	<1
EPA Site Inspection	DR037	08/18/98	Benzo(a)pyrene	4.60E-01	2.02	2.28E+01	99	210	mg/kg OC	<1	<1
Ecology SPI	TRI-015T	08/08/06	Benzo(a)pyrene	4.56E-01	2.16	2.11E+01	99	210	mg/kg OC	<1	<1
Ecology SPI	TRI-010	08/08/06	Benzo(a)pyrene	4.40E-01	2.2	2.00E+01	99	210	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS310	10/03/06	Benzo(a)pyrene	4.30E-01	1.63	2.64E+01	99	210	mg/kg OC	<1	<1
EPA Site Inspection	DR034	08/11/98	Benzo(a)pyrene	4.20E-01	1.84	2.28E+01	99	210	mg/kg OC	<1	<1
Ecology SPI	SPI-108	08/11/06	Benzo(a)pyrene	4.19E-01	1.55	2.70E+01	99	210	mg/kg OC	<1	<1
EPA Site Inspection	DR077	08/24/98	Benzo(a)pyrene	4.10E-01	1.61	2.55E+01	99	210	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS309	10/03/06	Benzo(a)pyrene	4.00E-01	2.02	1.98E+01	99	210	mg/kg OC	<1	<1
EPA Site Inspection	DR048	08/12/98	Benzo(a)pyrene	3.80E-01	2.03	1.87E+01	99	210	mg/kg OC	<1	<1
EPA Site Inspection	DR068	08/18/98	Benzo(a)pyrene	3.80E-01	2.36	1.61E+01	99	210	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS10	01/17/05	Benzo(a)pyrene	3.80E-01	1.63	2.33E+01	99	210	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS308	10/03/06	Benzo(a)pyrene	3.80E-01	1.86	2.04E+01	99	210	mg/kg OC	<1	<1
EPA Site Inspection	DR041	08/12/98	Benzo(a)pyrene	3.60E-01	2.43	1.48E+01	99	210	mg/kg OC	<1	<1
EPA Site Inspection	DR066	08/18/98	Benzo(a)pyrene	3.60E-01	2.25	1.60E+01	99	210	mg/kg OC	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
LDWRI-Surface Sediment Round 2	LDW-SS16	03/08/05	Benzo(a)pyrene	3.30E-01	2.11	1.56E+01	99	210	mg/kg OC	<1	<1
EPA Site Inspection	DR032	08/11/98	Benzo(a)pyrene	3.10E-01	1.79	1.73E+01	99	210	mg/kg OC	<1	<1
EPA Site Inspection	DR079	08/24/98	Benzo(a)pyrene	3.10E-01	2.18	1.42E+01	99	210	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SSSWCSO-U	04/08/11	Benzo(a)pyrene	3.10E-01	1.2	2.58E+01	99	210	mg/kg OC	<1	<1
Puget Sound Sediment Quality/ NOAA Site Characterization	203	06/22/98	Benzo(a)pyrene	3.01E-01	1.5	2.01E+01	99	210	mg/kg OC	<1	<1
EPA Site Inspection	DR078	08/24/98	Benzo(a)pyrene	3.00E-01	2.07	1.45E+01	99	210	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2150-A[a]	04/20/11	Benzo(a)pyrene	3.00E-01	9.22		1.6	3.0	mg/kg DW	<1	<1
EPA Site Inspection	DR069	08/18/98	Benzo(a)pyrene	2.90E-01	1.92	1.51E+01	99	210	mg/kg OC	<1	<1
LDWRI-Benthic	B2a	08/13/04	Benzo(a)pyrene	2.80E-01	1.97	1.42E+01	99	210	mg/kg OC	<1	<1
EPA Site Inspection	DR039	08/12/98	Benzo(a)pyrene	2.80E-01	2.43	1.15E+01	99	210	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS19	03/08/05	Benzo(a)pyrene	2.80E-01	2.07	1.35E+01	99	210	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS36	01/24/05	Benzo(a)pyrene	2.80E-01	1.89	1.48E+01	99	210	mg/kg OC	<1	<1
Ecology SPI	TRI-016	08/08/06	Benzo(a)pyrene	2.79E-01	2.38	1.17E+01	99	210	mg/kg OC	<1	<1
EPA Site Inspection	DR070	08/12/98	Benzo(a)pyrene	2.70E-01	1.75	1.54E+01	99	210	mg/kg OC	<1	<1
EPA Site Inspection	DR042[a]	08/12/98	Benzo(a)pyrene	2.50E-01	9.23	2.71E+00	1.6	3	mg/kg DW	<1	<1
Harbor Island RI	K-05	09/27/91	Benzo(a)pyrene	2.40E-01 J	1.6	1.50E+01	99	210	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SSSWCSO-A	04/08/11	Benzo(a)pyrene	2.30E-01	2.69	8.55E+00	99	210	mg/kg OC	<1	<1
EPA Site Inspection	DR080	08/24/98	Benzo(a)pyrene	2.20E-01	1.82	1.21E+01	99	210	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2157-A	03/24/11	Benzo(a)pyrene	2.10E-01	1.81	1.16E+01	99	210	mg/kg OC	<1	<1
Terminal 105 Site Assessment	SS2	11/17/93	Benzo(a)pyrene	2.10E-01	0.98	2.14E+01	99	210	mg/kg OC	<1	<1
EPA Site Inspection	DR046	08/12/98	Benzo(a)pyrene	1.90E-01	2.26	8.41E+00	99	210	mg/kg OC	<1	<1
EPA Site Inspection	DR067	08/18/98	Benzo(a)pyrene	1.90E-01	0.82	2.32E+01	99	210	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-2	09/24/97	Benzo(a)pyrene	1.80E-01 J	2.09	8.61E+00	99	210	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	03/06/97	Benzo(a)pyrene	1.80E-01 J	2.09	8.61E+00	99	210	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	03/12/97	Benzo(a)pyrene	1.80E-01 J	2.27	7.93E+00	99	210	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-1	09/24/97	Benzo(a)pyrene	1.70E-01 J	2.59	6.56E+00	99	210	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS3	03/09/05	Benzo(a)pyrene	1.70E-01	0.723	2.35E+01	99	210	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	04/17/97	Benzo(a)pyrene	1.70E-01 J	2.07	8.21E+00	99	210	mg/kg OC	<1	<1
LDWRI-Benthic	C2-1	08/26/04	Benzo(a)pyrene	1.60E-01	1.82	8.79E+00	99	210	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-1	09/24/97	Benzo(a)pyrene	1.60E-01 J	2.44	6.56E+00	99	210	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	05/01/97	Benzo(a)pyrene	1.60E-01 J	2.03	7.88E+00	99	210	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-1	09/24/97	Benzo(a)pyrene	1.50E-01 J	2.29	6.55E+00	99	210	mg/kg OC	<1	<1
EPA Site Inspection	DR043[a]	08/12/98	Benzo(a)pyrene	1.40E-01	4.48	3.13E+00	1.6	3	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS12	01/17/05	Benzo(a)pyrene	1.40E-01	1.88	7.45E+00	99	210	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS314	10/04/06	Benzo(a)pyrene	1.40E-01	2.81	4.98E+00	99	210	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-2	09/24/97	Benzo(a)pyrene	1.38E-01 J	2.06	6.67E+00	99	210	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2232-U	04/20/11	Benzo(a)pyrene	1.30E-01	1.63	7.98E+00	99	210	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS28	01/24/05	Benzo(a)pyrene	1.30E-01	1.22	1.07E+01	99	210	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	04/03/97	Benzo(a)pyrene	1.30E-01 J	2.17	5.99E+00	99	210	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-3	09/24/97	Benzo(a)pyrene	1.20E-01 J	2.24	5.36E+00	99	210	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2144-A	03/14/11	Benzo(a)pyrene	1.20E-01	0.849	1.41E+01	99	210	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2233-D	04/20/11	Benzo(a)pyrene	1.20E-01	0.617	1.94E+01	99	210	mg/kg OC	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
LDWRI-Surface Sediment Round 2	LDW-SS29	03/14/05	Benzo(a)pyrene	1.20E-01	1.68	7.14E+00	99	210	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS313	10/04/06	Benzo(a)pyrene	1.20E-01	1.95	6.15E+00	99	210	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-3	09/24/97	Benzo(a)pyrene	1.04E-01 J	2.145	4.83E+00	99	210	mg/kg OC	<1	<1
EPA Site Inspection	DR044	08/12/98	Benzo(a)pyrene	1.00E-01	2.22	4.50E+00	99	210	mg/kg OC	<1	<1
LDWRI-Benthic	C3-1	08/27/04	Benzo(a)pyrene	9.90E-02	0.93	1.06E+01	99	210	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS15	01/17/05	Benzo(a)pyrene	9.90E-02	1.79	5.53E+00	99	210	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-2	09/24/97	Benzo(a)pyrene	9.50E-02 J	2.03	4.68E+00	99	210	mg/kg OC	<1	<1
EPA Site Inspection	DR036	08/12/98	Benzo(a)pyrene	9.00E-02	3.37	2.67E+00	99	210	mg/kg OC	<1	<1
EPA Site Inspection	DR045	09/14/98	Benzo(a)pyrene	9.00E-02	2.92	3.08E+00	99	210	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-3	09/24/97	Benzo(a)pyrene	8.70E-02 J	2.05	4.24E+00	99	210	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2150-A[a]	04/20/11	Benzo(a)pyrene	8.50E-02	4.42		1.6	3.0	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-17	03/28/96	Benzo(a)pyrene	8.25E-02	2.66	3.10E+00	99	210	mg/kg OC	<1	<1
LDWRI-Benthic	C3-2	08/27/04	Benzo(a)pyrene	7.60E-02	1.31	5.80E+00	99	210	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2147-D	03/14/11	Benzo(a)pyrene	7.60E-02	0.782	9.72E+00	99	210	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS315	10/04/06	Benzo(a)pyrene	7.20E-02	1.74	4.14E+00	99	210	mg/kg OC	<1	<1
Terminal 105 Site Assessment	SS3[a]	11/17/93	Benzo(a)pyrene	5.80E-02 J	0.13		1.6	3	mg/kg DW	<1	<1
LDWRI-Benthic	B1a	08/13/04	Benzo(a)pyrene	5.30E-02	1.7	3.12E+00	99	210	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS33	01/26/05	Benzo(a)pyrene	5.10E-02	1.66	3.07E+00	99	210	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS14	01/17/05	Benzo(a)pyrene	5.00E-02	0.79	6.33E+00	99	210	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2146-A	03/14/11	Benzo(a)pyrene	4.90E-02	1.01	4.85E+00	99	210	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS34	03/14/05	Benzo(a)pyrene	4.60E-02	1.52	3.03E+00	99	210	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-3	03/28/96	Benzo(a)pyrene	4.22E-02	2.22	1.90E+00	99	210	mg/kg OC	<1	<1
EPA Site Inspection	DR044	08/12/98	Benzo(a)pyrene	4.00E-02	2.68	1.49E+00	99	210	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-16	03/28/96	Benzo(a)pyrene	3.59E-02	2.99	1.20E+00	99	210	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2232-A	04/20/11	Benzo(a)pyrene	3.30E-02	1.11	2.97E+00	99	210	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-4	03/28/96	Benzo(a)pyrene	3.15E-02	1.85	1.70E+00	99	210	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-5	03/28/96	Benzo(a)pyrene	3.08E-02	2.05	1.50E+00	99	210	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS23	01/18/05	Benzo(a)pyrene	2.90E-02	1.23	2.36E+00	99	210	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-18	03/28/96	Benzo(a)pyrene	2.86E-02	3.11	9.20E-01	99	210	mg/kg OC	<1	<1
LDWRI-Benthic	C2-2	08/26/04	Benzo(a)pyrene	2.60E-02	1.06	2.45E+00	99	210	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-10	03/28/96	Benzo(a)pyrene	2.57E-02	2.57	1.00E+00	99	210	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-15	03/28/96	Benzo(a)pyrene	2.34E-02	1.46	1.60E+00	99	210	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-13	03/28/96	Benzo(a)pyrene	2.19E-02	2.64	8.30E-01	99	210	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-11	03/28/96	Benzo(a)pyrene	2.19E-02	2.7	8.10E-01	99	210	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-12	03/28/96	Benzo(a)pyrene	2.19E-02	2.43	9.00E-01	99	210	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-1	03/28/96	Benzo(a)pyrene	2.14E-02	3.4	6.30E-01	99	210	mg/kg OC	<1	<1
LDWRI-Benthic	B3a	08/26/04	Benzo(a)pyrene	2.00E-02	1.36	1.47E+00	99	210	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-7	03/28/96	Benzo(a)pyrene	1.94E-02	1.76	1.10E+00	99	210	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-20	03/28/96	Benzo(a)pyrene	1.92E-02	1.13	1.70E+00	99	210	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-2	03/28/96	Benzo(a)pyrene	1.91E-02	1.74	1.10E+00	99	210	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2233-U[a]	04/20/11	Benzo(a)pyrene	1.70E-02 J	0.38		1.6	3.0	mg/kg DW	<1	<1
LDWRI-Benthic	C1[a]	08/26/04	Benzo(a)pyrene	1.60E-02	0.47		1.6	3.0	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-14	03/28/96	Benzo(a)pyrene	1.60E-02	1.68	9.50E-01	99	210	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-9	03/28/96	Benzo(a)pyrene	1.60E-02	1.68	9.50E-01	99	210	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-8	03/28/96	Benzo(a)pyrene	1.50E-02	1.78	8.40E-01	99	210	mg/kg OC	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
Seaboard Lumber-Phase 2 Investigation	SD-6	03/28/96	Benzo(a)pyrene	1.32E-02	1.79	7.40E-01	99	210	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-6	03/28/96	Benzo(a)pyrene	1.30E-02	1.79	7.26E-01	99	210	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-19	03/28/96	Benzo(a)pyrene	1.10E-02	2.75	4.00E-01	99	210	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS312[a]	10/03/06	Benzo(b)fluoranthene	3.00E+00	4.2		3.2	3.6	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS24[a]	03/14/05	Benzo(b)fluoranthene	2.10E+00	5.99		3.2	3.6	mg/kg DW	<1	<1
EPA Site Inspection	DR044	08/12/98	Benzo(b)fluoranthene	2.00E+00	2.08	9.62E+01	230	450	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS311[a]	10/03/06	Benzo(b)fluoranthene	1.90E+00	4.36		3.2	3.6	mg/kg DW	<1	<1
EPA Site Inspection	DR033	08/11/98	Benzo(b)fluoranthene	1.60E+00	1.72	9.30E+01	230	450	mg/kg OC	<1	<1
LDW Dioxin Sampling	LDW-SS509[a]	12/15/09	Benzo(b)fluoranthene	1.60E+00 J	7.08		3.2	3.6	mg/kg DW	<1	<1
Terminal 105 Site Assessment	SS1	11/23/93	Benzo(b)fluoranthene	1.48E+00	1.9	7.79E+01	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR038	09/02/98	Benzo(b)fluoranthene	1.40E+00	2.62	5.34E+01	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR040[a]	08/12/98	Benzo(b)fluoranthene	1.30E+00	4.69	2.77E+01	3.2	3.6	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS9	03/14/05	Benzo(b)fluoranthene	9.00E-01	1.79	5.03E+01	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR047	09/14/98	Benzo(b)fluoranthene	8.50E-01	1.4	6.07E+01	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR035	08/11/98	Benzo(b)fluoranthene	7.70E-01	2.29	3.36E+01	230	450	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS310	10/03/06	Benzo(b)fluoranthene	6.40E-01	1.63	3.93E+01	230	450	mg/kg OC	<1	<1
Ecology SPI	TRI-015T	08/08/06	Benzo(b)fluoranthene	6.31E-01	2.16	2.92E+01	230	450	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS309	10/03/06	Benzo(b)fluoranthene	5.90E-01	2.02	2.92E+01	230	450	mg/kg OC	<1	<1
Ecology SPI	TRI-010	08/08/06	Benzo(b)fluoranthene	5.88E-01	2.2	2.67E+01	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR031	08/11/98	Benzo(b)fluoranthene	5.80E-01	2.07	2.80E+01	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR037	08/18/98	Benzo(b)fluoranthene	5.80E-01	2.02	2.87E+01	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR077	08/24/98	Benzo(b)fluoranthene	5.80E-01	1.61	3.60E+01	230	450	mg/kg OC	<1	<1
Puget Sound Sediment Quality/ NOAA Site Characterization	203	06/22/98	Benzo(b)fluoranthene	5.58E-01 J	1.5	3.72E+01	230	450	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS16	03/08/05	Benzo(b)fluoranthene	5.40E-01	2.11	2.56E+01	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR034	08/11/98	Benzo(b)fluoranthene	5.10E-01	1.84	2.77E+01	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR048	08/12/98	Benzo(b)fluoranthene	5.10E-01	2.03	2.51E+01	230	450	mg/kg OC	<1	<1
Ecology SPI	SPI-108	08/11/06	Benzo(b)fluoranthene	4.97E-01	1.55	3.21E+01	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR068	08/18/98	Benzo(b)fluoranthene	4.80E-01	2.36	2.03E+01	230	450	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS308	10/03/06	Benzo(b)fluoranthene	4.80E-01	1.86	2.58E+01	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR041	08/12/98	Benzo(b)fluoranthene	4.60E-01	2.43	1.89E+01	230	450	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS19	03/08/05	Benzo(b)fluoranthene	4.60E-01	2.07	2.22E+01	230	450	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS36	01/24/05	Benzo(b)fluoranthene	4.60E-01	1.89	2.43E+01	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR066	08/18/98	Benzo(b)fluoranthene	4.40E-01	2.25	1.96E+01	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR079	08/24/98	Benzo(b)fluoranthene	4.20E-01	2.18	1.93E+01	230	450	mg/kg OC	<1	<1
Ecology SPI	TRI-016	08/08/06	Benzo(b)fluoranthene	4.02E-01	2.38	1.69E+01	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR078	08/24/98	Benzo(b)fluoranthene	4.00E-01	2.07	1.93E+01	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR039	08/12/98	Benzo(b)fluoranthene	3.80E-01	2.43	1.56E+01	230	450	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	03/06/97	Benzo(b)fluoranthene	3.70E-01 J	2.03	1.82E+01	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR032	08/11/98	Benzo(b)fluoranthene	3.60E-01	1.79	2.01E+01	230	450	mg/kg OC	<1	<1
Harbor Island RI	K-05	09/27/91	Benzo(b)fluoranthene	3.45E-01 J	1.6	2.16E+01	230	450	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	03/12/97	Benzo(b)fluoranthene	3.41E-01	2.27	1.50E+01	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR042[a]	08/12/98	Benzo(b)fluoranthene	3.40E-01	9.23	3.68E+00	3.2	3.6	mg/kg DW	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
EPA Site Inspection	DR069	08/18/98	Benzo(b)fluoranthene	3.40E-01	1.92	1.77E+01	230	450	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS10	01/17/05	Benzo(b)fluoranthene	3.40E-01	1.63	2.09E+01	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR070	08/12/98	Benzo(b)fluoranthene	3.30E-01	1.75	1.89E+01	230	450	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	05/01/97	Benzo(b)fluoranthene	2.96E-01	2.07	1.43E+01	230	450	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-2	09/24/97	Benzo(b)fluoranthene	2.93E-01	2.09	1.40E+01	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR080	08/24/98	Benzo(b)fluoranthene	2.90E-01	1.82	1.59E+01	230	450	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	04/17/97	Benzo(b)fluoranthene	2.85E-01	2.17	1.31E+01	230	450	mg/kg OC	<1	<1
LDWRI-Benthic	B2a	08/13/04	Benzo(b)fluoranthene	2.80E-01	1.97	1.42E+01	230	450	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-1	09/24/97	Benzo(b)fluoranthene	2.80E-01 J	2.59	1.08E+01	230	450	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	04/03/97	Benzo(b)fluoranthene	2.72E-01	2.09	1.30E+01	230	450	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-1	09/24/97	Benzo(b)fluoranthene	2.50E-01 J	2.44	1.02E+01	230	450	mg/kg OC	<1	<1
Terminal 105 Site Assessment	SS2	11/17/93	Benzo(b)fluoranthene	2.50E-01	0.98	2.55E+01	230	450	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-2	09/24/97	Benzo(b)fluoranthene	2.32E-01	2.06	1.12E+01	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR046	08/12/98	Benzo(b)fluoranthene	2.20E-01	2.26	9.73E+00	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR067	08/18/98	Benzo(b)fluoranthene	2.20E-01	0.82	2.68E+01	230	450	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-1	09/24/97	Benzo(b)fluoranthene	2.20E-01	2.29	9.61E+00	230	450	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS28	01/24/05	Benzo(b)fluoranthene	2.10E-01	1.22	1.72E+01	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR043[a]	08/12/98	Benzo(b)fluoranthene	1.90E-01	4.48	4.24E+00	3.2	3.6	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS3	03/09/05	Benzo(b)fluoranthene	1.90E-01	0.723	2.63E+01	230	450	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-2	09/24/97	Benzo(b)fluoranthene	1.70E-01	2.03	8.37E+00	230	450	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS12	01/17/05	Benzo(b)fluoranthene	1.70E-01	1.88	9.04E+00	230	450	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-3	09/24/97	Benzo(b)fluoranthene	1.60E-01 J	2.24	7.14E+00	230	450	mg/kg OC	<1	<1
Terminal 105 Site Assessment	SS3[a]	11/17/93	Benzo(b)fluoranthene	1.54E-01 J	0.13		3.2	3.2	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	KI-3	09/24/97	Benzo(b)fluoranthene	1.45E-01 J	2.145	6.76E+00	230	450	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS15	01/17/05	Benzo(b)fluoranthene	1.40E-01	1.79	7.82E+00	230	450	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS29	03/14/05	Benzo(b)fluoranthene	1.40E-01	1.68	8.33E+00	230	450	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-3	09/24/97	Benzo(b)fluoranthene	1.30E-01 J	2.05	6.34E+00	230	450	mg/kg OC	<1	<1
LDWRI-Benthic	C2-1	08/26/04	Benzo(b)fluoranthene	1.20E-01	1.82	6.59E+00	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR044	08/12/98	Benzo(b)fluoranthene	1.20E-01	2.22	5.41E+00	230	450	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS313	10/04/06	Benzo(b)fluoranthene	1.20E-01	1.95	6.15E+00	230	450	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS314	10/04/06	Benzo(b)fluoranthene	1.20E-01	2.81	4.27E+00	230	450	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-17	03/28/96	Benzo(b)fluoranthene	1.14E-01	2.66	4.30E+00	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR045	09/14/98	Benzo(b)fluoranthene	1.10E-01	2.92	3.77E+00	230	450	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS315	10/04/06	Benzo(b)fluoranthene	1.00E-01	1.74	5.75E+00	230	450	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS33	01/26/05	Benzo(b)fluoranthene	1.00E-01	1.66	6.02E+00	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR036	08/12/98	Benzo(b)fluoranthene	9.00E-02	3.37	2.67E+00	230	450	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS14	01/17/05	Benzo(b)fluoranthene	8.60E-02	0.79	1.09E+01	230	450	mg/kg OC	<1	<1
LDWRI-Benthic	C3-1	08/27/04	Benzo(b)fluoranthene	8.50E-02	0.93	9.14E+00	230	450	mg/kg OC	<1	<1
LDWRI-Benthic	C3-2	08/27/04	Benzo(b)fluoranthene	7.90E-02	1.31	6.03E+00	230	450	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS34	03/14/05	Benzo(b)fluoranthene	5.90E-02	1.52	3.88E+00	230	450	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-3	03/28/96	Benzo(b)fluoranthene	4.88E-02	2.22	2.20E+00	230	450	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-4	03/28/96	Benzo(b)fluoranthene	4.81E-02	1.85	2.60E+00	230	450	mg/kg OC	<1	<1
LDWRI-Benthic	B1a	08/13/04	Benzo(b)fluoranthene	4.60E-02	1.7	2.71E+00	230	450	mg/kg OC	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
LDWRI-Surface Sediment Round 1	LDW-SS23	01/18/05	Benzo(b)fluoranthene	4.40E-02	1.23	3.58E+00	230	450	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-16	03/28/96	Benzo(b)fluoranthene	4.19E-02	2.99	1.40E+00	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR044	08/12/98	Benzo(b)fluoranthene	4.00E-02	2.68	1.49E+00	230	450	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-5	03/28/96	Benzo(b)fluoranthene	3.49E-02	2.05	1.70E+00	230	450	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-18	03/28/96	Benzo(b)fluoranthene	3.42E-02	3.11	1.10E+00	230	450	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-15	03/28/96	Benzo(b)fluoranthene	3.21E-02	1.46	2.20E+00	230	450	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-10	03/28/96	Benzo(b)fluoranthene	3.08E-02	2.57	1.20E+00	230	450	mg/kg OC	<1	<1
LDWRI-Benthic	B3a	08/26/04	Benzo(b)fluoranthene	2.70E-02	1.36	1.99E+00	230	450	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-12	03/28/96	Benzo(b)fluoranthene	2.67E-02	2.43	1.10E+00	230	450	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-13	03/28/96	Benzo(b)fluoranthene	2.64E-02	2.64	1.00E+00	230	450	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-1	03/28/96	Benzo(b)fluoranthene	2.52E-02	3.4	7.40E-01	230	450	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-11	03/28/96	Benzo(b)fluoranthene	2.43E-02	2.7	9.00E-01	230	450	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-20	03/28/96	Benzo(b)fluoranthene	2.15E-02	1.13	1.90E+00	230	450	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-7	03/28/96	Benzo(b)fluoranthene	2.11E-02	1.76	1.20E+00	230	450	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-2	03/28/96	Benzo(b)fluoranthene	2.09E-02	1.74	1.20E+00	230	450	mg/kg OC	<1	<1
LDWRI-Benthic	C2-2	08/26/04	Benzo(b)fluoranthene	2.00E-02	1.06	1.89E+00	230	450	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-8	03/28/96	Benzo(b)fluoranthene	1.96E-02	1.78	1.10E+00	230	450	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-14	03/28/96	Benzo(b)fluoranthene	1.85E-02	1.68	1.10E+00	230	450	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-19	03/28/96	Benzo(b)fluoranthene	1.73E-02	2.75	6.30E-01	230	450	mg/kg OC	<1	<1
LDWRI-Benthic	C1[a]	08/26/04	Benzo(b)fluoranthene	1.70E-02	0.47		3.2	3.6	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-9	03/28/96	Benzo(b)fluoranthene	1.68E-02	1.68	1.00E+00	230	450	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-6	03/28/96	Benzo(b)fluoranthene	1.43E-02	1.79	8.00E-01	230	450	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-6	03/28/96	Benzo(b)fluoranthene	1.40E-02	1.79	7.82E-01	230	450	mg/kg OC	<1	<1
Puget Sound Sediment Quality/ NOAA Site Characterization	203	06/22/98	Benzo(e)pyrene	2.77E-01	1.5	1.85E+01					
LDWRI-Benthic	B2a	08/13/04	Benzo(e)pyrene	2.10E-01	1.97	1.07E+01					
LDWRI-Benthic	B1a	08/13/04	Benzo(e)pyrene	4.30E-02	1.7	2.53E+00					
LDWRI-Benthic	B3a	08/26/04	Benzo(e)pyrene	1.60E-02	1.36	1.18E+00					
LDWRI-Surface Sediment Round 3	LDW-SS312[a]	10/03/06	Benzo(g,h,i)perylene	1.60E+00	4.2		0.67	0.72	mg/kg DW	2.4	2.2
LDW Dioxin Sampling	LDW-SS509[a]	12/15/09	Benzo(g,h,i)perylene	1.40E+00	7.08		0.67	0.72	mg/kg DW	2.1	1.9
LDWRI-Surface Sediment Round 2	LDW-SS24[a]	03/14/05	Benzo(g,h,i)perylene	1.10E+00	5.99		0.67	0.72	mg/kg DW	1.6	1.5
EPA Site Inspection	DR033	08/11/98	Benzo(g,h,i)perylene	6.20E-01	1.72	3.60E+01	31	78	mg/kg OC	1.2	<1
LDWRI-Surface Sediment Round 2	LDW-SS9	03/14/05	Benzo(g,h,i)perylene	5.10E-01	1.79	2.85E+01	31	78	mg/kg OC	<1	<1
EPA Site Inspection	DR038	09/02/98	Benzo(g,h,i)perylene	4.80E-01	2.62	1.83E+01	31	78	mg/kg OC	<1	<1
EPA Site Inspection	DR035	08/11/98	Benzo(g,h,i)perylene	4.10E-01	2.29	1.79E+01	31	78	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS311[a]	10/03/06	Benzo(g,h,i)perylene	4.10E-01	4.36		0.67	0.72	mg/kg DW	<1	<1
EPA Site Inspection	DR044	08/12/98	Benzo(g,h,i)perylene	3.80E-01	2.08	1.83E+01	31	78	mg/kg OC	<1	<1
EPA Site Inspection	DR040[a]	08/12/98	Benzo(g,h,i)perylene	3.70E-01	4.69	7.89E+00	0.67	0.72	mg/kg DW	<1	<1
EPA Site Inspection	DR031	08/11/98	Benzo(g,h,i)perylene	3.30E-01	2.07	1.59E+01	31	78	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2150-A[a]	04/20/11	Benzo(g,h,i)perylene	3.20E-01	5.62		0.67	0.72	mg/kg DW	<1	<1
Ecology SPI	SPI-108	08/11/06	Benzo(g,h,i)perylene	3.08E-01 J	1.55	1.99E+01	31	78	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2150-A[a]	04/20/11	Benzo(g,h,i)perylene	3.00E-01	9.22		0.67	0.72	mg/kg DW	<1	<1
Ecology SPI	TRI-015T	08/08/06	Benzo(g,h,i)perylene	2.94E-01	2.16	1.36E+01	31	78	mg/kg OC	<1	<1
Ecology SPI	TRI-010	08/08/06	Benzo(g,h,i)perylene	2.86E-01	2.2	1.30E+01	31	78	mg/kg OC	<1	<1
EPA Site Inspection	DR047	09/14/98	Benzo(g,h,i)perylene	2.70E-01	1.4	1.93E+01	31	78	mg/kg OC	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
Puget Sound Sediment Quality/ NOAA Site Characterization	203	06/22/98	Benzo(g,h,i)perylene	2.24E-01	1.5	1.49E+01	31	78	mg/kg OC	<1	<1
EPA Site Inspection	DR034	08/11/98	Benzo(g,h,i)perylene	2.20E-01	1.84	1.20E+01	31	78	mg/kg OC	<1	<1
EPA Site Inspection	DR037	08/18/98	Benzo(g,h,i)perylene	2.20E-01	2.02	1.09E+01	31	78	mg/kg OC	<1	<1
EPA Site Inspection	DR068	08/18/98	Benzo(g,h,i)perylene	2.20E-01	2.36	9.32E+00	31	78	mg/kg OC	<1	<1
EPA Site Inspection	DR041	08/12/98	Benzo(g,h,i)perylene	2.10E-01	2.43	8.64E+00	31	78	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	04/03/97	Benzo(g,h,i)perylene	2.10E-01 J	2.17	9.68E+00	31	78	mg/kg OC	<1	<1
Ecology SPI	TRI-016	08/08/06	Benzo(g,h,i)perylene	2.00E-01	2.38	8.40E+00	31	78	mg/kg OC	<1	<1
EPA Site Inspection	DR066	08/18/98	Benzo(g,h,i)perylene	1.90E-01	2.25	8.44E+00	31	78	mg/kg OC	<1	<1
EPA Site Inspection	DR042[a]	08/12/98	Benzo(g,h,i)perylene	1.80E-01	9.23	1.95E+00	0.67	0.72	mg/kg DW	<1	<1
EPA Site Inspection	DR048	08/12/98	Benzo(g,h,i)perylene	1.80E-01	2.03	8.87E+00	31	78	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS310	10/03/06	Benzo(g,h,i)perylene	1.80E-01	1.63	1.10E+01	31	78	mg/kg OC	<1	<1
EPA Site Inspection	DR032	08/11/98	Benzo(g,h,i)perylene	1.70E-01	1.79	9.50E+00	31	78	mg/kg OC	<1	<1
EPA Site Inspection	DR070	08/12/98	Benzo(g,h,i)perylene	1.70E-01	1.75	9.71E+00	31	78	mg/kg OC	<1	<1
EPA Site Inspection	DR077	08/24/98	Benzo(g,h,i)perylene	1.70E-01	1.61	1.06E+01	31	78	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2144-A	03/14/11	Benzo(g,h,i)perylene	1.70E-01	0.849	2.00E+01	31	78	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS308	10/03/06	Benzo(g,h,i)perylene	1.70E-01	1.86	9.14E+00	31	78	mg/kg OC	<1	<1
EPA Site Inspection	DR069	08/18/98	Benzo(g,h,i)perylene	1.60E-01	1.92	8.33E+00	31	78	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2157-A	03/24/11	Benzo(g,h,i)perylene	1.60E-01	1.81	8.84E+00	31	78	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS309	10/03/06	Benzo(g,h,i)perylene	1.60E-01	2.02	7.92E+00	31	78	mg/kg OC	<1	<1
EPA Site Inspection	DR079	08/24/98	Benzo(g,h,i)perylene	1.50E-01	2.18	6.88E+00	31	78	mg/kg OC	<1	<1
LDWRI-Benthic	B2a	08/13/04	Benzo(g,h,i)perylene	1.40E-01	1.97	7.11E+00	31	78	mg/kg OC	<1	<1
EPA Site Inspection	DR039	08/12/98	Benzo(g,h,i)perylene	1.40E-01	2.43	5.76E+00	31	78	mg/kg OC	<1	<1
EPA Site Inspection	DR078	08/24/98	Benzo(g,h,i)perylene	1.30E-01	2.07	6.28E+00	31	78	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-3	09/24/97	Benzo(g,h,i)perylene	1.30E-01 J	2.24	5.80E+00	31	78	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SSSWCSO-U	04/08/11	Benzo(g,h,i)perylene	1.30E-01	1.2	1.08E+01	31	78	mg/kg OC	<1	<1
EPA Site Inspection	DR046	08/12/98	Benzo(g,h,i)perylene	1.20E-01	2.26	5.31E+00	31	78	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-2	09/24/97	Benzo(g,h,i)perylene	1.20E-01 J	2.09	5.74E+00	31	78	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2147-D	03/14/11	Benzo(g,h,i)perylene	1.20E-01	0.782	1.53E+01	31	78	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SSSWCSO-A	04/08/11	Benzo(g,h,i)perylene	1.20E-01	2.69	4.46E+00	31	78	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-2	09/24/97	Benzo(g,h,i)perylene	1.15E-01 J	2.06	5.58E+00	31	78	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-2	09/24/97	Benzo(g,h,i)perylene	1.10E-01 J	2.03	5.42E+00	31	78	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2232-U	04/20/11	Benzo(g,h,i)perylene	1.10E-01	1.63	6.75E+00	31	78	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	03/06/97	Benzo(g,h,i)perylene	1.10E-01 J	2.09	5.26E+00	31	78	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	03/12/97	Benzo(g,h,i)perylene	1.10E-01 J	2.27	4.85E+00	31	78	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	04/17/97	Benzo(g,h,i)perylene	1.10E-01 J	2.03	5.42E+00	31	78	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	05/01/97	Benzo(g,h,i)perylene	1.10E-01 J	2.07	5.31E+00	31	78	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-3	09/24/97	Benzo(g,h,i)perylene	1.08E-01 J	2.145	5.01E+00	31	78	mg/kg OC	<1	<1
EPA Site Inspection	DR067	08/18/98	Benzo(g,h,i)perylene	1.00E-01	0.82	1.22E+01	31	78	mg/kg OC	<1	<1
EPA Site Inspection	DR080	08/24/98	Benzo(g,h,i)perylene	1.00E-01	1.82	5.49E+00	31	78	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-1	09/24/97	Benzo(g,h,i)perylene	1.00E-01 J	2.29	4.37E+00	31	78	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS16	03/08/05	Benzo(g,h,i)perylene	1.00E-01	2.11	4.74E+00	31	78	mg/kg OC	<1	<1
Terminal 105 Site Assessment	SS2	11/17/93	Benzo(g,h,i)perylene	9.60E-02 J	0.98	9.80E+00	31	78	mg/kg OC	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
EPA Site Inspection	DR043[a]	08/12/98	Benzo(g,h,i)perylene	9.00E-02	4.48	2.01E+00	0.67	0.72	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS36	01/24/05	Benzo(g,h,i)perylene	9.00E-02 J	1.89	4.76E+00	31	78	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-1	09/24/97	Benzo(g,h,i)perylene	8.70E-02 J	2.44	3.57E+00	31	78	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS314	10/04/06	Benzo(g,h,i)perylene	8.60E-02	2.81	3.06E+00	31	78	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-3	09/24/97	Benzo(g,h,i)perylene	8.50E-02 J	2.05	4.15E+00	31	78	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2233-D	04/20/11	Benzo(g,h,i)perylene	8.20E-02	0.617	1.33E+01	31	78	mg/kg OC	<1	<1
LDWRI-Benthic	C2-1	08/26/04	Benzo(g,h,i)perylene	8.00E-02	1.82	4.40E+00	31	78	mg/kg OC	<1	<1
LDWRI-Benthic	C3-2	08/27/04	Benzo(g,h,i)perylene	7.90E-02	1.31	6.03E+00	31	78	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2146-A	03/14/11	Benzo(g,h,i)perylene	7.90E-02	1.01	7.82E+00	31	78	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS19	03/08/05	Benzo(g,h,i)perylene	7.80E-02	2.07	3.77E+00	31	78	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-1	09/24/97	Benzo(g,h,i)perylene	7.40E-02 J	2.59	2.86E+00	31	78	mg/kg OC	<1	<1
EPA Site Inspection	DR036	08/12/98	Benzo(g,h,i)perylene	7.00E-02	3.37	2.08E+00	31	78	mg/kg OC	<1	<1
EPA Site Inspection	DR045	09/14/98	Benzo(g,h,i)perylene	7.00E-02	2.92	2.40E+00	31	78	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2150-A[a]	04/20/11	Benzo(g,h,i)perylene	6.90E-02	4.42		0.67	0.72	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS313	10/04/06	Benzo(g,h,i)perylene	6.50E-02	1.95	3.33E+00	31	78	mg/kg OC	<1	<1
EPA Site Inspection	DR044	08/12/98	Benzo(g,h,i)perylene	6.00E-02	2.22	2.70E+00	31	78	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS28	01/24/05	Benzo(g,h,i)perylene	5.90E-02 J	1.22	4.84E+00	31	78	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS3	03/09/05	Benzo(g,h,i)perylene	5.70E-02	0.723	7.88E+00	31	78	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-4	09/24/97	Benzo(g,h,i)perylene	4.70E-02 J	0.71	6.62E+00	31	78	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS12	01/17/05	Benzo(g,h,i)perylene	4.70E-02	1.88	2.50E+00	31	78	mg/kg OC	<1	<1
LDWRI-Benthic	B1a	08/13/04	Benzo(g,h,i)perylene	4.00E-02	1.7	2.35E+00	31	78	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS10	01/17/05	Benzo(g,h,i)perylene	3.90E-02	1.63	2.39E+00	31	78	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS29	03/14/05	Benzo(g,h,i)perylene	3.90E-02	1.68	2.32E+00	31	78	mg/kg OC	<1	<1
LDWRI-Benthic	C3-1	08/27/04	Benzo(g,h,i)perylene	3.60E-02	0.93	3.87E+00	31	78	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-4	09/24/97	Benzo(g,h,i)perylene	3.48E-02 J	0.81	4.29E+00	31	78	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2232-A	04/20/11	Benzo(g,h,i)perylene	3.40E-02	1.11	3.06E+00	31	78	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS14	01/17/05	Benzo(g,h,i)perylene	3.20E-02	0.79	4.05E+00	31	78	mg/kg OC	<1	<1
Terminal 105 Site Assessment	SS3[a]	11/17/93	Benzo(g,h,i)perylene	3.20E-02 J	0.13		0.67	0.72	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS315	10/04/06	Benzo(g,h,i)perylene	3.10E-02 J	1.74	1.78E+00	31	78	mg/kg OC	<1	<1
EPA Site Inspection	DR044	08/12/98	Benzo(g,h,i)perylene	3.00E-02	2.68	1.12E+00	31	78	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-17	03/28/96	Benzo(g,h,i)perylene	2.93E-02	2.66	1.10E+00	31	78	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS15	01/17/05	Benzo(g,h,i)perylene	2.80E-02	1.79	1.56E+00	31	78	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-3	03/28/96	Benzo(g,h,i)perylene	1.82E-02	2.22	8.20E-01	31	78	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2233-U[a]	04/20/11	Benzo(g,h,i)perylene	1.80E-02	0.38		0.67	0.72	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS33	01/26/05	Benzo(g,h,i)perylene	1.60E-02 J	1.66	9.64E-01	31	78	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-10	03/28/96	Benzo(g,h,i)perylene	1.49E-02	2.57	5.80E-01	31	78	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-16	03/28/96	Benzo(g,h,i)perylene	1.41E-02	2.99	4.70E-01	31	78	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-11	03/28/96	Benzo(g,h,i)perylene	1.32E-02	2.7	4.90E-01	31	78	mg/kg OC	<1	<1
LDWRI-Benthic	B3a	08/26/04	Benzo(g,h,i)perylene	1.30E-02	1.36	9.56E-01	31	78	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-18	03/28/96	Benzo(g,h,i)perylene	1.28E-02	3.11	4.10E-01	31	78	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-5	03/28/96	Benzo(g,h,i)perylene	1.25E-02	2.05	6.10E-01	31	78	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-4	03/28/96	Benzo(g,h,i)perylene	1.20E-02	1.85	6.50E-01	31	78	mg/kg OC	<1	<1
LDWRI-Benthic	C1[a]	08/26/04	Benzo(g,h,i)perylene	1.20E-02	0.47		0.67	0.72	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-15	03/28/96	Benzo(g,h,i)perylene	1.08E-02	1.46	7.40E-01	31	78	mg/kg OC	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
Seaboard Lumber-Phase 2 Investigation	SD-1	03/28/96	Benzo(g,h,i)perylene	1.02E-02	3.4	3.00E-01	31	78	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-12	03/28/96	Benzo(g,h,i)perylene	1.02E-02	2.43	4.20E-01	31	78	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-7	03/28/96	Benzo(g,h,i)perylene	1.02E-02	1.76	5.80E-01	31	78	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-13	03/28/96	Benzo(g,h,i)perylene	9.76E-03	2.64	3.70E-01	31	78	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-9	03/28/96	Benzo(g,h,i)perylene	8.90E-03	1.68	5.30E-01	31	78	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-8	03/28/96	Benzo(g,h,i)perylene	8.72E-03	1.78	4.90E-01	31	78	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-20	03/28/96	Benzo(g,h,i)perylene	8.13E-03	1.13	7.19E-01	31	78	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-2	03/28/96	Benzo(g,h,i)perylene	7.83E-03	1.74	4.50E-01	31	78	mg/kg OC	<1	<1
LDWRI-Benthic	C2-2	08/26/04	Benzo(g,h,i)perylene	7.80E-03	1.06	7.36E-01	31	78	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-6	03/28/96	Benzo(g,h,i)perylene	7.70E-03	1.79	4.30E-01	31	78	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-6	03/28/96	Benzo(g,h,i)perylene	7.69E-03	1.79	4.30E-01	31	78	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-14	03/28/96	Benzo(g,h,i)perylene	7.05E-03	1.68	4.20E-01	31	78	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-19	03/28/96	Benzo(g,h,i)perylene	6.05E-03	2.75	2.20E-01	31	78	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS24[a]	03/14/05	Benzo(k)fluoranthene	1.70E+00	5.99		3.2	3.6	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS312[a]	10/03/06	Benzo(k)fluoranthene	1.70E+00	4.2		3.2	3.6	mg/kg DW	<1	<1
LDW Dioxin Sampling	LDW-SS509[a]	12/15/09	Benzo(k)fluoranthene	1.60E+00 J	7.08		3.2	3.6	mg/kg DW	<1	<1
EPA Site Inspection	DR044	08/12/98	Benzo(k)fluoranthene	1.30E+00	2.08	6.25E+01	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR033	08/11/98	Benzo(k)fluoranthene	1.10E+00	1.72	6.40E+01	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR038	09/02/98	Benzo(k)fluoranthene	9.80E-01	2.62	3.74E+01	230	450	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS311[a]	10/03/06	Benzo(k)fluoranthene	9.20E-01	4.36		3.2	3.6	mg/kg DW	<1	<1
EPA Site Inspection	DR040[a]	08/12/98	Benzo(k)fluoranthene	7.80E-01	4.69	1.66E+01	3.2	3.6	mg/kg DW	<1	<1
EPA Site Inspection	DR047	09/14/98	Benzo(k)fluoranthene	7.40E-01	1.4	5.29E+01	230	450	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS9	03/14/05	Benzo(k)fluoranthene	6.70E-01	1.79	3.74E+01	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR035	08/11/98	Benzo(k)fluoranthene	6.10E-01	2.29	2.66E+01	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR077	08/24/98	Benzo(k)fluoranthene	4.90E-01	1.61	3.04E+01	230	450	mg/kg OC	<1	<1
Ecology SPI	TRI-010	08/08/06	Benzo(k)fluoranthene	4.61E-01	2.2	2.10E+01	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR031	08/11/98	Benzo(k)fluoranthene	4.60E-01	2.07	2.22E+01	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR037	08/18/98	Benzo(k)fluoranthene	4.40E-01	2.02	2.18E+01	230	450	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS36	01/24/05	Benzo(k)fluoranthene	4.40E-01	1.89	2.33E+01	230	450	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS16	03/08/05	Benzo(k)fluoranthene	4.30E-01	2.11	2.04E+01	230	450	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS310	10/03/06	Benzo(k)fluoranthene	4.20E-01	1.63	2.58E+01	230	450	mg/kg OC	<1	<1
Terminal 105 Site Assessment	SS1	11/23/93	Benzo(k)fluoranthene	4.20E-01 J	1.9	2.21E+01	230	450	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS308	10/03/06	Benzo(k)fluoranthene	4.10E-01	1.86	2.20E+01	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR048	08/12/98	Benzo(k)fluoranthene	4.00E-01	2.03	1.97E+01	230	450	mg/kg OC	<1	<1
Ecology SPI	TRI-015T	08/08/06	Benzo(k)fluoranthene	3.96E-01	2.16	1.83E+01	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR034	08/11/98	Benzo(k)fluoranthene	3.80E-01	1.84	2.07E+01	230	450	mg/kg OC	<1	<1
Ecology SPI	SPI-108	08/11/06	Benzo(k)fluoranthene	3.78E-01	1.55	2.44E+01	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR079	08/24/98	Benzo(k)fluoranthene	3.60E-01	2.18	1.65E+01	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR078	08/24/98	Benzo(k)fluoranthene	3.50E-01	2.07	1.69E+01	230	450	mg/kg OC	<1	<1
Harbor Island RI	K-05	09/27/91	Benzo(k)fluoranthene	3.45E-01 J	1.6	2.16E+01	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR041	08/12/98	Benzo(k)fluoranthene	3.40E-01	2.43	1.40E+01	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR066	08/18/98	Benzo(k)fluoranthene	3.40E-01	2.25	1.51E+01	230	450	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS19	03/08/05	Benzo(k)fluoranthene	3.40E-01	2.07	1.64E+01	230	450	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS309	10/03/06	Benzo(k)fluoranthene	3.40E-01	2.02	1.68E+01	230	450	mg/kg OC	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
Ecology SPI	TRI-016	08/08/06	Benzo(k)fluoranthene	3.29E-01	2.38	1.38E+01	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR068	08/18/98	Benzo(k)fluoranthene	3.20E-01	2.36	1.36E+01	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR032	08/11/98	Benzo(k)fluoranthene	3.00E-01	1.79	1.68E+01	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR042[a]	08/12/98	Benzo(k)fluoranthene	3.00E-01	9.23	3.25E+00	3.2	3.6	mg/kg DW	<1	<1
EPA Site Inspection	DR039	08/12/98	Benzo(k)fluoranthene	2.90E-01	2.43	1.19E+01	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR069	08/18/98	Benzo(k)fluoranthene	2.80E-01	1.92	1.46E+01	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR070	08/12/98	Benzo(k)fluoranthene	2.70E-01	1.75	1.54E+01	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR046	08/12/98	Benzo(k)fluoranthene	2.40E-01	2.26	1.06E+01	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR080	08/24/98	Benzo(k)fluoranthene	2.40E-01	1.82	1.32E+01	230	450	mg/kg OC	<1	<1
Puget Sound Sediment Quality/ NOAA Site Characterization	203	06/22/98	Benzo(k)fluoranthene	2.22E-01	1.5	1.48E+01	230	450	mg/kg OC	<1	<1
LDWRI-Benthic	B2a	08/13/04	Benzo(k)fluoranthene	2.10E-01	1.97	1.07E+01	230	450	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS28	01/24/05	Benzo(k)fluoranthene	2.10E-01	1.22	1.72E+01	230	450	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS29	03/14/05	Benzo(k)fluoranthene	2.00E-01	1.68	1.19E+01	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR067	08/18/98	Benzo(k)fluoranthene	1.90E-01	0.82	2.32E+01	230	450	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS3	03/09/05	Benzo(k)fluoranthene	1.60E-01	0.723	2.21E+01	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR043[a]	08/12/98	Benzo(k)fluoranthene	1.50E-01	4.48	3.35E+00	3.2	3.6	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	KI-2	09/24/97	Benzo(k)fluoranthene	1.40E-01 J	2.09	6.70E+00	230	450	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	03/06/97	Benzo(k)fluoranthene	1.40E-01 J	2.07	6.76E+00	230	450	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	04/17/97	Benzo(k)fluoranthene	1.40E-01 J	2.09	6.70E+00	230	450	mg/kg OC	<1	<1
LDWRI-Benthic	C2-1	08/26/04	Benzo(k)fluoranthene	1.30E-01	1.82	7.14E+00	230	450	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS12	01/17/05	Benzo(k)fluoranthene	1.30E-01	1.88	6.91E+00	230	450	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	03/12/97	Benzo(k)fluoranthene	1.30E-01	2.27	5.73E+00	230	450	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	05/01/97	Benzo(k)fluoranthene	1.30E-01 J	2.03	6.40E+00	230	450	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS313	10/04/06	Benzo(k)fluoranthene	1.20E-01	1.95	6.15E+00	230	450	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	04/03/97	Benzo(k)fluoranthene	1.20E-01 J	2.17	5.53E+00	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR045	09/14/98	Benzo(k)fluoranthene	1.10E-01	2.92	3.77E+00	230	450	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS15	01/17/05	Benzo(k)fluoranthene	1.10E-01	1.79	6.15E+00	230	450	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-17	03/28/96	Benzo(k)fluoranthene	1.06E-01	2.66	4.00E+00	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR044	08/12/98	Benzo(k)fluoranthene	1.00E-01	2.22	4.50E+00	230	450	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-1	09/24/97	Benzo(k)fluoranthene	1.00E-01 J	2.59	3.86E+00	230	450	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS314	10/04/06	Benzo(k)fluoranthene	1.00E-01	2.81	3.56E+00	230	450	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-1	09/24/97	Benzo(k)fluoranthene	9.60E-02 J	2.44	3.93E+00	230	450	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-2	09/24/97	Benzo(k)fluoranthene	9.33E-02 J	2.06	4.53E+00	230	450	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-1	09/24/97	Benzo(k)fluoranthene	9.20E-02 J	2.29	4.02E+00	230	450	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS315	10/04/06	Benzo(k)fluoranthene	8.60E-02	1.74	4.94E+00	230	450	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS10	01/17/05	Benzo(k)fluoranthene	8.40E-02	1.63	5.15E+00	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR036	08/12/98	Benzo(k)fluoranthene	8.00E-02	3.37	2.37E+00	230	450	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS34	03/14/05	Benzo(k)fluoranthene	7.60E-02	1.52	5.00E+00	230	450	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS33	01/26/05	Benzo(k)fluoranthene	7.00E-02	1.66	4.22E+00	230	450	mg/kg OC	<1	<1
LDWRI-Benthic	C3-2	08/27/04	Benzo(k)fluoranthene	6.10E-02	1.31	4.66E+00	230	450	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-3	03/28/96	Benzo(k)fluoranthene	5.33E-02	2.22	2.40E+00	230	450	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS14	01/17/05	Benzo(k)fluoranthene	5.20E-02	0.79	6.58E+00	230	450	mg/kg OC	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
LDWRI-Benthic	B1a	08/13/04	Benzo(k)fluoranthene	5.00E-02	1.7	2.94E+00	230	450	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-16	03/28/96	Benzo(k)fluoranthene	4.78E-02	2.99	1.60E+00	230	450	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-4	03/28/96	Benzo(k)fluoranthene	4.26E-02	1.85	2.30E+00	230	450	mg/kg OC	<1	<1
LDWRI-Benthic	C3-1	08/27/04	Benzo(k)fluoranthene	4.00E-02	0.93	4.30E+00	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR044	08/12/98	Benzo(k)fluoranthene	4.00E-02	2.68	1.49E+00	230	450	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-10	03/28/96	Benzo(k)fluoranthene	3.60E-02	2.57	1.40E+00	230	450	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-5	03/28/96	Benzo(k)fluoranthene	3.49E-02	2.05	1.70E+00	230	450	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-18	03/28/96	Benzo(k)fluoranthene	3.42E-02	3.11	1.10E+00	230	450	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-15	03/28/96	Benzo(k)fluoranthene	3.07E-02	1.46	2.10E+00	230	450	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-1	03/28/96	Benzo(k)fluoranthene	3.03E-02	3.4	8.90E-01	230	450	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-11	03/28/96	Benzo(k)fluoranthene	2.97E-02	2.7	1.10E+00	230	450	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-12	03/28/96	Benzo(k)fluoranthene	2.92E-02	2.43	1.20E+00	230	450	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-2	03/28/96	Benzo(k)fluoranthene	2.78E-02	1.74	1.60E+00	230	450	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-13	03/28/96	Benzo(k)fluoranthene	2.64E-02	2.64	1.00E+00	230	450	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-7	03/28/96	Benzo(k)fluoranthene	2.64E-02	1.76	1.50E+00	230	450	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-20	03/28/96	Benzo(k)fluoranthene	2.37E-02	1.13	2.10E+00	230	450	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-14	03/28/96	Benzo(k)fluoranthene	2.02E-02	1.68	1.20E+00	230	450	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-9	03/28/96	Benzo(k)fluoranthene	2.02E-02	1.68	1.20E+00	230	450	mg/kg OC	<1	<1
LDWRI-Benthic	B3a	08/26/04	Benzo(k)fluoranthene	1.80E-02	1.36	1.32E+00	230	450	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-8	03/28/96	Benzo(k)fluoranthene	1.76E-02	1.78	9.90E-01	230	450	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-6	03/28/96	Benzo(k)fluoranthene	1.70E-02	1.79	9.50E-01	230	450	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-6	03/28/96	Benzo(k)fluoranthene	1.66E-02	1.79	9.30E-01	230	450	mg/kg OC	<1	<1
LDWRI-Benthic	C1[a]	08/26/04	Benzo(k)fluoranthene	1.60E-02	0.47		3.2	3.6	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-19	03/28/96	Benzo(k)fluoranthene	1.40E-02	2.75	5.10E-01	230	450	mg/kg OC	<1	<1
LDWRI-Benthic	C2-2	08/26/04	Benzo(k)fluoranthene	8.40E-03	1.06	7.92E-01	230	450	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS312[a]	10/03/06	Benzofluoranthenes (total calc'd)	4.70E+00	4.2		3.2	3.6	mg/kg DW	1.5	1.3
LDWRI-Surface Sediment Round 2	LDW-SS24[a]	03/14/05	Benzofluoranthenes (total calc'd)	3.80E+00	5.99		3.2	3.6	mg/kg DW	1.2	1.1
EPA Site Inspection	DR044	08/12/98	Benzofluoranthenes (total calc'd)	3.30E+00	2.08	1.59E+02	230	450	mg/kg OC	<1	<1
LDW Dioxin Sampling	LDW-SS509[a]	12/15/09	Benzofluoranthenes (total calc'd)	3.20E+00 J	7.08		3.2	3.6	mg/kg DW	1.0	<1
LDWRI-Surface Sediment Round 3	LDW-SS311[a]	10/03/06	Benzofluoranthenes (total calc'd)	2.80E+00	4.36		3.2	3.6	mg/kg DW	<1	<1
EPA Site Inspection	DR033	08/11/98	Benzofluoranthenes (total calc'd)	2.70E+00	1.72	1.57E+02	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR038	09/02/98	Benzofluoranthenes (total calc'd)	2.38E+00	2.62	9.08E+01	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR040[a]	08/12/98	Benzofluoranthenes (total calc'd)	2.08E+00	4.69	4.43E+01	3.2	3.6	mg/kg DW	<1	<1
EPA Site Inspection	DR047	09/14/98	Benzofluoranthenes (total calc'd)	1.59E+00	1.4	1.14E+02	230	450	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS9	03/14/05	Benzofluoranthenes (total calc'd)	1.57E+00	1.79	8.77E+01	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR035	08/11/98	Benzofluoranthenes (total calc'd)	1.38E+00	2.29	6.03E+01	230	450	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2150-A[a]	04/20/11	Benzofluoranthenes (total calc'd)	1.10E+00	5.62		3.2	3.6	mg/kg DW	<1	<1
EPA Site Inspection	DR077	08/24/98	Benzofluoranthenes (total calc'd)	1.07E+00	1.61	6.65E+01	230	450	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS310	10/03/06	Benzofluoranthenes (total calc'd)	1.06E+00	1.63	6.50E+01	230	450	mg/kg OC	<1	<1
Ecology SPI	TRI-010	08/08/06	Benzofluoranthenes (total calc'd)	1.05E+00	2.2	4.77E+01	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR031	08/11/98	Benzofluoranthenes (total calc'd)	1.04E+00	2.07	5.02E+01	230	450	mg/kg OC	<1	<1
Ecology SPI	TRI-015T	08/08/06	Benzofluoranthenes (total calc'd)	1.03E+00	2.16	4.75E+01	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR037	08/18/98	Benzofluoranthenes (total calc'd)	1.02E+00	2.02	5.05E+01	230	450	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS16	03/08/05	Benzofluoranthenes (total calc'd)	9.70E-01	2.11	4.60E+01	230	450	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS309	10/03/06	Benzofluoranthenes (total calc'd)	9.30E-01	2.02	4.60E+01	230	450	mg/kg OC	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
EPA Site Inspection	DR048	08/12/98	Benzofluoranthenes (total calc'd)	9.10E-01	2.03	4.48E+01	230	450	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS36	01/24/05	Benzofluoranthenes (total calc'd)	9.00E-01	1.89	4.76E+01	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR034	08/11/98	Benzofluoranthenes (total calc'd)	8.90E-01	1.84	4.84E+01	230	450	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS308	10/03/06	Benzofluoranthenes (total calc'd)	8.90E-01	1.86	4.78E+01	230	450	mg/kg OC	<1	<1
Ecology SPI	SPI-108	08/11/06	Benzofluoranthenes (total calc'd)	8.75E-01	1.55	5.65E+01	230	450	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SSSWCSO-U	04/08/11	Benzofluoranthenes (total calc'd)	8.30E-01	1.2	6.92E+01	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR041	08/12/98	Benzofluoranthenes (total calc'd)	8.00E-01	2.43	3.29E+01	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR068	08/18/98	Benzofluoranthenes (total calc'd)	8.00E-01	2.36	3.39E+01	230	450	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS19	03/08/05	Benzofluoranthenes (total calc'd)	8.00E-01	2.07	3.86E+01	230	450	mg/kg OC	<1	<1
Puget Sound Sediment Quality/□NOAA Site C	203	06/22/98	Benzofluoranthenes (total calc'd)	7.80E-01 J	1.5	5.20E+01	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR066	08/18/98	Benzofluoranthenes (total calc'd)	7.80E-01	2.25	3.47E+01	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR079	08/24/98	Benzofluoranthenes (total calc'd)	7.80E-01	2.18	3.58E+01	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR078	08/24/98	Benzofluoranthenes (total calc'd)	7.50E-01	2.07	3.62E+01	230	450	mg/kg OC	<1	<1
Ecology SPI	TRI-016	08/08/06	Benzofluoranthenes (total calc'd)	7.31E-01	2.38	3.07E+01	230	450	mg/kg OC	<1	<1
Harbor Island RI	K-05	09/27/91	Benzofluoranthenes (total calc'd)	6.90E-01 J	1.6	4.31E+01	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR039	08/12/98	Benzofluoranthenes (total calc'd)	6.70E-01	2.43	2.76E+01	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR032	08/11/98	Benzofluoranthenes (total calc'd)	6.60E-01	1.79	3.69E+01	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR042[a]	08/12/98	Benzofluoranthenes (total calc'd)	6.40E-01	9.23	6.93E+00	3.2	3.6	mg/kg DW	<1	<1
EPA Site Inspection	DR069	08/18/98	Benzofluoranthenes (total calc'd)	6.20E-01	1.92	3.23E+01	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR070	08/12/98	Benzofluoranthenes (total calc'd)	6.00E-01	1.75	3.43E+01	230	450	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2150-A[a]	04/20/11	Benzofluoranthenes (total calc'd)	5.90E-01	9.22		3.2	3.6	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SSSWCSO-A	04/08/11	Benzofluoranthenes (total calc'd)	5.80E-01	2.69	2.16E+01	230	450	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2157-A	03/24/11	Benzofluoranthenes (total calc'd)	5.60E-01	1.81	3.09E+01	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR080	08/24/98	Benzofluoranthenes (total calc'd)	5.30E-01	1.82	2.91E+01	230	450	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	03/06/97	Benzofluoranthenes (total calc'd)	5.10E-01	2.27	2.25E+01	230	450	mg/kg OC	<1	<1
LDWRI-Benthic	B2a	08/13/04	Benzofluoranthenes (total calc'd)	4.90E-01	1.97	2.49E+01	230	450	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	03/12/97	Benzofluoranthenes (total calc'd)	4.71E-01	2.09	2.25E+01	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR046	08/12/98	Benzofluoranthenes (total calc'd)	4.60E-01	2.26	2.04E+01	230	450	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-2	09/24/97	Benzofluoranthenes (total calc'd)	4.33E-01	2.09	2.07E+01	230	450	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	05/01/97	Benzofluoranthenes (total calc'd)	4.26E-01	2.03	2.10E+01	230	450	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	04/17/97	Benzofluoranthenes (total calc'd)	4.25E-01	2.07	2.05E+01	230	450	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS10	01/17/05	Benzofluoranthenes (total calc'd)	4.20E-01	1.63	2.58E+01	230	450	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS28	01/24/05	Benzofluoranthenes (total calc'd)	4.20E-01	1.22	3.44E+01	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR067	08/18/98	Benzofluoranthenes (total calc'd)	4.10E-01	0.82	5.00E+01	230	450	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	04/03/97	Benzofluoranthenes (total calc'd)	3.92E-01	2.17	1.81E+01	230	450	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-1	09/24/97	Benzofluoranthenes (total calc'd)	3.80E-01	2.59	1.47E+01	230	450	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS3	03/09/05	Benzofluoranthenes (total calc'd)	3.50E-01	0.723	4.84E+01	230	450	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-1	09/24/97	Benzofluoranthenes (total calc'd)	3.46E-01 J	2.44	1.42E+01	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR043[a]	08/12/98	Benzofluoranthenes (total calc'd)	3.40E-01	4.48	7.59E+00	3.2	3.6	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2232-U	04/20/11	Benzofluoranthenes (total calc'd)	3.40E-01	1.63	2.09E+01	230	450	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS29	03/14/05	Benzofluoranthenes (total calc'd)	3.40E-01	1.68	2.02E+01	230	450	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-2	09/24/97	Benzofluoranthenes (total calc'd)	3.25E-01 J	2.06	1.58E+01	230	450	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2144-A	03/14/11	Benzofluoranthenes (total calc'd)	3.20E-01	0.849	3.77E+01	230	450	mg/kg OC	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
KC CSO Water Quality Assessment	KI-1	09/24/97	Benzofluoranthenes (total calc'd)	3.12E-01	2.29	1.36E+01	230	450	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS12	01/17/05	Benzofluoranthenes (total calc'd)	3.00E-01	1.88	1.60E+01	230	450	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2147-D	03/14/11	Benzofluoranthenes (total calc'd)	2.60E-01	0.782	3.32E+01	230	450	mg/kg OC	<1	<1
LDWRI-Benthic	C2-1	08/26/04	Benzofluoranthenes (total calc'd)	2.50E-01	1.82	1.37E+01	230	450	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS15	01/17/05	Benzofluoranthenes (total calc'd)	2.50E-01	1.79	1.40E+01	230	450	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2233-D	04/20/11	Benzofluoranthenes (total calc'd)	2.40E-01	0.617	3.89E+01	230	450	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS313	10/04/06	Benzofluoranthenes (total calc'd)	2.40E-01	1.95	1.23E+01	230	450	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-17	03/28/96	Benzofluoranthenes (total calc'd)	2.21E-01	2.66	8.30E+00	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR044	08/12/98	Benzofluoranthenes (total calc'd)	2.20E-01	2.22	9.91E+00	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR045	09/14/98	Benzofluoranthenes (total calc'd)	2.20E-01	2.92	7.53E+00	230	450	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS314	10/04/06	Benzofluoranthenes (total calc'd)	2.20E-01	2.81	7.83E+00	230	450	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2146-A	03/14/11	Benzofluoranthenes (total calc'd)	1.90E-01	1.01	1.88E+01	230	450	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2150-A[a]	04/20/11	Benzofluoranthenes (total calc'd)	1.90E-01	4.42		3.2	3.6	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS315	10/04/06	Benzofluoranthenes (total calc'd)	1.90E-01	1.74	1.09E+01	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR036	08/12/98	Benzofluoranthenes (total calc'd)	1.70E-01	3.37	5.04E+00	230	450	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-2	09/24/97	Benzofluoranthenes (total calc'd)	1.70E-01	2.03	8.37E+00	230	450	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS33	01/26/05	Benzofluoranthenes (total calc'd)	1.70E-01	1.66	1.02E+01	230	450	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-3	09/24/97	Benzofluoranthenes (total calc'd)	1.60E-01	2.24	7.14E+00	230	450	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-3	09/24/97	Benzofluoranthenes (total calc'd)	1.45E-01 J	2.145	6.76E+00	230	450	mg/kg OC	<1	<1
LDWRI-Benthic	C3-2	08/27/04	Benzofluoranthenes (total calc'd)	1.40E-01	1.31	1.07E+01	230	450	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS14	01/17/05	Benzofluoranthenes (total calc'd)	1.38E-01	0.79	1.75E+01	230	450	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS34	03/14/05	Benzofluoranthenes (total calc'd)	1.35E-01	1.52	8.88E+00	230	450	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-3	09/24/97	Benzofluoranthenes (total calc'd)	1.30E-01	2.05	6.34E+00	230	450	mg/kg OC	<1	<1
LDWRI-Benthic	C3-1	08/27/04	Benzofluoranthenes (total calc'd)	1.25E-01	0.93	1.34E+01	230	450	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-3	03/28/96	Benzofluoranthenes (total calc'd)	1.02E-01	2.22	4.60E+00	230	450	mg/kg OC	<1	<1
LDWRI-Benthic	B1a	08/13/04	Benzofluoranthenes (total calc'd)	9.60E-02	1.7	5.65E+00	230	450	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-4	03/28/96	Benzofluoranthenes (total calc'd)	9.07E-02	1.85	4.90E+00	230	450	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-16	03/28/96	Benzofluoranthenes (total calc'd)	8.97E-02	2.99	3.00E+00	230	450	mg/kg OC	<1	<1
EPA Site Inspection	DR044	08/12/98	Benzofluoranthenes (total calc'd)	8.00E-02	2.68	2.99E+00	230	450	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-5	03/28/96	Benzofluoranthenes (total calc'd)	6.97E-02	2.05	3.40E+00	230	450	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-18	03/28/96	Benzofluoranthenes (total calc'd)	6.84E-02	3.11	2.20E+00	230	450	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-10	03/28/96	Benzofluoranthenes (total calc'd)	6.68E-02	2.57	2.60E+00	230	450	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-15	03/28/96	Benzofluoranthenes (total calc'd)	6.28E-02	1.46	4.30E+00	230	450	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2232-A	04/20/11	Benzofluoranthenes (total calc'd)	5.80E-02	1.11	5.23E+00	230	450	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-12	03/28/96	Benzofluoranthenes (total calc'd)	5.59E-02	2.43	2.30E+00	230	450	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-1	03/28/96	Benzofluoranthenes (total calc'd)	5.54E-02	3.4	1.63E+00	230	450	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-11	03/28/96	Benzofluoranthenes (total calc'd)	5.40E-02	2.7	2.00E+00	230	450	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-13	03/28/96	Benzofluoranthenes (total calc'd)	5.28E-02	2.64	2.00E+00	230	450	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-2	03/28/96	Benzofluoranthenes (total calc'd)	4.87E-02	1.74	2.80E+00	230	450	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-7	03/28/96	Benzofluoranthenes (total calc'd)	4.75E-02	1.76	2.70E+00	230	450	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-20	03/28/96	Benzofluoranthenes (total calc'd)	4.52E-02	1.13	4.00E+00	230	450	mg/kg OC	<1	<1
LDWRI-Benthic	B3a	08/26/04	Benzofluoranthenes (total calc'd)	4.50E-02	1.36	3.31E+00	230	450	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS23	01/18/05	Benzofluoranthenes (total calc'd)	4.40E-02	1.23	3.58E+00	230	450	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2233-U[a]	04/20/11	Benzofluoranthenes (total calc'd)	4.00E-02	0.38		3.2	3.6	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-14	03/28/96	Benzofluoranthenes (total calc'd)	3.86E-02	1.68	2.30E+00	230	450	mg/kg OC	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
Seaboard Lumber-Phase 2 Investigation	SD-8	03/28/96	Benzofluoranthenes (total calc'd)	3.72E-02	1.78	2.09E+00	230	450	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-9	03/28/96	Benzofluoranthenes (total calc'd)	3.70E-02	1.68	2.20E+00	230	450	mg/kg OC	<1	<1
LDWRI-Benthic	C1[a]	08/26/04	Benzofluoranthenes (total calc'd)	3.30E-02	0.47		3.2	3.6	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-19	03/28/96	Benzofluoranthenes (total calc'd)	3.13E-02	2.75	1.14E+00	230	450	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-6	03/28/96	Benzofluoranthenes (total calc'd)	3.10E-02	1.79	1.73E+00	230	450	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-6	03/28/96	Benzofluoranthenes (total calc'd)	3.10E-02	1.79	1.73E+00	230	450	mg/kg OC	<1	<1
LDWRI-Benthic	C2-2	08/26/04	Benzofluoranthenes (total calc'd)	2.80E-02	1.06	2.64E+00	230	450	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2232-D	04/20/11	Benzofluoranthenes (total calc'd)	2.30E-02	0.778	2.96E+00	230	450	mg/kg OC	<1	<1
Puget Sound Sediment Quality/ NOAA Site Characterization	203	06/22/98	Benzoic acid	5.33E+00 J	1.5		0.65	0.65	mg/kg DW	8.2	8.2
LDWRI-Benthic	B1a	08/13/04	Benzoic acid	5.00E-01	1.7		0.65	0.65	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SSSWCSO-A	04/08/11	Benzoic acid	4.70E-01	2.69		0.65	0.65	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2149-A	04/20/11	Benzoic acid	4.00E-01	9.22		0.65	0.65	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2157-A	03/24/11	Benzoic acid	3.10E-01	1.81		0.65	0.65	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SSSWCSO-U	04/08/11	Benzoic acid	3.00E-01	1.2		0.65	0.65	mg/kg DW	<1	<1
LDWRI-Benthic	B3a	08/26/04	Benzoic acid	2.20E-01	1.36		0.65	0.65	mg/kg DW	<1	<1
EPA Site Inspection	DR042	08/12/98	Benzoic acid	2.00E-01	9.23		0.65	0.65	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS33	01/26/05	Benzoic acid	1.70E-01	1.66		0.65	0.65	mg/kg DW	<1	<1
Ecology SPI	TRI-015T	08/08/06	Benzoic acid	1.51E-01 J	2.16		0.65	0.65	mg/kg DW	<1	<1
Ecology SPI	TRI-010	08/08/06	Benzoic acid	1.39E-01 J	2.2		0.65	0.65	mg/kg DW	<1	<1
Ecology SPI	TRI-016	08/08/06	Benzoic acid	1.36E-01 J	2.38		0.65	0.65	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2148-A	04/20/11	Benzoic acid	8.10E-02 J	5.62		0.65	0.65	mg/kg DW	<1	<1
LDWRI-Benthic	C2-2	08/26/04	Benzoic acid	7.90E-02	1.06		0.65	0.65	mg/kg DW	<1	<1
LDWRI-Benthic	B2a	08/13/04	Benzoic acid	6.90E-02	1.97		0.65	0.65	mg/kg DW	<1	<1
LDWRI-Benthic	C3-1	08/27/04	Benzoic acid	6.60E-02	0.93		0.65	0.65	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2150-A	04/20/11	Benzoic acid	5.40E-02 J	4.42		0.65	0.65	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2232-A	04/20/11	Benzoic acid	4.30E-02 J	1.11		0.65	0.65	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS24	03/14/05	Benzyl alcohol	6.70E-01	5.99		0.057	0.073	mg/kg DW	12	9.2
LDW Outfall Sampling	LDW-SS2157-A	03/24/11	Benzyl alcohol	2.90E-01	1.81		0.057	0.073	mg/kg DW	5.1	4.0
LDW Outfall Sampling	LDW-SSSWCSO-A	04/08/11	Benzyl alcohol	2.70E-01	2.69		0.057	0.073	mg/kg DW	4.7	3.7
LDW Outfall Sampling	LDW-SSSWCSO-U	04/08/11	Benzyl alcohol	2.40E-01	1.2		0.057	0.073	mg/kg DW	4.2	3.3
LDW Outfall Sampling	LDW-SS2149-A	04/20/11	Benzyl alcohol	1.00E-01	9.22		0.057	0.073	mg/kg DW	1.8	1.4
Terminal 105 Site Assessment	SS2	11/17/93	Benzyl alcohol	7.30E-02 J	0.98		0.057	0.073	mg/kg DW	1.3	1.0
Ecology SPI	TRI-016	08/08/06	Benzyl alcohol	6.40E-02	2.38		0.057	0.073	mg/kg DW	1.1	<1
Ecology SPI	SPI-108	08/11/06	Benzyl alcohol	5.90E-02	1.55		0.057	0.073	mg/kg DW	1.0	<1
LDW Outfall Sampling	LDW-SS2146-A	03/14/11	Benzyl alcohol	4.60E-02	1.01		0.057	0.073	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2144-A	03/14/11	Benzyl alcohol	2.10E-02	0.849		0.057	0.073	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2147-D	03/14/11	Benzyl alcohol	1.50E-02	0.782		0.057	0.073	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	WQAKELL	05/08/97	Beryllium	7.20E-01	2.05						
EPA Site Inspection	DR037	08/18/98	Beryllium	5.90E-01	2.02						
KC CSO Water Quality Assessment	KI-3	09/24/97	Beryllium	5.80E-01	2.24						
KC CSO Water Quality Assessment	KI-3	09/24/97	Beryllium	5.60E-01	2.145						
EPA Site Inspection	DR039	08/12/98	Beryllium	5.50E-01	2.43						
KC CSO Water Quality Assessment	KI-3	09/24/97	Beryllium	5.40E-01	2.05						

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
KC CSO Water Quality Assessment	KI-1	09/24/97	Beryllium	5.30E-01	2.59						
EPA Site Inspection	DR068	08/18/98	Beryllium	5.00E-01	2.36						
EPA Site Inspection	DR069	08/18/98	Beryllium	5.00E-01	1.92						
KC CSO Water Quality Assessment	KI-2	09/24/97	Beryllium	4.80E-01	2.09						
KC CSO Water Quality Assessment	KI-1	09/24/97	Beryllium	4.75E-01	2.44						
EPA Site Inspection	DR078	08/24/98	Beryllium	4.70E-01	2.07						
EPA Site Inspection	DR066	08/18/98	Beryllium	4.60E-01	2.25						
EPA Site Inspection	DR079	08/24/98	Beryllium	4.60E-01	2.18						
EPA Site Inspection	DR080	08/24/98	Beryllium	4.60E-01	1.82						
KC CSO Water Quality Assessment	WQAKELL	03/12/97	Beryllium	4.60E-01	2.09						
EPA Site Inspection	DR038	09/02/98	Beryllium	4.50E-01	2.62						
EPA Site Inspection	DR041	08/12/98	Beryllium	4.50E-01	2.43						
EPA Site Inspection	DR048	08/12/98	Beryllium	4.50E-01	2.03						
KC CSO Water Quality Assessment	KI-2	09/24/97	Beryllium	4.45E-01	2.06						
KC CSO Water Quality Assessment	WQAKELL	04/03/97	Beryllium	4.30E-01	2.04						
KC CSO Water Quality Assessment	WQAKELL	04/08/97	Beryllium	4.30E-01	2.17						
KC CSO Water Quality Assessment	KI-1	09/24/97	Beryllium	4.20E-01	2.29						
KC CSO Water Quality Assessment	WQAKELL	03/06/97	Beryllium	4.20E-01	2.03						
KC CSO Water Quality Assessment	WQAKELL	05/01/97	Beryllium	4.20E-01	2.27						
EPA Site Inspection	DR040	08/12/98	Beryllium	4.10E-01	4.69						
KC CSO Water Quality Assessment	KI-2	09/24/97	Beryllium	4.10E-01	2.03						
KC CSO Water Quality Assessment	WQAKELL	03/27/97	Beryllium	4.10E-01	2.19						
EPA Site Inspection	DR042	08/12/98	Beryllium	4.00E-01	9.23						
EPA Site Inspection	DR044	08/12/98	Beryllium	4.00E-01	2.22						
KC CSO Water Quality Assessment	WQAKELL	04/17/97	Beryllium	4.00E-01	2.06						
KC CSO Water Quality Assessment	WQAKELL	04/24/97	Beryllium	4.00E-01	2.07						
EPA Site Inspection	DR077	08/24/98	Beryllium	3.80E-01	1.61						
Puget Sound Sediment Quality/ NOAA Site Characterization	203	06/22/98	Beryllium	3.70E-01	1.5						
EPA Site Inspection	DR034	08/11/98	Beryllium	3.70E-01	1.84						
EPA Site Inspection	DR044	08/12/98	Beryllium	3.70E-01	2.68						
EPA Site Inspection	DR035	08/11/98	Beryllium	3.60E-01	2.29						
EPA Site Inspection	DR033	08/11/98	Beryllium	3.50E-01	1.72						
EPA Site Inspection	DR070	08/12/98	Beryllium	3.50E-01	1.75						
EPA Site Inspection	DR032	08/11/98	Beryllium	3.00E-01	1.79						
EPA Site Inspection	DR043	08/12/98	Beryllium	2.80E-01	4.48						
EPA Site Inspection	DR044	08/12/98	Beryllium	2.80E-01	2.08						
EPA Site Inspection	DR046	08/12/98	Beryllium	2.80E-01	2.26						
EPA Site Inspection	DR047	09/14/98	Beryllium	2.50E-01 J	1.4						
EPA Site Inspection	DR045	09/14/98	Beryllium	2.40E-01 J	2.92						
EPA Site Inspection	DR031	08/11/98	Beryllium	2.20E-01	2.07						
EPA Site Inspection	DR036	08/12/98	Beryllium	2.20E-01	3.37						
EPA Site Inspection	DR067	08/18/98	Beryllium	2.20E-01	0.82						

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
EPA Site Inspection	DR076	08/24/98	Beryllium	1.20E-01	0.1						
KC CSO Water Quality Assessment	KI-4	09/24/97	Beryllium	1.00E-01	0.71						
KC CSO Water Quality Assessment	KI-4	09/24/97	Beryllium	7.25E-02	0.81						
LDWRI-Benthic	C3-1	08/27/04	beta-BHC	6.90E-04 J	0.93						
LDWRI-Benthic	B2a	08/13/04	Biphenyl	2.90E-03 J	1.97						
LDWRI-Benthic	B1a	08/13/04	Biphenyl	2.00E-03 J	1.7						
LDWRI-Benthic	B3a	08/26/04	Biphenyl	1.40E-03 J	1.36						
EPA Site Inspection	DR076[a]	08/24/98	Bis(2-ethylhexyl)phthalate	6.10E+00	0.1	6.10E+03	1.3	1.9	mg/kg DW	4.7	3.2
LDW Outfall Sampling	LDW-SS2150-A[a]	04/20/11	Bis(2-ethylhexyl)phthalate	1.70E+00	9.22		1.3	1.9	mg/kg DW	1.3	<1
EPA Site Inspection	DR079	08/24/98	Bis(2-ethylhexyl)phthalate	1.10E+00	2.18	5.05E+01	47	78	mg/kg OC	1.1	<1
Terminal 105 Site Assessment	SS1	11/23/93	Bis(2-Ethylhexyl)phthalate	1.00E+00 J	1.9	5.26E+01	47	78	mg/kg OC	1.1	<1
EPA Site Inspection	DR035	08/11/98	Bis(2-ethylhexyl)phthalate	7.20E-01	2.29	3.14E+01	47	78	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SSSWCSO-U	04/08/11	Bis(2-ethylhexyl)phthalate	6.60E-01	1.2	5.50E+01	47	78	mg/kg OC	1.2	<1
EPA Site Inspection	DR033	08/11/98	Bis(2-ethylhexyl)phthalate	6.10E-01	1.72	3.55E+01	47	78	mg/kg OC	<1	<1
EPA Site Inspection	DR031	08/11/98	Bis(2-ethylhexyl)phthalate	5.90E-01	2.07	2.85E+01	47	78	mg/kg OC	<1	<1
EPA Site Inspection	DR038	09/02/98	Bis(2-ethylhexyl)phthalate	5.70E-01	2.62	2.18E+01	47	78	mg/kg OC	<1	<1
EPA Site Inspection	DR077	08/24/98	Bis(2-ethylhexyl)phthalate	5.20E-01	1.61	3.23E+01	47	78	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	04/17/97	Bis(2-ethylhexyl)phthalate	5.20E-01	2.17	2.40E+01	47	78	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS310	10/03/06	Bis(2-ethylhexyl)phthalate	5.10E-01	1.63	3.13E+01	47	78	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	03/06/97	Bis(2-ethylhexyl)phthalate	5.00E-01 J	2.03	2.46E+01	47	78	mg/kg OC	<1	<1
EPA Site Inspection	DR068	08/18/98	Bis(2-ethylhexyl)phthalate	4.90E-01	2.36	2.08E+01	47	78	mg/kg OC	<1	<1
Puget Sound Sediment Quality/ NOAA Site Characterization	203	06/22/98	Bis(2-ethylhexyl)phthalate	4.86E-01	1.5	3.24E+01	47	78	mg/kg OC	<1	<1
EPA Site Inspection	DR034	08/11/98	Bis(2-ethylhexyl)phthalate	4.80E-01	1.84	2.61E+01	47	78	mg/kg OC	<1	<1
EPA Site Inspection	DR078	08/24/98	Bis(2-ethylhexyl)phthalate	4.80E-01	2.07	2.32E+01	47	78	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS19	03/08/05	Bis(2-ethylhexyl)phthalate	4.70E-01	2.07	2.27E+01	47	78	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	03/12/97	Bis(2-ethylhexyl)phthalate	4.59E-01	2.27	2.02E+01	47	78	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2150-A[a]	04/20/11	Bis(2-ethylhexyl)phthalate	4.20E-01	5.62		1.3	1.9	mg/kg DW	<1	<1
EPA Site Inspection	DR041	08/12/98	Bis(2-ethylhexyl)phthalate	4.10E-01	2.43	1.69E+01	47	78	mg/kg OC	<1	<1
EPA Site Inspection	DR037	08/18/98	Bis(2-ethylhexyl)phthalate	4.00E-01	2.02	1.98E+01	47	78	mg/kg OC	<1	<1
EPA Site Inspection	DR069	08/18/98	Bis(2-ethylhexyl)phthalate	4.00E-01	1.92	2.08E+01	47	78	mg/kg OC	<1	<1
EPA Site Inspection	DR080	08/24/98	Bis(2-ethylhexyl)phthalate	4.00E-01	1.82	2.20E+01	47	78	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS309	10/03/06	Bis(2-ethylhexyl)phthalate	4.00E-01	2.02	1.98E+01	47	78	mg/kg OC	<1	<1
EPA Site Inspection	DR044	08/12/98	Bis(2-ethylhexyl)phthalate	3.70E-01	2.22	1.67E+01	47	78	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	05/01/97	Bis(2-ethylhexyl)phthalate	3.70E-01	2.07	1.79E+01	47	78	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS16	03/08/05	Bis(2-ethylhexyl)phthalate	3.60E-01	2.11	1.71E+01	47	78	mg/kg OC	<1	<1
EPA Site Inspection	DR032	08/11/98	Bis(2-ethylhexyl)phthalate	3.50E-01	1.79	1.96E+01	47	78	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS308	10/03/06	Bis(2-ethylhexyl)phthalate	3.50E-01	1.86	1.88E+01	47	78	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	04/03/97	Bis(2-ethylhexyl)phthalate	3.26E-01	2.09	1.56E+01	47	78	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2157-A	03/24/11	Bis(2-ethylhexyl)phthalate	2.80E-01	1.81	1.55E+01	47	78	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-2	09/24/97	Bis(2-ethylhexyl)phthalate	2.69E-01	2.09	1.29E+01	47	78	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2150-A[a]	04/20/11	Bis(2-ethylhexyl)phthalate	2.40E-01	4.42		1.3	1.9	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	KI-2	09/24/97	Bis(2-ethylhexyl)phthalate	2.08E-01	2.06	1.01E+01	47	78	mg/kg OC	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
KC CSO Water Quality Assessment	KI-1	09/24/97	Bis(2-ethylhexyl)phthalate	2.00E-01 J	2.59	7.72E+00	47	78	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS311[a]	10/03/06	Bis(2-ethylhexyl)phthalate	1.90E-01	4.36		1.3	1.9	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	KI-1	09/24/97	Bis(2-ethylhexyl)phthalate	1.80E-01 J	2.44	7.38E+00	47	78	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS12	01/17/05	Bis(2-ethylhexyl)phthalate	1.80E-01	1.88	9.57E+00	47	78	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SSSWCSO-A	04/08/11	Bis(2-ethylhexyl)phthalate	1.70E-01	2.69	6.32E+00	47	78	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-1	09/24/97	Bis(2-ethylhexyl)phthalate	1.60E-01	2.29	6.99E+00	47	78	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-3	09/24/97	Bis(2-ethylhexyl)phthalate	1.60E-01 J	2.24	7.14E+00	47	78	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS14	01/17/05	Bis(2-ethylhexyl)phthalate	1.60E-01	0.79	2.03E+01	47	78	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-3	09/24/97	Bis(2-ethylhexyl)phthalate	1.50E-01 J	2.145	6.99E+00	47	78	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2147-D	03/14/11	Bis(2-ethylhexyl)phthalate	1.50E-01	0.782	1.92E+01	47	78	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-2	09/24/97	Bis(2-ethylhexyl)phthalate	1.46E-01	2.03	7.19E+00	47	78	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-3	09/24/97	Bis(2-ethylhexyl)phthalate	1.40E-01 J	2.05	6.83E+00	47	78	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2144-A	03/14/11	Bis(2-ethylhexyl)phthalate	1.40E-01	0.849	1.65E+01	47	78	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS312[a]	10/03/06	Bis(2-ethylhexyl)phthalate	1.40E-01	4.2		1.3	1.9	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS36	01/24/05	Bis(2-ethylhexyl)phthalate	1.30E-01	1.89	6.88E+00	47	78	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS9	03/14/05	Bis(2-ethylhexyl)phthalate	1.30E-01	1.79	7.26E+00	47	78	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2232-A	04/20/11	Bis(2-ethylhexyl)phthalate	1.20E-01	1.11	1.08E+01	47	78	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2232-U	04/20/11	Bis(2-ethylhexyl)phthalate	1.20E-01	1.63	7.36E+00	47	78	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS24[a]	03/14/05	Bis(2-ethylhexyl)phthalate	1.20E-01	5.99		1.3	1.9	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS29	03/14/05	Bis(2-ethylhexyl)phthalate	1.10E-01	1.68	6.55E+00	47	78	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS315	10/04/06	Bis(2-ethylhexyl)phthalate	9.20E-02	1.74	5.29E+00	47	78	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2146-A	03/14/11	Bis(2-ethylhexyl)phthalate	8.80E-02	1.01	8.71E+00	47	78	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS28	01/24/05	Bis(2-ethylhexyl)phthalate	7.40E-02 J	1.22	6.07E+00	47	78	mg/kg OC	<1	<1
LDWRI-Benthic	B3a	08/26/04	Bis(2-ethylhexyl)phthalate	6.70E-02 J	1.36	4.93E+00	47	78	mg/kg OC	<1	<1
LDWRI-Benthic	C3-2	08/27/04	Bis(2-ethylhexyl)phthalate	5.80E-02 J	1.31	4.43E+00	47	78	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2233-D	04/20/11	Bis(2-ethylhexyl)phthalate	5.50E-02	0.617	8.91E+00	47	78	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS313	10/04/06	Bis(2-ethylhexyl)phthalate	5.50E-02 J	1.95	2.82E+00	47	78	mg/kg OC	<1	<1
LDWRI-Benthic	B2a	08/13/04	Bis(2-ethylhexyl)phthalate	5.30E-02 J	1.97	2.69E+00	47	78	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-4	09/24/97	Bis(2-ethylhexyl)phthalate	4.92E-02	0.91	5.41E+00	47	78	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-4	09/24/97	Bis(2-ethylhexyl)phthalate	4.06E-02	0.81	5.01E+00	47	78	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2232-D	04/20/11	Bis(2-ethylhexyl)phthalate	3.60E-02	0.778	4.63E+00	47	78	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS34	03/14/05	Bis(2-ethylhexyl)phthalate	3.40E-02	1.52	2.24E+00	47	78	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-4	09/24/97	Bis(2-ethylhexyl)phthalate	3.20E-02	0.71	4.51E+00	47	78	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-17	03/28/96	Bis(2-ethylhexyl)phthalate	3.19E-02	2.66	1.20E+00	47	78	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-12	03/28/96	Bis(2-ethylhexyl)phthalate	3.16E-02	2.43	1.30E+00	47	78	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-3	03/28/96	Bis(2-ethylhexyl)phthalate	3.11E-02	2.22	1.40E+00	47	78	mg/kg OC	<1	<1
LDWRI-Benthic	C1[a]	08/26/04	Bis(2-ethylhexyl)phthalate	3.00E-02 J	0.47		1.3	1.9	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-7	03/28/96	Bis(2-ethylhexyl)phthalate	2.64E-02	1.76	1.50E+00	47	78	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS33	01/26/05	Bis(2-ethylhexyl)phthalate	2.60E-02	1.66	1.57E+00	47	78	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-11	03/28/96	Bis(2-ethylhexyl)phthalate	2.59E-02	2.7	9.60E-01	47	78	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-13	03/28/96	Bis(2-ethylhexyl)phthalate	2.51E-02	2.64	9.50E-01	47	78	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-10	03/28/96	Bis(2-ethylhexyl)phthalate	2.36E-02	2.57	9.20E-01	47	78	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-8	03/28/96	Bis(2-ethylhexyl)phthalate	2.31E-02	1.78	1.30E+00	47	78	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-5	03/28/96	Bis(2-ethylhexyl)phthalate	2.05E-02	2.05	1.00E+00	47	78	mg/kg OC	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
LDWRI-Benthic	C2-2	08/26/04	Bis(2-ethylhexyl)phthalate	2.00E-02 J	1.06	1.89E+00	47	78	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-6	03/28/96	Bis(2-ethylhexyl)phthalate	2.00E-02	1.79	1.12E+00	47	78	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-6	03/28/96	Bis(2-ethylhexyl)phthalate	1.97E-02	1.79	1.10E+00	47	78	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-1	03/28/96	Bis(2-ethylhexyl)phthalate	1.94E-02	3.4	5.70E-01	47	78	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-4	03/28/96	Bis(2-ethylhexyl)phthalate	1.76E-02	1.85	9.50E-01	47	78	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-2	03/28/96	Bis(2-ethylhexyl)phthalate	1.69E-02	1.74	9.70E-01	47	78	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2233-U[a]	04/20/11	Bis(2-ethylhexyl)phthalate	1.60E-02 J	0.38		1.3	1.9	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-14	03/28/96	Bis(2-ethylhexyl)phthalate	1.60E-02	1.68	9.50E-01	47	78	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-16	03/28/96	Bis(2-ethylhexyl)phthalate	1.58E-02	2.99	5.30E-01	47	78	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-9	03/28/96	Bis(2-ethylhexyl)phthalate	1.53E-02	1.68	9.10E-01	47	78	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-15	03/28/96	Bis(2-ethylhexyl)phthalate	1.23E-02	1.46	8.40E-01	47	78	mg/kg OC	<1	<1
LDWRI-Benthic	C2-1	08/26/04	Bis(2-ethylhexyl)phthalate	1.20E-02 J	1.82	6.59E-01	47	78	mg/kg OC	<1	<1
LDWRI-Benthic	C3-1	08/27/04	Bis(2-ethylhexyl)phthalate	1.20E-02 J	0.93	1.29E+00	47	78	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-18	03/28/96	Bis(2-ethylhexyl)phthalate	9.33E-03	3.11	3.00E-01	47	78	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-19	03/28/96	Bis(2-ethylhexyl)phthalate	5.50E-03	2.75	2.00E-01	47	78	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-20	03/28/96	Bis(2-ethylhexyl)phthalate	5.42E-03	1.13	4.80E-01	47	78	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2150-A[a]	04/20/11	Butyl benzyl phthalate	2.20E-01 J	9.22		0.063	0.9	mg/kg DW	3.5	<1
Terminal 105 Site Assessment	SS1	11/23/93	Butyl benzyl phthalate	1.50E-01 J	1.9	7.89E+00	4.9	64	mg/kg OC	1.6	<1
EPA Site Inspection	DR043[a]	08/12/98	Butyl benzyl phthalate	1.00E-01	4.48	2.23E+00	0.063	0.9	mg/kg DW	1.6	<1
EPA Site Inspection	DR034	08/11/98	Butyl benzyl phthalate	7.00E-02	1.84	3.80E+00	4.9	64	mg/kg OC	<1	<1
EPA Site Inspection	DR036	08/12/98	Butyl benzyl phthalate	7.00E-02	3.37	2.08E+00	4.9	64	mg/kg OC	<1	<1
EPA Site Inspection	DR038	09/02/98	Butyl benzyl phthalate	7.00E-02	2.62	2.67E+00	4.9	64	mg/kg OC	<1	<1
Ecology SPI	TRI-015T	08/08/06	Butyl benzyl phthalate	6.30E-02 J	2.16	2.92E+00	4.9	64	mg/kg OC	<1	<1
Ecology SPI	TRI-016	08/08/06	Butyl benzyl phthalate	6.20E-02 J	2.38	2.61E+00	4.9	64	mg/kg OC	<1	<1
EPA Site Inspection	DR035	08/11/98	Butyl benzyl phthalate	6.00E-02	2.29	2.62E+00	4.9	64	mg/kg OC	<1	<1
EPA Site Inspection	DR079	08/24/98	Butyl benzyl phthalate	6.00E-02	2.18	2.75E+00	4.9	64	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS310	10/03/06	Butyl benzyl phthalate	5.30E-02	1.63	3.25E+00	4.9	64	mg/kg OC	<1	<1
Ecology SPI	TRI-010	08/08/06	Butyl benzyl phthalate	5.30E-02 J	2.2	2.41E+00	4.9	64	mg/kg OC	<1	<1
EPA Site Inspection	DR039	08/12/98	Butyl benzyl phthalate	5.00E-02	2.43	2.06E+00	4.9	64	mg/kg OC	<1	<1
EPA Site Inspection	DR041	08/12/98	Butyl benzyl phthalate	5.00E-02	2.43	2.06E+00	4.9	64	mg/kg OC	<1	<1
EPA Site Inspection	DR066	08/18/98	Butyl benzyl phthalate	5.00E-02	2.25	2.22E+00	4.9	64	mg/kg OC	<1	<1
EPA Site Inspection	DR077	08/24/98	Butyl benzyl phthalate	5.00E-02	1.61	3.11E+00	4.9	64	mg/kg OC	<1	<1
Puget Sound Sediment Quality/ NOAA Site Characterization	203	06/22/98	Butyl benzyl phthalate	4.60E-02	1.5	3.07E+00	4.9	64	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2157-A	03/24/11	Butyl benzyl phthalate	4.50E-02	1.81	2.49E+00	4.9	64	mg/kg OC	<1	<1
EPA Site Inspection	DR048	08/12/98	Butyl benzyl phthalate	4.00E-02	2.03	1.97E+00	4.9	64	mg/kg OC	<1	<1
EPA Site Inspection	DR068	08/18/98	Butyl benzyl phthalate	4.00E-02	2.36	1.69E+00	4.9	64	mg/kg OC	<1	<1
EPA Site Inspection	DR069	08/18/98	Butyl benzyl phthalate	4.00E-02	1.92	2.08E+00	4.9	64	mg/kg OC	<1	<1
EPA Site Inspection	DR070	08/12/98	Butyl benzyl phthalate	4.00E-02	1.75	2.29E+00	4.9	64	mg/kg OC	<1	<1
EPA Site Inspection	DR078	08/24/98	Butyl benzyl phthalate	4.00E-02	2.07	1.93E+00	4.9	64	mg/kg OC	<1	<1
EPA Site Inspection	DR080	08/24/98	Butyl benzyl phthalate	4.00E-02	1.82	2.20E+00	4.9	64	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS308	10/03/06	Butyl benzyl phthalate	4.00E-02	1.86	2.15E+00	4.9	64	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS309	10/03/06	Butyl benzyl phthalate	4.00E-02	2.02	1.98E+00	4.9	64	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2150-A[a]	04/20/11	Butyl benzyl phthalate	3.70E-02 J	5.62		0.063	0.9	mg/kg DW	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
KC CSO Water Quality Assessment	WQAKELL	04/17/97	Butyl benzyl phthalate	3.60E-02	2.07	1.74E+00	4.9	64	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS312[a]	10/03/06	Butyl benzyl phthalate	3.40E-02	4.2		0.063	0.9	mg/kg DW	<1	<1
EPA Site Inspection	DR033	08/11/98	Butyl benzyl phthalate	3.00E-02	1.72	1.74E+00	4.9	64	mg/kg OC	<1	<1
EPA Site Inspection	DR037	08/18/98	Butyl benzyl phthalate	3.00E-02	2.02	1.49E+00	4.9	64	mg/kg OC	<1	<1
EPA Site Inspection	DR067	08/18/98	Butyl benzyl phthalate	3.00E-02	0.82	3.66E+00	4.9	64	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2147-D	03/14/11	Butyl benzyl phthalate	3.00E-02	0.782	3.84E+00	4.9	64	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS10	01/17/05	Butyl benzyl phthalate	2.60E-02	1.63	1.60E+00	4.9	64	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS19	03/08/05	Butyl benzyl phthalate	2.10E-02	2.07	1.01E+00	4.9	64	mg/kg OC	<1	<1
EPA Site Inspection	DR046	08/12/98	Butyl benzyl phthalate	2.00E-02	2.26	8.85E-01	4.9	64	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SSSWCSO-A	04/08/11	Butyl benzyl phthalate	1.90E-02	2.69	7.06E-01	4.9	64	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS16	03/08/05	Butyl benzyl phthalate	1.80E-02	2.11	8.53E-01	4.9	64	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SSSWCSO-U	04/08/11	Butyl benzyl phthalate	1.80E-02	1.2	1.50E+00	4.9	64	mg/kg OC	<1	<1
LDWRI-Benthic	B2a	08/13/04	Butyl benzyl phthalate	1.60E-02	1.97	8.12E-01	4.9	64	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2150-A[a]	04/20/11	Butyl benzyl phthalate	1.60E-02 J	4.42		0.063	0.9	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2146-A	03/14/11	Butyl benzyl phthalate	1.20E-02	1.01	1.19E+00	4.9	64	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS315	10/04/06	Butyl benzyl phthalate	1.10E-02	1.74	6.32E-01	4.9	64	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS311[a]	10/03/06	Butyl benzyl phthalate	9.30E-03	4.36		0.063	0.9	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2144-A	03/14/11	Butyl benzyl phthalate	6.20E-03	0.849	7.30E-01	4.9	64	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS313	10/04/06	Butyl benzyl phthalate	6.20E-03	1.95	3.18E-01	4.9	64	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS314	10/04/06	Butyl benzyl phthalate	6.20E-03	2.81	2.21E-01	4.9	64	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-6	03/28/96	Butyl benzyl phthalate	4.83E-03	1.79	2.70E-01	4.9	64	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2232-U	04/20/11	Butyl benzyl phthalate	4.80E-03 J	1.63	2.94E-01	4.9	64	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-6	03/28/96	Butyl benzyl phthalate	4.80E-03	1.79	2.68E-01	4.9	64	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-3	03/28/96	Butyl benzyl phthalate	4.66E-03	2.22	2.10E-01	4.9	64	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2233-D	04/20/11	Butyl benzyl phthalate	4.50E-03 J	0.617	7.29E-01	4.9	64	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2232-D	04/20/11	Butyl benzyl phthalate	4.20E-03 J	0.778	5.40E-01	4.9	64	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-17	03/28/96	Butyl benzyl phthalate	3.45E-03	2.66	1.30E-01	4.9	64	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-5	03/28/96	Butyl benzyl phthalate	3.28E-03	2.05	1.60E-01	4.9	64	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-12	03/28/96	Butyl benzyl phthalate	3.15E-03	2.43	1.30E-01	4.9	64	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-10	03/28/96	Butyl benzyl phthalate	3.08E-03	2.57	1.20E-01	4.9	64	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-2	03/28/96	Butyl benzyl phthalate	2.95E-03	1.74	1.70E-01	4.9	64	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-4	03/28/96	Butyl benzyl phthalate	2.77E-03	1.85	1.50E-01	4.9	64	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2233-U[a]	04/20/11	Butyl benzyl phthalate	2.70E-03 J	0.38		0.063	0.9	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-13	03/28/96	Butyl benzyl phthalate	2.64E-03	2.64	1.00E-01	4.9	64	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-7	03/28/96	Butyl benzyl phthalate	2.64E-03	1.76	1.50E-01	4.9	64	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-11	03/28/96	Butyl benzyl phthalate	2.43E-03	2.7	9.00E-02	4.9	64	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-1	03/28/96	Butyl benzyl phthalate	2.38E-03	3.4	7.00E-02	4.9	64	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-8	03/28/96	Butyl benzyl phthalate	2.31E-03	1.78	1.30E-01	4.9	64	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-9	03/28/96	Butyl benzyl phthalate	2.01E-03	1.68	1.20E-01	4.9	64	mg/kg OC	<1	<1
Terminal 105 Site Assessment	SS1	11/23/93	Cadmium	4.80E+00 T	1.9		5.1	6.7	mg/kg DW	<1	<1
Terminal 105 Site Assessment	SS2	11/17/93	Cadmium	1.60E+00 T	0.98		5.1	6.7	mg/kg DW	<1	<1
EPA Site Inspection	DR044	08/12/98	Cadmium	1.34E+00	2.22		5.1	6.7	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-17	03/28/96	Cadmium	1.10E+00	2.66		5.1	6.7	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS24	03/14/05	Cadmium	1.00E+00	5.99		5.1	6.7	mg/kg DW	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
Seaboard Lumber-Phase 2 Investigation	SD-10	03/28/96	Cadmium	1.00E+00	2.57		5.1	6.7	mg/kg DW	<1	<1
Terminal 105 Site Assessment	SS3	11/17/93	Cadmium	9.80E-01 T	0.13		5.1	6.7	mg/kg DW	<1	<1
EPA Site Inspection	DR044	08/12/98	Cadmium	9.40E-01	2.68		5.1	6.7	mg/kg DW	<1	<1
EPA Site Inspection	DR035	08/11/98	Cadmium	9.10E-01	2.29		5.1	6.7	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-11	03/28/96	Cadmium	8.00E-01	2.7		5.1	6.7	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-13	03/28/96	Cadmium	8.00E-01	2.64		5.1	6.7	mg/kg DW	<1	<1
EPA Site Inspection	DR042	08/12/98	Cadmium	7.00E-01	9.23		5.1	6.7	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS16	03/08/05	Cadmium	7.00E-01	2.11		5.1	6.7	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS19	03/08/05	Cadmium	7.00E-01	2.07		5.1	6.7	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2149-A	04/20/11	Cadmium	7.00E-01	9.22		5.1	6.7	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS311	10/03/06	Cadmium	7.00E-01	4.36		5.1	6.7	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-12	03/28/96	Cadmium	7.00E-01	2.43		5.1	6.7	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-3	03/28/96	Cadmium	7.00E-01	2.22		5.1	6.7	mg/kg DW	<1	<1
EPA Site Inspection	DR038	09/02/98	Cadmium	6.40E-01	2.62		5.1	6.7	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS15	01/17/05	Cadmium	6.00E-01	1.79		5.1	6.7	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SSSWCSO-A	04/08/11	Cadmium	6.00E-01	2.69		5.1	6.7	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SSSWCSO-U	04/08/11	Cadmium	6.00E-01	1.2		5.1	6.7	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-4	03/28/96	Cadmium	6.00E-01	1.85		5.1	6.7	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-5	03/28/96	Cadmium	6.00E-01	2.05		5.1	6.7	mg/kg DW	<1	<1
Ecology SPI	TRI-015T	08/08/06	Cadmium	5.90E-01	2.16		5.1	6.7	mg/kg DW	<1	<1
EPA Site Inspection	DR079	08/24/98	Cadmium	5.50E-01	2.18		5.1	6.7	mg/kg DW	<1	<1
Ecology SPI	TRI-010	08/08/06	Cadmium	5.50E-01	2.2		5.1	6.7	mg/kg DW	<1	<1
Ecology SPI	TRI-016	08/08/06	Cadmium	5.50E-01	2.38		5.1	6.7	mg/kg DW	<1	<1
EPA Site Inspection	DR043	08/12/98	Cadmium	5.30E-01	4.48		5.1	6.7	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	WQAKELL	05/08/97	Cadmium	5.30E-01	2.06		5.1	6.7	mg/kg DW	<1	<1
Ecology SPI	SPI-108	08/11/06	Cadmium	5.20E-01	1.55		5.1	6.7	mg/kg DW	<1	<1
EPA Site Inspection	DR034	08/11/98	Cadmium	5.10E-01	1.84		5.1	6.7	mg/kg DW	<1	<1
EPA Site Inspection	DR077	08/24/98	Cadmium	5.10E-01	1.61		5.1	6.7	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS10	01/17/05	Cadmium	5.00E-01	1.63		5.1	6.7	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS12	01/17/05	Cadmium	5.00E-01	1.88		5.1	6.7	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2147-D	03/14/11	Cadmium	5.00E-01	0.782		5.1	6.7	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2157-A	03/24/11	Cadmium	5.00E-01	1.81		5.1	6.7	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS28	01/24/05	Cadmium	5.00E-01	1.22		5.1	6.7	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS29	03/14/05	Cadmium	5.00E-01	1.68		5.1	6.7	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS308	10/03/06	Cadmium	5.00E-01	1.86		5.1	6.7	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS309	10/03/06	Cadmium	5.00E-01	2.02		5.1	6.7	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS310	10/03/06	Cadmium	5.00E-01	1.63		5.1	6.7	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS36	01/24/05	Cadmium	5.00E-01	1.89		5.1	6.7	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-1	03/28/96	Cadmium	5.00E-01	3.4		5.1	6.7	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-16	03/28/96	Cadmium	5.00E-01	2.99		5.1	6.7	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-7	03/28/96	Cadmium	5.00E-01	1.76		5.1	6.7	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-9	03/28/96	Cadmium	5.00E-01	1.68		5.1	6.7	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	KI-1	09/24/97	Cadmium	4.70E-01 J	2.59		5.1	6.7	mg/kg DW	<1	<1
EPA Site Inspection	DR078	08/24/98	Cadmium	4.60E-01	2.07		5.1	6.7	mg/kg DW	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
EPA Site Inspection	DR039	08/12/98	Cadmium	4.50E-01	2.43		5.1	6.7	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	WQAKELL	03/06/97	Cadmium	4.40E-01 J	2.05		5.1	6.7	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	WQAKELL	04/03/97	Cadmium	4.30E-01	2.27		5.1	6.7	mg/kg DW	<1	<1
EPA Site Inspection	DR080	08/24/98	Cadmium	4.20E-01	1.82		5.1	6.7	mg/kg DW	<1	<1
EPA Site Inspection	DR047	09/14/98	Cadmium	4.00E-01	1.4		5.1	6.7	mg/kg DW	<1	<1
EPA Site Inspection	DR066	08/18/98	Cadmium	4.00E-01	2.25		5.1	6.7	mg/kg DW	<1	<1
EPA Site Inspection	DR068	08/18/98	Cadmium	4.00E-01	2.36		5.1	6.7	mg/kg DW	<1	<1
EPA Site Inspection	DR070	08/12/98	Cadmium	4.00E-01	1.75		5.1	6.7	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2144-A	03/14/11	Cadmium	4.00E-01	0.849		5.1	6.7	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2146-A	03/14/11	Cadmium	4.00E-01	1.01		5.1	6.7	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS314	10/04/06	Cadmium	4.00E-01	2.81		5.1	6.7	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-14	03/28/96	Cadmium	4.00E-01	1.68		5.1	6.7	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-18	03/28/96	Cadmium	4.00E-01	3.11		5.1	6.7	mg/kg DW	<1	<1
EPA Site Inspection	DR040	08/12/98	Cadmium	3.90E-01	4.69		5.1	6.7	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	KI-2	09/24/97	Cadmium	3.90E-01 J	2.09		5.1	6.7	mg/kg DW	<1	<1
EPA Site Inspection	DR036	08/12/98	Cadmium	3.70E-01	3.37		5.1	6.7	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	WQAKELL	04/24/97	Cadmium	3.70E-01	2.17		5.1	6.7	mg/kg DW	<1	<1
EPA Site Inspection	DR037	08/18/98	Cadmium	3.50E-01	2.02		5.1	6.7	mg/kg DW	<1	<1
EPA Site Inspection	DR033	08/11/98	Cadmium	3.30E-01	1.72		5.1	6.7	mg/kg DW	<1	<1
EPA Site Inspection	DR041	08/12/98	Cadmium	3.30E-01	2.43		5.1	6.7	mg/kg DW	<1	<1
EPA Site Inspection	DR048	08/12/98	Cadmium	3.20E-01	2.03		5.1	6.7	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	KI-1	09/24/97	Cadmium	3.13E-01 J	2.44		5.1	6.7	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2233-U	04/20/11	Cadmium	3.00E-01	0.38		5.1	6.7	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-19	03/28/96	Cadmium	3.00E-01	2.75		5.1	6.7	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-20	03/28/96	Cadmium	3.00E-01	1.13		5.1	6.7	mg/kg DW	<1	<1
Puget Sound Sediment Quality/ NOAA Site Characterization	203	06/22/98	Cadmium	2.90E-01	1.5		5.1	6.7	mg/kg DW	<1	<1
EPA Site Inspection	DR069	08/18/98	Cadmium	2.90E-01	1.92		5.1	6.7	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	KI-2	09/24/97	Cadmium	2.75E-01 J	2.06		5.1	6.7	mg/kg DW	<1	<1
EPA Site Inspection	DR032	08/11/98	Cadmium	2.60E-01	1.79		5.1	6.7	mg/kg DW	<1	<1
EPA Site Inspection	DR044	08/12/98	Cadmium	2.40E-01	2.08		5.1	6.7	mg/kg DW	<1	<1
EPA Site Inspection	DR031	08/11/98	Cadmium	2.30E-01	2.07		5.1	6.7	mg/kg DW	<1	<1
LDWRI-Benthic	C3-1	08/27/04	Cadmium	2.20E-01	0.93		5.1	6.7	mg/kg DW	<1	<1
EPA Site Inspection	DR046	08/12/98	Cadmium	2.20E-01	2.26		5.1	6.7	mg/kg DW	<1	<1
LDWRI-Benthic	B2a	08/13/04	Cadmium	2.04E-01	1.97		5.1	6.7	mg/kg DW	<1	<1
EPA Site Inspection	DR045	09/14/98	Cadmium	2.00E-01	2.92		5.1	6.7	mg/kg DW	<1	<1
EPA Site Inspection	DR067	08/18/98	Cadmium	2.00E-01	0.82		5.1	6.7	mg/kg DW	<1	<1
LDWRI-Benthic	C3-2	08/27/04	Cadmium	1.80E-01	1.31		5.1	6.7	mg/kg DW	<1	<1
LDWRI-Benthic	C2-1	08/26/04	Cadmium	1.40E-01	1.82		5.1	6.7	mg/kg DW	<1	<1
EPA Site Inspection	DR076	08/24/98	Cadmium	1.30E-01	0.1		5.1	6.7	mg/kg DW	<1	<1
LDWRI-Benthic	C2-2	08/26/04	Cadmium	1.10E-01	1.06		5.1	6.7	mg/kg DW	<1	<1
LDWRI-Benthic	B3a	08/26/04	Cadmium	1.09E-01	1.36		5.1	6.7	mg/kg DW	<1	<1
LDWRI-Benthic	B1a	08/13/04	Cadmium	6.60E-02	1.7		5.1	6.7	mg/kg DW	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
LDWRI-Benthic	C1	08/26/04	Cadmium	5.00E-02	0.47		5.1	6.7	mg/kg DW	<1	<1
EPA Site Inspection	DR038	09/02/98	Carbazole	4.80E-01	2.62						
Ecology SPI	TRI-015T	08/08/06	Carbazole	4.65E-01 J	2.16						
Ecology SPI	TRI-010	08/08/06	Carbazole	4.26E-01 J	2.2						
EPA Site Inspection	DR033	08/11/98	Carbazole	3.70E-01	1.72						
EPA Site Inspection	DR037	08/18/98	Carbazole	3.70E-01	2.02						
EPA Site Inspection	DR044	08/12/98	Carbazole	3.00E-01	2.08						
LDWRI-Surface Sediment Round 2	LDW-SS24	03/14/05	Carbazole	2.00E-01	5.99						
LDWRI-Surface Sediment Round 1	LDW-SS36	01/24/05	Carbazole	1.70E-01	1.89						
Ecology SPI	TRI-016	08/08/06	Carbazole	1.60E-01 J	2.38						
EPA Site Inspection	DR047	09/14/98	Carbazole	1.20E-01	1.4						
LDW Outfall Sampling	LDW-SSSWCSO-U	04/08/11	Carbazole	9.10E-02	1.2						
EPA Site Inspection	DR040	08/12/98	Carbazole	9.00E-02	4.69						
Ecology SPI	SPI-108	08/11/06	Carbazole	8.50E-02 J	1.55						
EPA Site Inspection	DR035	08/11/98	Carbazole	8.00E-02	2.29						
EPA Site Inspection	DR067	08/18/98	Carbazole	8.00E-02	0.82						
LDWRI-Benthic	C2-1	08/26/04	Carbazole	6.60E-02	1.82						
LDW Outfall Sampling	LDW-SS2148-A	04/20/11	Carbazole	5.60E-02	5.62						
EPA Site Inspection	DR031	08/11/98	Carbazole	5.00E-02	2.07						
LDW Outfall Sampling	LDW-SS2157-A	03/24/11	Carbazole	4.70E-02	1.81						
LDWRI-Surface Sediment Round 2	LDW-SS19	03/08/05	Carbazole	4.50E-02	2.07						
LDWRI-Surface Sediment Round 2	LDW-SS9	03/14/05	Carbazole	4.50E-02	1.79						
LDW Outfall Sampling	LDW-SSSWCSO-A	04/08/11	Carbazole	4.10E-02	2.69						
EPA Site Inspection	DR041	08/12/98	Carbazole	4.00E-02	2.43						
EPA Site Inspection	DR068	08/18/98	Carbazole	4.00E-02	2.36						
LDW Outfall Sampling	LDW-SS2149-A	04/20/11	Carbazole	3.50E-02	9.22						
EPA Site Inspection	DR032	08/11/98	Carbazole	3.00E-02	1.79						
EPA Site Inspection	DR034	08/11/98	Carbazole	3.00E-02	1.84						
EPA Site Inspection	DR039	08/12/98	Carbazole	3.00E-02	2.43						
EPA Site Inspection	DR042	08/12/98	Carbazole	3.00E-02	9.23						
EPA Site Inspection	DR048	08/12/98	Carbazole	3.00E-02	2.03						
EPA Site Inspection	DR066	08/18/98	Carbazole	3.00E-02	2.25						
EPA Site Inspection	DR069	08/18/98	Carbazole	3.00E-02	1.92						
LDWRI-Surface Sediment Round 1	LDW-SS12	01/17/05	Carbazole	2.30E-02	1.88						
LDWRI-Surface Sediment Round 2	LDW-SS3	03/09/05	Carbazole	2.30E-02	0.723						
EPA Site Inspection	DR070	08/12/98	Carbazole	2.00E-02	1.75						
EPA Site Inspection	DR077	08/24/98	Carbazole	2.00E-02	1.61						
EPA Site Inspection	DR078	08/24/98	Carbazole	2.00E-02	2.07						
EPA Site Inspection	DR079	08/24/98	Carbazole	2.00E-02	2.18						
EPA Site Inspection	DR080	08/24/98	Carbazole	2.00E-02	1.82						
LDWRI-Benthic	B2a	08/13/04	Carbazole	1.80E-02	1.97						
LDW Outfall Sampling	LDW-SS2150-A	04/20/11	Carbazole	1.40E-02 J	4.42						
LDW Outfall Sampling	LDW-SS2233-D	04/20/11	Carbazole	1.30E-02 J	0.617						

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
LDW Outfall Sampling	LDW-SS2147-D	03/14/11	Carbazole	1.20E-02 J	0.782						
LDW Outfall Sampling	LDW-SS2144-A	03/14/11	Carbazole	1.00E-02 J	0.849						
LDW Outfall Sampling	LDW-SS2232-U	04/20/11	Carbazole	1.00E-02 J	1.63						
LDWRI-Benthic	B1a	08/13/04	Carbazole	4.70E-03 J	1.7						
LDWRI-Benthic	C3-1	08/27/04	Carbazole	4.30E-03 J	0.93						
EPA Site Inspection	DR044	08/12/98	Carcinogenic PAHs (calc'd)	1.15E+01	2.08						
EPA Site Inspection	DR033	08/11/98	Carcinogenic PAHs (calc'd)	9.26E+00	1.72						
EPA Site Inspection	DR038	09/02/98	Carcinogenic PAHs (calc'd)	8.37E+00	2.62						
EPA Site Inspection	DR040	08/12/98	Carcinogenic PAHs (calc'd)	6.92E+00	4.69						
EPA Site Inspection	DR047	09/14/98	Carcinogenic PAHs (calc'd)	5.54E+00	1.4						
LDWRI-Surface Sediment Round 3	LDW-SS312	10/03/06	Carcinogenic PAHs (calc'd)	4.20E+00							
EPA Site Inspection	DR035	08/11/98	Carcinogenic PAHs (calc'd)	3.85E+00	2.29						
EPA Site Inspection	DR037	08/18/98	Carcinogenic PAHs (calc'd)	3.65E+00	2.02						
EPA Site Inspection	DR048	08/12/98	Carcinogenic PAHs (calc'd)	3.51E+00	2.03						
EPA Site Inspection	DR031	08/11/98	Carcinogenic PAHs (calc'd)	3.42E+00	2.07						
LDWRI-Surface Sediment Round 2	LDW-SS24	03/14/05	Carcinogenic PAHs (calc'd)	3.00E+00	5.99						
LDW Dioxin Sampling	LDW-SS509	12/15/09	Carcinogenic PAHs (calc'd)	2.90E+00 J	7.08						
EPA Site Inspection	DR077	08/24/98	Carcinogenic PAHs (calc'd)	2.69E+00	1.61						
EPA Site Inspection	DR034	08/11/98	Carcinogenic PAHs (calc'd)	2.61E+00	1.84						
EPA Site Inspection	DR068	08/18/98	Carcinogenic PAHs (calc'd)	2.45E+00	2.36						
EPA Site Inspection	DR066	08/18/98	Carcinogenic PAHs (calc'd)	2.42E+00	2.25						
EPA Site Inspection	DR041	08/12/98	Carcinogenic PAHs (calc'd)	2.37E+00	2.43						
Puget Sound Sediment Quality/ NOAA Site Characterization	203	06/22/98	Carcinogenic PAHs (calc'd)	2.12E+00 J	1.5						
EPA Site Inspection	DR079	08/24/98	Carcinogenic PAHs (calc'd)	2.11E+00	2.18						
EPA Site Inspection	DR039	08/12/98	Carcinogenic PAHs (calc'd)	2.05E+00	2.43						
EPA Site Inspection	DR032	08/11/98	Carcinogenic PAHs (calc'd)	1.99E+00	1.79						
EPA Site Inspection	DR078	08/24/98	Carcinogenic PAHs (calc'd)	1.98E+00	2.07						
EPA Site Inspection	DR069	08/18/98	Carcinogenic PAHs (calc'd)	1.88E+00	1.92						
Harbor Island RI	K-05	09/27/91	Carcinogenic PAHs (calc'd)	1.72E+00 J	1.6						
EPA Site Inspection	DR042	08/12/98	Carcinogenic PAHs (calc'd)	1.70E+00	9.23						
EPA Site Inspection	DR070	08/12/98	Carcinogenic PAHs (calc'd)	1.65E+00	1.75						
LDWRI-Surface Sediment Round 3	LDW-SS311	10/03/06	Carcinogenic PAHs (calc'd)	1.50E+00							
EPA Site Inspection	DR080	08/24/98	Carcinogenic PAHs (calc'd)	1.43E+00	1.82						
EPA Site Inspection	DR067	08/18/98	Carcinogenic PAHs (calc'd)	1.40E+00	0.82						
EPA Site Inspection	DR046	08/12/98	Carcinogenic PAHs (calc'd)	1.31E+00	2.26						
KC CSO Water Quality Assessment	WQAKELL	03/06/97	Carcinogenic PAHs (calc'd)	1.28E+00	2.27						
KC CSO Water Quality Assessment	WQAKELL	03/12/97	Carcinogenic PAHs (calc'd)	1.21E+00	2.09						
LDWRI-Surface Sediment Round 2	LDW-SS9	03/14/05	Carcinogenic PAHs (calc'd)	1.20E+00	1.79						
KC CSO Water Quality Assessment	WQAKELL	04/17/97	Carcinogenic PAHs (calc'd)	1.13E+00	2.07						
KC CSO Water Quality Assessment	WQAKELL	05/01/97	Carcinogenic PAHs (calc'd)	1.11E+00	2.03						
Terminal 105 Site Assessment	SS1	11/23/93	Carcinogenic PAHs (calc'd)	1.08E+00	1.9						
KC CSO Water Quality Assessment	KI-2	09/24/97	Carcinogenic PAHs (calc'd)	1.07E+00	2.09						

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
KC CSO Water Quality Assessment	KI-1	09/24/97	Carcinogenic PAHs (calc'd)	1.02E+00	2.59						
KC CSO Water Quality Assessment	WQAKELL	04/03/97	Carcinogenic PAHs (calc'd)	9.79E-01	2.17						
KC CSO Water Quality Assessment	KI-1	09/24/97	Carcinogenic PAHs (calc'd)	9.64E-01 J	2.44						
EPA Site Inspection	DR043	08/12/98	Carcinogenic PAHs (calc'd)	9.10E-01	4.48						
LDW Outfall Sampling	LDW-SS2148-A	04/20/11	Carcinogenic PAHs (calc'd)	9.10E-01	5.62						
KC CSO Water Quality Assessment	KI-1	09/24/97	Carcinogenic PAHs (calc'd)	9.08E-01	2.29						
KC CSO Water Quality Assessment	KI-2	09/24/97	Carcinogenic PAHs (calc'd)	8.62E-01 J	2.06						
Ecology SPI	TRI-015T	08/08/06	Carcinogenic PAHs (calc'd)	6.90E-01							
Ecology SPI	TRI-010	08/08/06	Carcinogenic PAHs (calc'd)	6.70E-01							
LDWRI-Surface Sediment Round 3	LDW-SS310	10/03/06	Carcinogenic PAHs (calc'd)	6.40E-01							
KC CSO Water Quality Assessment	KI-3	09/24/97	Carcinogenic PAHs (calc'd)	6.28E-01	2.24						
Seaboard Lumber-Phase 2 Investigation	SD-17	03/28/96	Carcinogenic PAHs (calc'd)	6.24E-01 J	2.66						
EPA Site Inspection	DR045	09/14/98	Carcinogenic PAHs (calc'd)	6.10E-01	2.92						
KC CSO Water Quality Assessment	KI-2	09/24/97	Carcinogenic PAHs (calc'd)	6.07E-01	2.03						
Ecology SPI	SPI-108	08/11/06	Carcinogenic PAHs (calc'd)	6.00E-01							
LDWRI-Surface Sediment Round 3	LDW-SS309	10/03/06	Carcinogenic PAHs (calc'd)	5.80E-01							
EPA Site Inspection	DR036	08/12/98	Carcinogenic PAHs (calc'd)	5.70E-01	3.37						
EPA Site Inspection	DR044	08/12/98	Carcinogenic PAHs (calc'd)	5.60E-01	2.22						
LDWRI-Surface Sediment Round 3	LDW-SS308	10/03/06	Carcinogenic PAHs (calc'd)	5.60E-01							
KC CSO Water Quality Assessment	KI-3	09/24/97	Carcinogenic PAHs (calc'd)	5.27E-01 J	2.145						
LDW Outfall Sampling	LDW-SSSWCSO-U	04/08/11	Carcinogenic PAHs (calc'd)	5.20E-01	1.2						
LDWRI-Surface Sediment Round 2	LDW-SS16	03/08/05	Carcinogenic PAHs (calc'd)	4.90E-01	2.11						
LDWRI-Surface Sediment Round 1	LDW-SS10	01/17/05	Carcinogenic PAHs (calc'd)	4.80E-01	1.63						
LDWRI-Surface Sediment Round 1	LDW-SS36	01/24/05	Carcinogenic PAHs (calc'd)	4.50E-01	1.89						
LDW Outfall Sampling	LDW-SS2149-A	04/20/11	Carcinogenic PAHs (calc'd)	4.40E-01	9.22						
Ecology SPI	TRI-016	08/08/06	Carcinogenic PAHs (calc'd)	4.40E-01	2.38						
LDWRI-Surface Sediment Round 2	LDW-SS19	03/08/05	Carcinogenic PAHs (calc'd)	4.10E-01	2.07						
KC CSO Water Quality Assessment	KI-3	09/24/97	Carcinogenic PAHs (calc'd)	3.98E-01	2.05						
LDWRI-Benthic	B2a	08/13/04	Carcinogenic PAHs (calc'd)	3.90E-01	1.97						
LDW Outfall Sampling	LDW-SSSWCSO-A	04/08/11	Carcinogenic PAHs (calc'd)	3.60E-01	2.69						
LDW Outfall Sampling	LDW-SS2157-A	03/24/11	Carcinogenic PAHs (calc'd)	3.30E-01	1.81						
Terminal 105 Site Assessment	SS2	11/17/93	Carcinogenic PAHs (calc'd)	2.92E-01	0.98						
Seaboard Lumber-Phase 2 Investigation	SD-3	03/28/96	Carcinogenic PAHs (calc'd)	2.71E-01	2.22						
Seaboard Lumber-Phase 2 Investigation	SD-16	03/28/96	Carcinogenic PAHs (calc'd)	2.67E-01	2.99						
Seaboard Lumber-Phase 2 Investigation	SD-4	03/28/96	Carcinogenic PAHs (calc'd)	2.52E-01	1.85						
EPA Site Inspection	DR044	08/12/98	Carcinogenic PAHs (calc'd)	2.50E-01	2.68						
LDWRI-Surface Sediment Round 2	LDW-SS3	03/09/05	Carcinogenic PAHs (calc'd)	2.30E-01	0.723						
LDWRI-Benthic	C2-1	08/26/04	Carcinogenic PAHs (calc'd)	2.20E-01	1.82						
LDW Outfall Sampling	LDW-SS2144-A	03/14/11	Carcinogenic PAHs (calc'd)	2.10E-01	0.849						
LDWRI-Surface Sediment Round 1	LDW-SS28	01/24/05	Carcinogenic PAHs (calc'd)	2.10E-01	1.22						
LDWRI-Surface Sediment Round 1	LDW-SS12	01/17/05	Carcinogenic PAHs (calc'd)	2.00E-01	1.88						
LDW Outfall Sampling	LDW-SS2232-U	04/20/11	Carcinogenic PAHs (calc'd)	2.00E-01	1.63						
Seaboard Lumber-Phase 2 Investigation	SD-18	03/28/96	Carcinogenic PAHs (calc'd)	1.95E-01	3.11						

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
Seaboard Lumber-Phase 2 Investigation	SD-5	03/28/96	Carcinogenic PAHs (calc'd)	1.90E-01	2.05						
LDWRI-Surface Sediment Round 3	LDW-SS314	10/04/06	Carcinogenic PAHs (calc'd)	1.84E-01 J							
LDW Outfall Sampling	LDW-SS2233-D	04/20/11	Carcinogenic PAHs (calc'd)	1.80E-01	0.617						
Seaboard Lumber-Phase 2 Investigation	SD-10	03/28/96	Carcinogenic PAHs (calc'd)	1.78E-01	2.57						
LDWRI-Surface Sediment Round 2	LDW-SS29	03/14/05	Carcinogenic PAHs (calc'd)	1.70E-01	1.68						
LDWRI-Surface Sediment Round 3	LDW-SS313	10/04/06	Carcinogenic PAHs (calc'd)	1.70E-01 J							
Seaboard Lumber-Phase 2 Investigation	SD-15	03/28/96	Carcinogenic PAHs (calc'd)	1.66E-01	1.46						
Seaboard Lumber-Phase 2 Investigation	SD-1	03/28/96	Carcinogenic PAHs (calc'd)	1.47E-01	3.4						
Seaboard Lumber-Phase 2 Investigation	SD-11	03/28/96	Carcinogenic PAHs (calc'd)	1.41E-01	2.7						
Seaboard Lumber-Phase 2 Investigation	SD-12	03/28/96	Carcinogenic PAHs (calc'd)	1.40E-01	2.43						
LDWRI-Surface Sediment Round 1	LDW-SS15	01/17/05	Carcinogenic PAHs (calc'd)	1.40E-01	1.79						
Seaboard Lumber-Phase 2 Investigation	SD-13	03/28/96	Carcinogenic PAHs (calc'd)	1.36E-01	2.64						
Seaboard Lumber-Phase 2 Investigation	SD-2	03/28/96	Carcinogenic PAHs (calc'd)	1.33E-01	1.74						
LDWRI-Benthic	C3-1	08/27/04	Carcinogenic PAHs (calc'd)	1.30E-01	0.93						
LDW Outfall Sampling	LDW-SS2147-D	03/14/11	Carcinogenic PAHs (calc'd)	1.30E-01	0.782						
LDW Outfall Sampling	LDW-SS2150-A	04/20/11	Carcinogenic PAHs (calc'd)	1.30E-01	4.42						
Seaboard Lumber-Phase 2 Investigation	SD-7	03/28/96	Carcinogenic PAHs (calc'd)	1.30E-01	1.76						
Seaboard Lumber-Phase 2 Investigation	SD-20	03/28/96	Carcinogenic PAHs (calc'd)	1.22E-01	1.13						
LDWRI-Benthic	C3-2	08/27/04	Carcinogenic PAHs (calc'd)	1.10E-01	1.31						
LDWRI-Surface Sediment Round 3	LDW-SS315	10/04/06	Carcinogenic PAHs (calc'd)	1.10E-01 J							
Seaboard Lumber-Phase 2 Investigation	SD-9	03/28/96	Carcinogenic PAHs (calc'd)	1.08E-01	1.68						
Terminal 105 Site Assessment	SS3	11/17/93	Carcinogenic PAHs (calc'd)	1.06E-01	0.13						
Seaboard Lumber-Phase 2 Investigation	SD-14	03/28/96	Carcinogenic PAHs (calc'd)	1.01E-01	1.68						
Seaboard Lumber-Phase 2 Investigation	SD-8	03/28/96	Carcinogenic PAHs (calc'd)	9.88E-02	1.78						
Seaboard Lumber-Phase 2 Investigation	SD-19	03/28/96	Carcinogenic PAHs (calc'd)	8.91E-02	2.75						
Seaboard Lumber-Phase 2 Investigation	SD-6	03/28/96	Carcinogenic PAHs (calc'd)	8.63E-02	1.79						
LDW Outfall Sampling	LDW-SS2146-A	03/14/11	Carcinogenic PAHs (calc'd)	8.60E-02 J	1.01						
LDWRI-Surface Sediment Round 1	LDW-SS33	01/26/05	Carcinogenic PAHs (calc'd)	8.10E-02 J	1.66						
LDWRI-Surface Sediment Round 1	LDW-SS14	01/17/05	Carcinogenic PAHs (calc'd)	7.70E-02	0.79						
LDWRI-Benthic	B1a	08/13/04	Carcinogenic PAHs (calc'd)	7.40E-02	1.7						
LDWRI-Surface Sediment Round 2	LDW-SS34	03/14/05	Carcinogenic PAHs (calc'd)	7.20E-02	1.52						
KC CSO Water Quality Assessment	KI-4	09/24/97	Carcinogenic PAHs (calc'd)	5.60E-02	0.71						
KC CSO Water Quality Assessment	KI-4	09/24/97	Carcinogenic PAHs (calc'd)	4.83E-02 J	0.81						
LDW Outfall Sampling	LDW-SS2232-A	04/20/11	Carcinogenic PAHs (calc'd)	4.70E-02	1.11						
LDWRI-Surface Sediment Round 1	LDW-SS23	01/18/05	Carcinogenic PAHs (calc'd)	4.30E-02	1.23						
LDWRI-Benthic	C2-2	08/26/04	Carcinogenic PAHs (calc'd)	3.40E-02 J	1.06						
LDWRI-Benthic	B3a	08/26/04	Carcinogenic PAHs (calc'd)	3.00E-02 J	1.36						
EPA Site Inspection	DR076	08/24/98	Carcinogenic PAHs (calc'd)	3.00E-02	0.1						
KC CSO Water Quality Assessment	KI-4	09/24/97	Carcinogenic PAHs (calc'd)	2.70E-02	0.91						
LDW Outfall Sampling	LDW-SS2233-U	04/20/11	Carcinogenic PAHs (calc'd)	2.70E-02 J	0.38						
LDWRI-Benthic	C1	08/26/04	Carcinogenic PAHs (calc'd)	2.30E-02 J	0.47						
Seaboard Lumber-Phase 2 Investigation	SD-6	03/28/96	Carcinogenic PAHs (calc'd)	2.00E-02	1.79						
LDW Outfall Sampling	LDW-SS2232-D	04/20/11	Carcinogenic PAHs (calc'd)	1.40E-02 J	0.778						
LDWRI-Surface Sediment Round 1	LDW-SS14	01/17/05	Chromium	6.05E+01	0.79		260	270	mg/kg DW	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
EPA Site Inspection	DR044	08/12/98	Chromium	5.50E+01	2.68		260	270	mg/kg DW	<1	<1
EPA Site Inspection	DR038	09/02/98	Chromium	5.20E+01	2.62		260	270	mg/kg DW	<1	<1
EPA Site Inspection	DR036	08/12/98	Chromium	5.10E+01 J			260	270	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2149-A	04/20/11	Chromium	4.90E+01 J	9.22		260	270	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS24	03/14/05	Chromium	4.80E+01	5.99		260	270	mg/kg DW	<1	<1
EPA Site Inspection	DR040	08/12/98	Chromium	4.60E+01 J	4.69		260	270	mg/kg DW	<1	<1
Terminal 105 Site Assessment	SS1	11/23/93	Chromium	4.50E+01 T	1.9		260	270	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-10	03/28/96	Chromium	4.40E+01	2.57		260	270	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2147-D	03/14/11	Chromium	4.39E+01	0.782		260	270	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS16	03/08/05	Chromium	4.30E+01	2.11		260	270	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-2	03/28/96	Chromium	4.30E+01	1.74		260	270	mg/kg DW	<1	<1
EPA Site Inspection	DR035	08/11/98	Chromium	4.20E+01	2.29		260	270	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-1	03/28/96	Chromium	4.20E+01	3.4		260	270	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-7	03/28/96	Chromium	4.20E+01	1.76		260	270	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-8	03/28/96	Chromium	4.20E+01	1.78		260	270	mg/kg DW	<1	<1
Ecology SPI	TRI-016	08/08/06	Chromium	4.17E+01 J	2.38		260	270	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-17	03/28/96	Chromium	4.11E+01	2.66		260	270	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS19	03/08/05	Chromium	4.06E+01	2.07		260	270	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS10	01/17/05	Chromium	4.00E+01	1.63		260	270	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-11	03/28/96	Chromium	4.00E+01	2.7		260	270	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-12	03/28/96	Chromium	4.00E+01	2.43		260	270	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-9	03/28/96	Chromium	4.00E+01	1.68		260	270	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	KI-1	09/24/97	Chromium	3.99E+01	2.59		260	270	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	KI-3	09/24/97	Chromium	3.98E+01	2.24		260	270	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	KI-3	09/24/97	Chromium	3.97E+01	2.145		260	270	mg/kg DW	<1	<1
Ecology SPI	TRI-010	08/08/06	Chromium	3.96E+01 J	2.2		260	270	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	KI-3	09/24/97	Chromium	3.95E+01	2.05		260	270	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-3	03/28/96	Chromium	3.95E+01	2.22		260	270	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS15	01/17/05	Chromium	3.90E+01	1.79		260	270	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-5	03/28/96	Chromium	3.90E+01	2.05		260	270	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	WQAKELL	03/12/97	Chromium	3.87E+01	2.09		260	270	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2146-A	03/14/11	Chromium	3.84E+01	1.01		260	270	mg/kg DW	<1	<1
EPA Site Inspection	DR044	08/12/98	Chromium	3.80E+01	2.08		260	270	mg/kg DW	<1	<1
EPA Site Inspection	DR078	08/24/98	Chromium	3.80E+01	2.07		260	270	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS36	01/24/05	Chromium	3.80E+01	1.89		260	270	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-13	03/28/96	Chromium	3.80E+01	2.64		260	270	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-4	03/28/96	Chromium	3.80E+01	1.85		260	270	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-6	03/28/96	Chromium	3.80E+01	1.79		260	270	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-6	03/28/96	Chromium	3.80E+01	1.79		260	270	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	KI-1	09/24/97	Chromium	3.78E+01	2.44		260	270	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS311	10/03/06	Chromium	3.70E+01	4.36		260	270	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	WQAKELL	03/06/97	Chromium	3.70E+01	2.27		260	270	mg/kg DW	<1	<1
Ecology SPI	TRI-015T	08/08/06	Chromium	3.67E+01 J	2.16		260	270	mg/kg DW	<1	<1
EPA Site Inspection	DR042	08/12/98	Chromium	3.60E+01 J	9.23		260	270	mg/kg DW	<1	<1
EPA Site Inspection	DR068	08/18/98	Chromium	3.60E+01	2.36		260	270	mg/kg DW	<1	<1
EPA Site Inspection	DR077	08/24/98	Chromium	3.60E+01	1.61		260	270	mg/kg DW	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
LDWRI-Surface Sediment Round 2	LDW-SS29	03/14/05	Chromium	3.60E+01	1.68		260	270	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	KI-1	09/24/97	Chromium	3.56E+01	2.29		260	270	mg/kg DW	<1	<1
EPA Site Inspection	DR037	08/18/98	Chromium	3.50E+01	2.02		260	270	mg/kg DW	<1	<1
EPA Site Inspection	DR041	08/12/98	Chromium	3.50E+01 J	2.43		260	270	mg/kg DW	<1	<1
EPA Site Inspection	DR079	08/24/98	Chromium	3.50E+01	2.18		260	270	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS310	10/03/06	Chromium	3.50E+01	1.63		260	270	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2144-A	03/14/11	Chromium	3.47E+01	0.849		260	270	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	KI-2	09/24/97	Chromium	3.45E+01	2.09		260	270	mg/kg DW	<1	<1
EPA Site Inspection	DR039	08/12/98	Chromium	3.40E+01 J			260	270	mg/kg DW	<1	<1
EPA Site Inspection	DR047	09/14/98	Chromium	3.40E+01	1.4		260	270	mg/kg DW	<1	<1
EPA Site Inspection	DR069	08/18/98	Chromium	3.40E+01 J			260	270	mg/kg DW	<1	<1
EPA Site Inspection	DR080	08/24/98	Chromium	3.40E+01	1.82		260	270	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SSSWCSO-U	04/08/11	Chromium	3.40E+01	1.2		260	270	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	WQAKELL	04/08/97	Chromium	3.37E+01	2.04		260	270	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	KI-2	09/24/97	Chromium	3.36E+01	2.06		260	270	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS309	10/03/06	Chromium	3.34E+01	2.02		260	270	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	WQAKELL	05/01/97	Chromium	3.34E+01	2.03		260	270	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS12	01/17/05	Chromium	3.31E+01	1.88		260	270	mg/kg DW	<1	<1
EPA Site Inspection	DR034	08/11/98	Chromium	3.30E+01	1.84		260	270	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SSSWCSO-A	04/08/11	Chromium	3.30E+01	2.69		260	270	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS308	10/03/06	Chromium	3.29E+01	1.86		260	270	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	KI-2	09/24/97	Chromium	3.26E+01	2.03		260	270	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	WQAKELL	04/03/97	Chromium	3.24E+01	2.17		260	270	mg/kg DW	<1	<1
Ecology SPI	SPI-108	08/11/06	Chromium	3.22E+01	1.55		260	270	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	WQAKELL	05/08/97	Chromium	3.22E+01	2.05		260	270	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS28	01/24/05	Chromium	3.21E+01	1.22		260	270	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2157-A	03/24/11	Chromium	3.20E+01	1.81		260	270	mg/kg DW	<1	<1
EPA Site Inspection	DR066	08/18/98	Chromium	3.10E+01	2.25		260	270	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-14	03/28/96	Chromium	3.08E+01	1.68		260	270	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	WQAKELL	04/24/97	Chromium	3.08E+01	2.06		260	270	mg/kg DW	<1	<1
EPA Site Inspection	DR048	08/12/98	Chromium	3.00E+01 J	2.03		260	270	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	WQAKELL	03/27/97	Chromium	3.00E+01	2.07		260	270	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	WQAKELL	04/17/97	Chromium	3.00E+01	2.19		260	270	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS33	01/26/05	Chromium	2.94E+01	1.66		260	270	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS312	10/03/06	Chromium	2.90E+01	4.2		260	270	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-18	03/28/96	Chromium	2.87E+01	3.11		260	270	mg/kg DW	<1	<1
EPA Site Inspection	DR070	08/12/98	Chromium	2.80E+01 J	1.75		260	270	mg/kg DW	<1	<1
LDWRI-Benthic	B2a	08/13/04	Chromium	2.78E+01	1.97		260	270	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-15	03/28/96	Chromium	2.73E+01	1.46		260	270	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-19	03/28/96	Chromium	2.68E+01	2.75		260	270	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-20	03/28/96	Chromium	2.66E+01	1.13		260	270	mg/kg DW	<1	<1
EPA Site Inspection	DR043	08/12/98	Chromium	2.60E+01 J	4.48		260	270	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2233-U	04/20/11	Chromium	2.56E+01 J	0.38		260	270	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-16	03/28/96	Chromium	2.52E+01	2.99		260	270	mg/kg DW	<1	<1
Puget Sound Sediment Quality/ NOAA Site Characterization	203	06/22/98	Chromium	2.50E+01	1.5		260	270	mg/kg DW	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
EPA Site Inspection	DR032	08/11/98	Chromium	2.40E+01	1.79		260	270	mg/kg DW	<1	<1
EPA Site Inspection	DR033	08/11/98	Chromium	2.40E+01	1.72		260	270	mg/kg DW	<1	<1
EPA Site Inspection	DR044	08/12/98	Chromium	2.40E+01 J	2.22		260	270	mg/kg DW	<1	<1
EPA Site Inspection	DR045	09/14/98	Chromium	2.40E+01	2.92		260	270	mg/kg DW	<1	<1
Terminal 105 Site Assessment	SS2	11/17/93	Chromium	2.30E+01 T	0.98		260	270	mg/kg DW	<1	<1
EPA Site Inspection	DR031	08/11/98	Chromium	2.20E+01	2.07		260	270	mg/kg DW	<1	<1
EPA Site Inspection	DR046	08/12/98	Chromium	2.20E+01 J	2.26		260	270	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2232-A	04/20/11	Chromium	2.17E+01 J	1.11		260	270	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS9	03/14/05	Chromium	2.08E+01	1.79		260	270	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS306	10/03/06	Chromium	1.98E+01	0.284		260	270	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2148-A	04/20/11	Chromium	1.90E+01 J	5.62		260	270	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS314	10/04/06	Chromium	1.90E+01	2.81		260	270	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS315	10/04/06	Chromium	1.90E+01	1.74		260	270	mg/kg DW	<1	<1
LDWRI-Benthic	B1a	08/13/04	Chromium	1.81E+01	1.7		260	270	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS313	10/04/06	Chromium	1.80E+01	1.95		260	270	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2150-A	04/20/11	Chromium	1.70E+01 J	4.42		260	270	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS3	03/09/05	Chromium	1.68E+01	0.723		260	270	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2232-U	04/20/11	Chromium	1.67E+01 J	1.63		260	270	mg/kg DW	<1	<1
EPA Site Inspection	DR067	08/18/98	Chromium	1.60E+01	0.82		260	270	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS23	01/18/05	Chromium	1.54E+01	1.23		260	270	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2233-D	04/20/11	Chromium	1.40E+01 J	0.617		260	270	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SSC1	03/15/05	Chromium	1.39E+01	0.625		260	270	mg/kg DW	<1	<1
LDWRI-Benthic	B3a	08/26/04	Chromium	1.34E+01	1.36		260	270	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2232-D	04/20/11	Chromium	1.33E+01 J	0.778		260	270	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	KI-4	09/24/97	Chromium	1.31E+01	0.71		260	270	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	KI-4	09/24/97	Chromium	1.24E+01	0.81		260	270	mg/kg DW	<1	<1
LDWRI-Benthic	C3-1	08/27/04	Chromium	1.22E+01	0.93		260	270	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	KI-4	09/24/97	Chromium	1.17E+01	0.91		260	270	mg/kg DW	<1	<1
LDWRI-Benthic	C2-1	08/26/04	Chromium	1.14E+01	1.82		260	270	mg/kg DW	<1	<1
LDWRI-Benthic	C3-2	08/27/04	Chromium	1.06E+01	1.31		260	270	mg/kg DW	<1	<1
EPA Site Inspection	DR076	08/24/98	Chromium	1.00E+01	0.1		260	270	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS34	03/14/05	Chromium	9.90E+00	1.52		260	270	mg/kg DW	<1	<1
LDWRI-Benthic	C2-2	08/26/04	Chromium	9.84E+00	1.06		260	270	mg/kg DW	<1	<1
LDWRI-Benthic	C1	08/26/04	Chromium	9.10E+00	0.47		260	270	mg/kg DW	<1	<1
Terminal 105 Site Assessment	SS3	11/17/93	Chromium	5.30E+00 T	0.13		260	270	mg/kg DW	<1	<1
EPA Site Inspection	DR044	08/12/98	Chrysene	4.60E+00	2.08	2.21E+02	110	460	mg/kg OC	2.0	<1
LDWRI-Surface Sediment Round 2	LDW-SS24[a]	03/14/05	Chrysene	3.60E+00	5.99		1.4	2.8	mg/kg DW	2.6	1.3
LDWRI-Surface Sediment Round 3	LDW-SS312[a]	10/03/06	Chrysene	3.00E+00	4.2		1.4	2.8	mg/kg DW	2.1	1.1
LDW Dioxin Sampling	LDW-SS509[a]	12/15/09	Chrysene	2.60E+00	7.08		1.4	2.8	mg/kg DW	1.9	<1
EPA Site Inspection	DR033	08/11/98	Chrysene	2.40E+00	1.72	1.40E+02	110	460	mg/kg OC	1.3	<1
EPA Site Inspection	DR038	09/02/98	Chrysene	2.20E+00	2.62	8.40E+01	110	460	mg/kg OC	<1	<1
EPA Site Inspection	DR040[a]	08/12/98	Chrysene	2.10E+00	4.69	4.48E+01	1.4	2.8	mg/kg DW	1.5	<1
LDWRI-Surface Sediment Round 3	LDW-SS311[a]	10/03/06	Chrysene	1.80E+00	4.36		1.4	2.8	mg/kg DW	1.3	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
EPA Site Inspection	DR047	09/14/98	Chrysene	1.50E+00	1.4	1.07E+02	110	460	mg/kg OC	<1	<1
Terminal 105 Site Assessment	SS1	11/23/93	Chrysene	1.30E+00	1.9	6.84E+01	110	460	mg/kg OC	<1	<1
EPA Site Inspection	DR048	08/12/98	Chrysene	1.10E+00	2.03	5.42E+01	110	460	mg/kg OC	<1	<1
EPA Site Inspection	DR037	08/18/98	Chrysene	9.90E-01	2.02	4.90E+01	110	460	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SSSWCSO-U	04/08/11	Chrysene	9.80E-01	1.2	8.17E+01	110	460	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS9	03/14/05	Chrysene	9.50E-01	1.79	5.31E+01	110	460	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2150-A[a]	04/20/11	Chrysene	9.20E-01	5.62		1.4	2.8	mg/kg DW	<1	<1
EPA Site Inspection	DR035	08/11/98	Chrysene	9.10E-01	2.29	3.97E+01	110	460	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS36	01/24/05	Chrysene	8.90E-01	1.89	4.71E+01	110	460	mg/kg OC	<1	<1
EPA Site Inspection	DR031	08/11/98	Chrysene	7.90E-01	2.07	3.82E+01	110	460	mg/kg OC	<1	<1
Ecology SPI	TRI-015T	08/08/06	Chrysene	7.58E-01	2.16	3.51E+01	110	460	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS310	10/03/06	Chrysene	7.20E-01	1.63	4.42E+01	110	460	mg/kg OC	<1	<1
Ecology SPI	TRI-010	08/08/06	Chrysene	6.68E-01	2.2	3.04E+01	110	460	mg/kg OC	<1	<1
Ecology SPI	SPI-108	08/11/06	Chrysene	6.54E-01	1.55	4.22E+01	110	460	mg/kg OC	<1	<1
EPA Site Inspection	DR034	08/11/98	Chrysene	5.80E-01	1.84	3.15E+01	110	460	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS309	10/03/06	Chrysene	5.80E-01	2.02	2.87E+01	110	460	mg/kg OC	<1	<1
EPA Site Inspection	DR066	08/18/98	Chrysene	5.70E-01	2.25	2.53E+01	110	460	mg/kg OC	<1	<1
EPA Site Inspection	DR077	08/24/98	Chrysene	5.70E-01	1.61	3.54E+01	110	460	mg/kg OC	<1	<1
EPA Site Inspection	DR068	08/18/98	Chrysene	5.60E-01	2.36	2.37E+01	110	460	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SSSWCSO-A	04/08/11	Chrysene	5.60E-01	2.69	2.08E+01	110	460	mg/kg OC	<1	<1
EPA Site Inspection	DR041	08/12/98	Chrysene	5.50E-01	2.43	2.26E+01	110	460	mg/kg OC	<1	<1
EPA Site Inspection	DR039	08/12/98	Chrysene	5.40E-01	2.43	2.22E+01	110	460	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS16	03/08/05	Chrysene	5.20E-01	2.11	2.46E+01	110	460	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS308	10/03/06	Chrysene	5.00E-01	1.86	2.69E+01	110	460	mg/kg OC	<1	<1
EPA Site Inspection	DR079	08/24/98	Chrysene	4.80E-01	2.18	2.20E+01	110	460	mg/kg OC	<1	<1
Harbor Island RI	K-05	09/27/91	Chrysene	4.80E-01 J	1.6	3.00E+01	110	460	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2157-A	03/24/11	Chrysene	4.70E-01	1.81	2.60E+01	110	460	mg/kg OC	<1	<1
Puget Sound Sediment Quality/ NOAA Site Characterization	203	06/22/98	Chrysene	4.61E-01	1.5	3.07E+01	110	460	mg/kg OC	<1	<1
EPA Site Inspection	DR078	08/24/98	Chrysene	4.60E-01	2.07	2.22E+01	110	460	mg/kg OC	<1	<1
Ecology SPI	TRI-016	08/08/06	Chrysene	4.55E-01	2.38	1.91E+01	110	460	mg/kg OC	<1	<1
EPA Site Inspection	DR032	08/11/98	Chrysene	4.50E-01	1.79	2.51E+01	110	460	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS19	03/08/05	Chrysene	4.40E-01	2.07	2.13E+01	110	460	mg/kg OC	<1	<1
EPA Site Inspection	DR069	08/18/98	Chrysene	4.20E-01	1.92	2.19E+01	110	460	mg/kg OC	<1	<1
EPA Site Inspection	DR067	08/18/98	Chrysene	4.00E-01	0.82	4.88E+01	110	460	mg/kg OC	<1	<1
EPA Site Inspection	DR042[a]	08/12/98	Chrysene	3.60E-01	9.23	3.90E+00	1.4	2.8	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2150-A[a]	04/20/11	Chrysene	3.50E-01	9.22		1.4	2.8	mg/kg DW	<1	<1
EPA Site Inspection	DR070	08/12/98	Chrysene	3.30E-01	1.75	1.89E+01	110	460	mg/kg OC	<1	<1
EPA Site Inspection	DR080	08/24/98	Chrysene	3.30E-01	1.82	1.81E+01	110	460	mg/kg OC	<1	<1
EPA Site Inspection	DR046	08/12/98	Chrysene	3.10E-01	2.26	1.37E+01	110	460	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	03/06/97	Chrysene	2.90E-01 J	2.03	1.43E+01	110	460	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2144-A	03/14/11	Chrysene	2.80E-01	0.849	3.30E+01	110	460	mg/kg OC	<1	<1
Terminal 105 Site Assessment	SS2	11/17/93	Chrysene	2.80E-01	0.98	2.86E+01	110	460	mg/kg OC	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
KC CSO Water Quality Assessment	WQAKELL	03/12/97	Chrysene	2.78E-01	2.27	1.22E+01	110	460	mg/kg OC	<1	<1
LDWRI-Benthic	B2a	08/13/04	Chrysene	2.70E-01	1.97	1.37E+01	110	460	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS12	01/17/05	Chrysene	2.60E-01	1.88	1.38E+01	110	460	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	04/17/97	Chrysene	2.53E-01	2.17	1.17E+01	110	460	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	05/01/97	Chrysene	2.52E-01	2.07	1.22E+01	110	460	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS15	01/17/05	Chrysene	2.40E-01	1.79	1.34E+01	110	460	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS28	01/24/05	Chrysene	2.40E-01	1.22	1.97E+01	110	460	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-1	09/24/97	Chrysene	2.30E-01 J	2.59	8.88E+00	110	460	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-1	09/24/97	Chrysene	2.30E-01 J	2.44	9.41E+00	110	460	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-1	09/24/97	Chrysene	2.29E-01	2.29	1.00E+01	110	460	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-2	09/24/97	Chrysene	2.21E-01	2.09	1.06E+01	110	460	mg/kg OC	<1	<1
EPA Site Inspection	DR043[a]	08/12/98	Chrysene	2.20E-01	4.48	4.91E+00	1.4	2.8	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2232-U	04/20/11	Chrysene	2.10E-01	1.63	1.29E+01	110	460	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	04/03/97	Chrysene	2.07E-01	2.09	9.90E+00	110	460	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS29	03/14/05	Chrysene	2.00E-01	1.68	1.19E+01	110	460	mg/kg OC	<1	<1
LDWRI-Benthic	C2-1	08/26/04	Chrysene	1.90E-01	1.82	1.04E+01	110	460	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-2	09/24/97	Chrysene	1.90E-01	2.06	9.22E+00	110	460	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS10	01/17/05	Chrysene	1.90E-01	1.63	1.17E+01	110	460	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-17	03/28/96	Chrysene	1.81E-01 J	2.66	6.80E+00	110	460	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2150-A[a]	04/20/11	Chrysene	1.70E-01	4.42		1.4	2.8	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2233-D	04/20/11	Chrysene	1.70E-01	0.617	2.76E+01	110	460	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-3	09/24/97	Chrysene	1.60E-01 J	2.24	7.14E+00	110	460	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS3	03/09/05	Chrysene	1.60E-01	0.723	2.21E+01	110	460	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-2	09/24/97	Chrysene	1.59E-01	2.03	7.83E+00	110	460	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS313	10/04/06	Chrysene	1.50E-01	1.95	7.69E+00	110	460	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS314	10/04/06	Chrysene	1.50E-01	2.81	5.34E+00	110	460	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS33	01/26/05	Chrysene	1.50E-01	1.66	9.04E+00	110	460	mg/kg OC	<1	<1
EPA Site Inspection	DR036	08/12/98	Chrysene	1.30E-01	3.37	3.86E+00	110	460	mg/kg OC	<1	<1
EPA Site Inspection	DR045	09/14/98	Chrysene	1.30E-01	2.92	4.45E+00	110	460	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-3	09/24/97	Chrysene	1.30E-01 J	2.145	6.06E+00	110	460	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2147-D	03/14/11	Chrysene	1.30E-01	0.782	1.66E+01	110	460	mg/kg OC	<1	<1
LDWRI-Benthic	C3-2	08/27/04	Chrysene	1.20E-01	1.31	9.16E+00	110	460	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-3	09/24/97	Chrysene	1.00E-01 J	2.05	4.88E+00	110	460	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS34	03/14/05	Chrysene	9.60E-02	1.52	6.32E+00	110	460	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS14	01/17/05	Chrysene	9.50E-02	0.79	1.20E+01	110	460	mg/kg OC	<1	<1
EPA Site Inspection	DR044	08/12/98	Chrysene	9.00E-02	2.22	4.05E+00	110	460	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2146-A	03/14/11	Chrysene	8.10E-02	1.01	8.02E+00	110	460	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-16	03/28/96	Chrysene	8.07E-02	2.99	2.70E+00	110	460	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS315	10/04/06	Chrysene	8.00E-02	1.74	4.60E+00	110	460	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-4	03/28/96	Chrysene	7.59E-02	1.85	4.10E+00	110	460	mg/kg OC	<1	<1
Terminal 105 Site Assessment	SS3[a]	11/17/93	Chrysene	6.60E-02 J	0.13		1.4	2.8	mg/kg DW	<1	<1
LDWRI-Benthic	C3-1	08/27/04	Chrysene	6.50E-02	0.93	6.99E+00	110	460	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-3	03/28/96	Chrysene	6.22E-02	2.22	2.80E+00	110	460	mg/kg OC	<1	<1
LDWRI-Benthic	B1a	08/13/04	Chrysene	6.20E-02	1.7	3.65E+00	110	460	mg/kg OC	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
Seaboard Lumber-Phase 2 Investigation	SD-18	03/28/96	Chrysene	5.60E-02	3.11	1.80E+00	110	460	mg/kg OC	<1	<1
EPA Site Inspection	DR044	08/12/98	Chrysene	5.00E-02	2.68	1.87E+00	110	460	mg/kg OC	<1	<1
LDWRI-Benthic	B3a	08/26/04	Chrysene	4.70E-02	1.36	3.46E+00	110	460	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-15	03/28/96	Chrysene	4.53E-02	1.46	3.10E+00	110	460	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-10	03/28/96	Chrysene	4.11E-02	2.57	1.60E+00	110	460	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-5	03/28/96	Chrysene	4.10E-02	2.05	2.00E+00	110	460	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-1	03/28/96	Chrysene	3.74E-02	3.4	1.10E+00	110	460	mg/kg OC	<1	<1
LDWRI-Benthic	C1[a]	08/26/04	Chrysene	3.60E-02	0.47		1.4	2.8	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS23	01/18/05	Chrysene	3.60E-02	1.23	2.93E+00	110	460	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-2	03/28/96	Chrysene	3.48E-02	1.74	2.00E+00	110	460	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2232-A	04/20/11	Chrysene	3.20E-02	1.11	2.88E+00	110	460	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-13	03/28/96	Chrysene	3.17E-02	2.64	1.20E+00	110	460	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-12	03/28/96	Chrysene	3.16E-02	2.43	1.30E+00	110	460	mg/kg OC	<1	<1
EPA Site Inspection	DR076[a]	08/24/98	Chrysene	3.00E-02	0.1	3.00E+01	1.4	2.8	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-7	03/28/96	Chrysene	2.99E-02	1.76	1.70E+00	110	460	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-11	03/28/96	Chrysene	2.97E-02	2.7	1.10E+00	110	460	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-20	03/28/96	Chrysene	2.94E-02	1.13	2.60E+00	110	460	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-9	03/28/96	Chrysene	2.69E-02	1.68	1.60E+00	110	460	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-4	09/24/97	Chrysene	2.60E-02	0.71	3.66E+00	110	460	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2233-U[a]	04/20/11	Chrysene	2.50E-02	0.38		1.4	2.8	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-19	03/28/96	Chrysene	2.45E-02	2.75	8.90E-01	110	460	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-14	03/28/96	Chrysene	2.18E-02	1.68	1.30E+00	110	460	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-8	03/28/96	Chrysene	2.14E-02	1.78	1.20E+00	110	460	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-6	03/28/96	Chrysene	2.00E-02	1.79	1.12E+00	110	460	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-4	09/24/97	Chrysene	1.98E-02	0.81	2.44E+00	110	460	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-6	03/28/96	Chrysene	1.97E-02	1.79	1.10E+00	110	460	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2232-D	04/20/11	Chrysene	1.50E-02 J	0.778	1.93E+00	110	460	mg/kg OC	<1	<1
LDWRI-Benthic	C2-2	08/26/04	Chrysene	1.20E-02	1.06	1.13E+00	110	460	mg/kg OC	<1	<1
EPA Site Inspection	DR042	08/12/98	Cobalt	1.50E+01	9.23						
EPA Site Inspection	DR038	09/02/98	Cobalt	1.30E+01	2.62						
EPA Site Inspection	DR078	08/24/98	Cobalt	1.30E+01	2.07						
EPA Site Inspection	DR037	08/18/98	Cobalt	1.20E+01	2.02						
EPA Site Inspection	DR079	08/24/98	Cobalt	1.20E+01	2.18						
EPA Site Inspection	DR080	08/24/98	Cobalt	1.20E+01	1.82						
LDWRI-Surface Sediment Round 3	LDW-SS315	10/04/06	Cobalt	1.20E+01	1.74						
LDWRI-Surface Sediment Round 2	LDW-SS19	03/08/05	Cobalt	1.14E+01	2.07						
LDWRI-Surface Sediment Round 1	LDW-SS10	01/17/05	Cobalt	1.11E+01	1.63						
EPA Site Inspection	DR039	08/12/98	Cobalt	1.10E+01	2.43						
EPA Site Inspection	DR041	08/12/98	Cobalt	1.10E+01	2.43						
EPA Site Inspection	DR066	08/18/98	Cobalt	1.10E+01	2.25						
EPA Site Inspection	DR068	08/18/98	Cobalt	1.10E+01	2.36						
EPA Site Inspection	DR069	08/18/98	Cobalt	1.10E+01	1.92						
EPA Site Inspection	DR077	08/24/98	Cobalt	1.10E+01	1.61						
LDWRI-Surface Sediment Round 2	LDW-SS16	03/08/05	Cobalt	1.10E+01	2.11						
LDWRI-Surface Sediment Round 1	LDW-SS15	01/17/05	Cobalt	1.04E+01	1.79						

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
EPA Site Inspection	DR035	08/11/98	Cobalt	1.00E+01	2.29						
EPA Site Inspection	DR036	08/12/98	Cobalt	1.00E+01	3.37						
EPA Site Inspection	DR040	08/12/98	Cobalt	1.00E+01	4.69						
EPA Site Inspection	DR044	08/12/98	Cobalt	1.00E+01	2.22						
EPA Site Inspection	DR048	08/12/98	Cobalt	1.00E+01	2.03						
LDWRI-Surface Sediment Round 1	LDW-SS36	01/24/05	Cobalt	9.80E+00	1.89						
EPA Site Inspection	DR034	08/11/98	Cobalt	9.00E+00	1.84						
EPA Site Inspection	DR044	08/12/98	Cobalt	9.00E+00	2.68						
EPA Site Inspection	DR070	08/12/98	Cobalt	9.00E+00	1.75						
LDWRI-Surface Sediment Round 3	LDW-SS310	10/03/06	Cobalt	9.00E+00	1.63						
LDWRI-Surface Sediment Round 3	LDW-SS309	10/03/06	Cobalt	8.90E+00	2.02						
LDWRI-Surface Sediment Round 2	LDW-SS29	03/14/05	Cobalt	8.70E+00	1.68						
LDWRI-Surface Sediment Round 1	LDW-SS14	01/17/05	Cobalt	8.60E+00	0.79						
LDWRI-Surface Sediment Round 1	LDW-SS12	01/17/05	Cobalt	8.50E+00	1.88						
LDWRI-Surface Sediment Round 3	LDW-SS308	10/03/06	Cobalt	8.20E+00	1.86						
LDWRI-Surface Sediment Round 3	LDW-SS311	10/03/06	Cobalt	8.10E+00	4.36						
EPA Site Inspection	DR032	08/11/98	Cobalt	8.00E+00	1.79						
LDWRI-Surface Sediment Round 2	LDW-SS24	03/14/05	Cobalt	8.00E+00	5.99						
Puget Sound Sediment Quality/ NOAA Site Characterization	203	06/22/98	Cobalt	7.11E+00	1.5						
EPA Site Inspection	DR031	08/11/98	Cobalt	7.00E+00	2.07						
EPA Site Inspection	DR033	08/11/98	Cobalt	7.00E+00	1.72						
EPA Site Inspection	DR047	09/14/98	Cobalt	7.00E+00	1.4						
LDWRI-Surface Sediment Round 3	LDW-SS306	10/03/06	Cobalt	7.00E+00	0.284						
LDWRI-Benthic	B2a	08/13/04	Cobalt	6.80E+00	1.97						
LDWRI-Surface Sediment Round 1	LDW-SS28	01/24/05	Cobalt	6.60E+00	1.22						
LDWRI-Surface Sediment Round 1	LDW-SS33	01/26/05	Cobalt	6.60E+00	1.66						
LDWRI-Surface Sediment Round 3	LDW-SS314	10/04/06	Cobalt	6.30E+00	2.81						
LDWRI-Benthic	B1a	08/13/04	Cobalt	6.10E+00	1.7						
EPA Site Inspection	DR043	08/12/98	Cobalt	6.00E+00	4.48						
EPA Site Inspection	DR044	08/12/98	Cobalt	6.00E+00	2.08						
EPA Site Inspection	DR045	09/14/98	Cobalt	6.00E+00	2.92						
EPA Site Inspection	DR046	08/12/98	Cobalt	6.00E+00	2.26						
EPA Site Inspection	DR067	08/18/98	Cobalt	6.00E+00	0.82						
LDWRI-Surface Sediment Round 2	LDW-SS9	03/14/05	Cobalt	5.90E+00	1.79						
LDWRI-Surface Sediment Round 2	LDW-SS3	03/09/05	Cobalt	5.80E+00	0.723						
LDWRI-Benthic	B3a	08/26/04	Cobalt	5.10E+00	1.36						
LDWRI-Surface Sediment Round 2	LDW-SSC1	03/15/05	Cobalt	5.00E+00	0.625						
LDWRI-Surface Sediment Round 3	LDW-SS312	10/03/06	Cobalt	4.90E+00	4.2						
LDWRI-Surface Sediment Round 1	LDW-SS23	01/18/05	Cobalt	4.80E+00	1.23						
LDWRI-Surface Sediment Round 2	LDW-SS34	03/14/05	Cobalt	4.60E+00	1.52						
EPA Site Inspection	DR076	08/24/98	Cobalt	4.00E+00	0.1						
LDWRI-Benthic	C1	08/26/04	Cobalt	3.83E+00	0.47						

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
LDWRI-Surface Sediment Round 3	LDW-SS313	10/04/06	Cobalt	3.60E+00	1.95						
LDWRI-Benthic	C2-1	08/26/04	Cobalt	3.26E+00	1.82						
LDWRI-Benthic	C3-1	08/27/04	Cobalt	3.12E+00	0.93						
LDWRI-Benthic	C2-2	08/26/04	Cobalt	3.07E+00	1.06						
LDWRI-Benthic	C3-2	08/27/04	Cobalt	2.82E+00	1.31						
Terminal 105 Site Assessment	SS1	11/23/93	Copper	2.80E+02 T	1.9		390	390	mg/kg DW	<1	<1
EPA Site Inspection	DR035	08/11/98	Copper	1.82E+02	2.29		390	390	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-17	03/28/96	Copper	1.77E+02	2.66		390	390	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS24	03/14/05	Copper	1.72E+02 J	5.99		390	390	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS19	03/08/05	Copper	1.31E+02	2.07		390	390	mg/kg DW	<1	<1
EPA Site Inspection	DR038	09/02/98	Copper	1.26E+02	2.62		390	390	mg/kg DW	<1	<1
Harbor Island RI	K-05	09/27/91	Copper	1.26E+02	1.6		390	390	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS16	03/08/05	Copper	1.24E+02	2.11		390	390	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2149-A	04/20/11	Copper	1.16E+02 J	9.22		390	390	mg/kg DW	<1	<1
EPA Site Inspection	DR042	08/12/98	Copper	1.15E+02	9.23		390	390	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS15	01/17/05	Copper	1.09E+02	1.79		390	390	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS10	01/17/05	Copper	1.06E+02	1.63		390	390	mg/kg DW	<1	<1
Ecology SPI	TRI-016	08/08/06	Copper	1.05E+02	2.38		390	390	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS36	01/24/05	Copper	1.04E+02	1.89		390	390	mg/kg DW	<1	<1
EPA Site Inspection	DR040	08/12/98	Copper	1.01E+02	4.69		390	390	mg/kg DW	<1	<1
Ecology SPI	TRI-015T	08/08/06	Copper	1.01E+02	2.16		390	390	mg/kg DW	<1	<1
LDWRI-Benthic	C3-1	08/27/04	Copper	9.85E+01	0.93		390	390	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS310	10/03/06	Copper	9.40E+01	1.63		390	390	mg/kg DW	<1	<1
Ecology SPI	TRI-010	08/08/06	Copper	9.36E+01	2.2		390	390	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-3	03/28/96	Copper	9.34E+01	2.22		390	390	mg/kg DW	<1	<1
EPA Site Inspection	DR031	08/11/98	Copper	9.30E+01	2.07		390	390	mg/kg DW	<1	<1
EPA Site Inspection	DR039	08/12/98	Copper	9.20E+01	2.43		390	390	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS311	10/03/06	Copper	9.20E+01	4.36		390	390	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS309	10/03/06	Copper	9.06E+01	2.02		390	390	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS12	01/17/05	Copper	8.97E+01	1.88		390	390	mg/kg DW	<1	<1
EPA Site Inspection	DR077	08/24/98	Copper	8.90E+01	1.61		390	390	mg/kg DW	<1	<1
EPA Site Inspection	DR044	08/12/98	Copper	8.60E+01	2.68		390	390	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS308	10/03/06	Copper	8.44E+01	1.86		390	390	mg/kg DW	<1	<1
EPA Site Inspection	DR041	08/12/98	Copper	8.40E+01	2.43		390	390	mg/kg DW	<1	<1
EPA Site Inspection	DR068	08/18/98	Copper	8.40E+01	2.36		390	390	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-11	03/28/96	Copper	8.31E+01	2.7		390	390	mg/kg DW	<1	<1
EPA Site Inspection	DR079	08/24/98	Copper	8.30E+01	2.18		390	390	mg/kg DW	<1	<1
EPA Site Inspection	DR034	08/11/98	Copper	8.20E+01	1.84		390	390	mg/kg DW	<1	<1
EPA Site Inspection	DR078	08/24/98	Copper	8.20E+01	2.07		390	390	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	KI-2	09/24/97	Copper	8.12E+01	2.09		390	390	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS29	03/14/05	Copper	8.08E+01 J	1.68		390	390	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	KI-1	09/24/97	Copper	8.05E+01	2.59		390	390	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-10	03/28/96	Copper	8.02E+01	2.57		390	390	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SSSWCSO-U	04/08/11	Copper	7.95E+01 J	1.2		390	390	mg/kg DW	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
Ecology SPI	SPI-108	08/11/06	Copper	7.95E+01	1.55		390	390	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-12	03/28/96	Copper	7.91E+01	2.43		390	390	mg/kg DW	<1	<1
EPA Site Inspection	DR044	08/12/98	Copper	7.90E+01	2.22		390	390	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS312	10/03/06	Copper	7.90E+01	4.2		390	390	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-5	03/28/96	Copper	7.82E+01	2.05		390	390	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	KI-1	09/24/97	Copper	7.76E+01	2.44		390	390	mg/kg DW	<1	<1
EPA Site Inspection	DR070	08/12/98	Copper	7.70E+01	1.75		390	390	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	KI-2	09/24/97	Copper	7.55E+01	2.06		390	390	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-1	03/28/96	Copper	7.54E+01	3.4		390	390	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	KI-1	09/24/97	Copper	7.46E+01	2.29		390	390	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-4	03/28/96	Copper	7.42E+01	1.85		390	390	mg/kg DW	<1	<1
EPA Site Inspection	DR037	08/18/98	Copper	7.40E+01	2.02		390	390	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	KI-3	09/24/97	Copper	7.34E+01	2.24		390	390	mg/kg DW	<1	<1
EPA Site Inspection	DR069	08/18/98	Copper	7.30E+01	1.92		390	390	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	WQAKELL	03/12/97	Copper	7.29E+01	2.09		390	390	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	KI-3	09/24/97	Copper	7.09E+01	2.145		390	390	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SSSWCSO-A	04/08/11	Copper	7.02E+01 J	2.69		390	390	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	WQAKELL	03/06/97	Copper	7.01E+01	2.27		390	390	mg/kg DW	<1	<1
EPA Site Inspection	DR066	08/18/98	Copper	7.00E+01	2.25		390	390	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	KI-2	09/24/97	Copper	6.98E+01	2.03		390	390	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-13	03/28/96	Copper	6.98E+01	2.64		390	390	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-8	03/28/96	Copper	6.94E+01	1.78		390	390	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2157-A	03/24/11	Copper	6.88E+01 J	1.81		390	390	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-9	03/28/96	Copper	6.87E+01	1.68		390	390	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	KI-3	09/24/97	Copper	6.84E+01	2.05		390	390	mg/kg DW	<1	<1
EPA Site Inspection	DR048	08/12/98	Copper	6.70E+01	2.03		390	390	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	WQAKELL	05/08/97	Copper	6.67E+01	2.05		390	390	mg/kg DW	<1	<1
EPA Site Inspection	DR033	08/11/98	Copper	6.60E+01	1.72		390	390	mg/kg DW	<1	<1
EPA Site Inspection	DR080	08/24/98	Copper	6.60E+01	1.82		390	390	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	WQAKELL	04/08/97	Copper	6.47E+01	2.04		390	390	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-7	03/28/96	Copper	6.45E+01	1.76		390	390	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	WQAKELL	04/03/97	Copper	6.40E+01	2.17		390	390	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	WQAKELL	05/01/97	Copper	6.35E+01	2.03		390	390	mg/kg DW	<1	<1
EPA Site Inspection	DR032	08/11/98	Copper	6.30E+01	1.79		390	390	mg/kg DW	<1	<1
Puget Sound Sediment Quality/	203	06/22/98	Copper	6.23E+01	1.5		390	390	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-6	03/28/96	Copper	6.12E+01	1.79		390	390	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-6	03/28/96	Copper	6.10E+01	1.79		390	390	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	WQAKELL	04/17/97	Copper	6.10E+01	2.07		390	390	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	WQAKELL	04/24/97	Copper	6.09E+01	2.06		390	390	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	WQAKELL	03/27/97	Copper	6.08E+01	2.19		390	390	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS315	10/04/06	Copper	6.07E+01	1.74		390	390	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-2	03/28/96	Copper	5.92E+01	1.74		390	390	mg/kg DW	<1	<1
EPA Site Inspection	DR047	09/14/98	Copper	5.80E+01	1.4		390	390	mg/kg DW	<1	<1
EPA Site Inspection	DR046	08/12/98	Copper	5.60E+01	2.26		390	390	mg/kg DW	<1	<1
EPA Site Inspection	DR043	08/12/98	Copper	5.50E+01	4.48		390	390	mg/kg DW	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
EPA Site Inspection	DR044	08/12/98	Copper	5.50E+01	2.08		390	390	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-14	03/28/96	Copper	5.18E+01	1.68		390	390	mg/kg DW	<1	<1
LDWRI-Benthic	B1a	08/13/04	Copper	5.02E+01	1.7		390	390	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-18	03/28/96	Copper	4.90E+01	3.11		390	390	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS28	01/24/05	Copper	4.78E+01	1.22		390	390	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-16	03/28/96	Copper	4.68E+01	2.99		390	390	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS9	03/14/05	Copper	4.67E+01 J	1.79		390	390	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-15	03/28/96	Copper	4.53E+01	1.46		390	390	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2233-U	04/20/11	Copper	4.42E+01 J	0.38		390	390	mg/kg DW	<1	<1
LDWRI-Benthic	B2a	08/13/04	Copper	4.36E+01	1.97		390	390	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2148-A	04/20/11	Copper	4.34E+01 J	5.62		390	390	mg/kg DW	<1	<1
EPA Site Inspection	DR045	09/14/98	Copper	4.30E+01	2.92		390	390	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2146-A	03/14/11	Copper	4.04E+01	1.01		390	390	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS3	03/09/05	Copper	4.04E+01	0.723		390	390	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2150-A	04/20/11	Copper	4.00E+01 J	4.42		390	390	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS314	10/04/06	Copper	4.00E+01	2.81		390	390	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2147-D	03/14/11	Copper	3.96E+01	0.782		390	390	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2232-A	04/20/11	Copper	3.87E+01 J	1.11		390	390	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2232-U	04/20/11	Copper	3.79E+01 J	1.63		390	390	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS313	10/04/06	Copper	3.60E+01	1.95		390	390	mg/kg DW	<1	<1
EPA Site Inspection	DR067	08/18/98	Copper	3.20E+01	0.82		390	390	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2144-A	03/14/11	Copper	3.04E+01	0.849		390	390	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-19	03/28/96	Copper	2.99E+01	2.75		390	390	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS33	01/26/05	Copper	2.94E+01	1.66		390	390	mg/kg DW	<1	<1
Terminal 105 Site Assessment	SS2	11/17/93	Copper	2.90E+01 T	0.98		390	390	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS306	10/03/06	Copper	2.77E+01	0.284		390	390	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2233-D	04/20/11	Copper	2.76E+01 J	0.617		390	390	mg/kg DW	<1	<1
EPA Site Inspection	DR036	08/12/98	Copper	2.70E+01	3.37		390	390	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS23	01/18/05	Copper	2.61E+01	1.23		390	390	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS14	01/17/05	Copper	2.54E+01	0.79		390	390	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-20	03/28/96	Copper	2.25E+01	1.13		390	390	mg/kg DW	<1	<1
LDWRI-Benthic	C3-2	08/27/04	Copper	2.19E+01	1.31		390	390	mg/kg DW	<1	<1
LDWRI-Benthic	C2-1	08/26/04	Copper	2.16E+01	1.82		390	390	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SSC1	03/15/05	Copper	1.91E+01	0.625		390	390	mg/kg DW	<1	<1
LDWRI-Benthic	B3a	08/26/04	Copper	1.87E+01	1.36		390	390	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	KI-4	09/24/97	Copper	1.82E+01	0.71		390	390	mg/kg DW	<1	<1
LDWRI-Benthic	C1	08/26/04	Copper	1.76E+01	0.47		390	390	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2232-D	04/20/11	Copper	1.73E+01 J	0.778		390	390	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	KI-4	09/24/97	Copper	1.65E+01	0.81		390	390	mg/kg DW	<1	<1
EPA Site Inspection	DR076	08/24/98	Copper	1.60E+01	0.1		390	390	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS34	03/14/05	Copper	1.60E+01 J	1.52		390	390	mg/kg DW	<1	<1
LDWRI-Benthic	C2-2	08/26/04	Copper	1.48E+01	1.06		390	390	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	KI-4	09/24/97	Copper	1.48E+01	0.91		390	390	mg/kg DW	<1	<1
Terminal 105 Site Assessment	SS3	11/17/93	Copper	1.40E+01 T	0.13		390	390	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	WQAKELL	03/12/97	Coprostanol	7.22E-01	2.27						

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
KC CSO Water Quality Assessment	WQAKELL	04/17/97	Coprostanol	6.75E-01	2.17						
KC CSO Water Quality Assessment	WQAKELL	03/06/97	Coprostanol	6.50E-01 J	2.07						
KC CSO Water Quality Assessment	WQAKELL	04/03/97	Coprostanol	6.38E-01	2.09						
Ecology SPI	TRI-015T	08/08/06	Coprostanol	2.83E-01 J	2.16						
Ecology SPI	TRI-016	08/08/06	Coprostanol	1.78E-01 J	2.38						
Ecology SPI	SPI-108	08/11/06	Coprostanol	1.75E-01 J	1.55						
LDWRI-Benthic	C3-2	08/27/04	DDTs (total-calc'd)	1.33E-02 J	1.31						
LDWRI-Benthic	B2a	08/13/04	DDTs (total-calc'd)	1.13E-02 JN	1.97						
LDWRI-Benthic	C2-2	08/26/04	DDTs (total-calc'd)	7.00E-03 J	1.06						
LDWRI-Benthic	C3-1	08/27/04	DDTs (total-calc'd)	6.10E-03 J	0.93						
Puget Sound Sediment Quality/ NOAA Site Characterization	203	06/22/98	DDTs (total-calc'd)	5.90E-03	1.5						
LDWRI-Benthic	C2-1	08/26/04	DDTs (total-calc'd)	5.50E-03 J	1.82						
LDWRI-Benthic	B3a	08/26/04	DDTs (total-calc'd)	3.70E-03 J	1.36						
LDWRI-Benthic	B1a	08/13/04	DDTs (total-calc'd)	9.00E-04 JN	1.7						
LDWRI-Benthic	C1	08/26/04	DDTs (total-calc'd)	7.20E-04 J	0.47						
LDW Dioxin Sampling	LDW-SS509[a]	12/15/09	Dibenzo(a,h)anthracene	5.00E-01	7.08		0.23	0.54	mg/kg DW	2.2	<1
LDWRI-Surface Sediment Round 2	LDW-SS24[a]	03/14/05	Dibenzo(a,h)anthracene	3.50E-01	5.99		0.23	0.54	mg/kg DW	1.5	<1
LDWRI-Surface Sediment Round 3	LDW-SS312[a]	10/03/06	Dibenzo(a,h)anthracene	3.20E-01	4.2		0.23	0.54	mg/kg DW	1.4	<1
EPA Site Inspection	DR033	08/11/98	Dibenzo(a,h)anthracene	1.90E-01	1.72	1.10E+01	12	33	mg/kg OC	<1	<1
EPA Site Inspection	DR040[a]	08/12/98	Dibenzo(a,h)anthracene	1.60E-01	4.69	3.41E+00	0.23	0.54	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS311[a]	10/03/06	Dibenzo(a,h)anthracene	1.60E-01	4.36		0.23	0.54	mg/kg DW	<1	<1
EPA Site Inspection	DR044	08/12/98	Dibenzo(a,h)anthracene	1.50E-01	2.08	7.21E+00	12	33	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2150-A[a]	04/20/11	Dibenzo(a,h)anthracene	1.40E-01	5.62		0.23	0.54	mg/kg DW	<1	<1
Ecology SPI	TRI-015T	08/08/06	Dibenzo(a,h)anthracene	1.34E-01	2.16	6.20E+00	12	33	mg/kg OC	<1	<1
Ecology SPI	TRI-010	08/08/06	Dibenzo(a,h)anthracene	1.33E-01	2.2	6.05E+00	12	33	mg/kg OC	<1	<1
EPA Site Inspection	DR038	09/02/98	Dibenzo(a,h)anthracene	1.30E-01	2.62	4.96E+00	12	33	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS9	03/14/05	Dibenzo(a,h)anthracene	1.30E-01	1.79	7.26E+00	12	33	mg/kg OC	<1	<1
EPA Site Inspection	DR035	08/11/98	Dibenzo(a,h)anthracene	1.00E-01	2.29	4.37E+00	12	33	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2150-A[a]	04/20/11	Dibenzo(a,h)anthracene	1.00E-01	9.22		0.23	0.54	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS310	10/03/06	Dibenzo(a,h)anthracene	9.80E-02	1.63	6.01E+00	12	33	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS308	10/03/06	Dibenzo(a,h)anthracene	9.30E-02	1.86	5.00E+00	12	33	mg/kg OC	<1	<1
Ecology SPI	TRI-016	08/08/06	Dibenzo(a,h)anthracene	9.30E-02	2.38	3.91E+00	12	33	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS309	10/03/06	Dibenzo(a,h)anthracene	9.10E-02	2.02	4.50E+00	12	33	mg/kg OC	<1	<1
EPA Site Inspection	DR047	09/14/98	Dibenzo(a,h)anthracene	9.00E-02	1.4	6.43E+00	12	33	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2144-A	03/14/11	Dibenzo(a,h)anthracene	8.10E-02	0.849	9.54E+00	12	33	mg/kg OC	<1	<1
EPA Site Inspection	DR031	08/11/98	Dibenzo(a,h)anthracene	8.00E-02	2.07	3.86E+00	12	33	mg/kg OC	<1	<1
EPA Site Inspection	DR048	08/12/98	Dibenzo(a,h)anthracene	7.00E-02	2.03	3.45E+00	12	33	mg/kg OC	<1	<1
EPA Site Inspection	DR034	08/11/98	Dibenzo(a,h)anthracene	6.00E-02	1.84	3.26E+00	12	33	mg/kg OC	<1	<1
EPA Site Inspection	DR037	08/18/98	Dibenzo(a,h)anthracene	6.00E-02	2.02	2.97E+00	12	33	mg/kg OC	<1	<1
EPA Site Inspection	DR041	08/12/98	Dibenzo(a,h)anthracene	6.00E-02	2.43	2.47E+00	12	33	mg/kg OC	<1	<1
EPA Site Inspection	DR066	08/18/98	Dibenzo(a,h)anthracene	6.00E-02	2.25	2.67E+00	12	33	mg/kg OC	<1	<1
EPA Site Inspection	DR068	08/18/98	Dibenzo(a,h)anthracene	6.00E-02	2.36	2.54E+00	12	33	mg/kg OC	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
Ecology SPI	SPI-108	08/11/06	Dibenzo(a,h)anthracene	6.00E-02	1.55	3.87E+00	12	33	mg/kg OC	<1	<1
Puget Sound Sediment Quality/ NOAA Site Characterization	203	06/22/98	Dibenzo(a,h)anthracene	5.80E-02	1.5	3.87E+00	12	33	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SSSWCSO-U	04/08/11	Dibenzo(a,h)anthracene	5.20E-02	1.2	4.33E+00	12	33	mg/kg OC	<1	<1
EPA Site Inspection	DR032	08/11/98	Dibenzo(a,h)anthracene	5.00E-02	1.79	2.79E+00	12	33	mg/kg OC	<1	<1
EPA Site Inspection	DR039	08/12/98	Dibenzo(a,h)anthracene	5.00E-02	2.43	2.06E+00	12	33	mg/kg OC	<1	<1
EPA Site Inspection	DR042[a]	08/12/98	Dibenzo(a,h)anthracene	5.00E-02	9.23	5.42E-01	0.23	0.54	mg/kg DW	<1	<1
EPA Site Inspection	DR046	08/12/98	Dibenzo(a,h)anthracene	5.00E-02	2.26	2.21E+00	12	33	mg/kg OC	<1	<1
EPA Site Inspection	DR069	08/18/98	Dibenzo(a,h)anthracene	5.00E-02	1.92	2.60E+00	12	33	mg/kg OC	<1	<1
EPA Site Inspection	DR077	08/24/98	Dibenzo(a,h)anthracene	5.00E-02	1.61	3.11E+00	12	33	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SSSWCSO-A	04/08/11	Dibenzo(a,h)anthracene	4.60E-02	2.69	1.71E+00	12	33	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2157-A	03/24/11	Dibenzo(a,h)anthracene	4.50E-02	1.81	2.49E+00	12	33	mg/kg OC	<1	<1
EPA Site Inspection	DR070	08/12/98	Dibenzo(a,h)anthracene	4.00E-02	1.75	2.29E+00	12	33	mg/kg OC	<1	<1
EPA Site Inspection	DR078	08/24/98	Dibenzo(a,h)anthracene	4.00E-02	2.07	1.93E+00	12	33	mg/kg OC	<1	<1
EPA Site Inspection	DR079	08/24/98	Dibenzo(a,h)anthracene	4.00E-02	2.18	1.83E+00	12	33	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2232-U	04/20/11	Dibenzo(a,h)anthracene	3.80E-02	1.63	2.33E+00	12	33	mg/kg OC	<1	<1
LDWRI-Benthic	B2a	08/13/04	Dibenzo(a,h)anthracene	3.40E-02	1.97	1.73E+00	12	33	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2233-D	04/20/11	Dibenzo(a,h)anthracene	3.30E-02	0.617	5.35E+00	12	33	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2147-D	03/14/11	Dibenzo(a,h)anthracene	3.00E-02	0.782	3.84E+00	12	33	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS12	01/17/05	Dibenzo(a,h)anthracene	2.20E-02	1.88	1.17E+00	12	33	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2150-A[a]	04/20/11	Dibenzo(a,h)anthracene	2.20E-02	4.42		0.23	0.54	mg/kg DW	<1	<1
LDWRI-Benthic	C2-1	08/26/04	Dibenzo(a,h)anthracene	2.10E-02	1.82	1.15E+00	12	33	mg/kg OC	<1	<1
EPA Site Inspection	DR036	08/12/98	Dibenzo(a,h)anthracene	2.00E-02	3.37	5.93E-01	12	33	mg/kg OC	<1	<1
EPA Site Inspection	DR044	08/12/98	Dibenzo(a,h)anthracene	2.00E-02	2.22	9.01E-01	12	33	mg/kg OC	<1	<1
EPA Site Inspection	DR045	09/14/98	Dibenzo(a,h)anthracene	2.00E-02	2.92	6.85E-01	12	33	mg/kg OC	<1	<1
EPA Site Inspection	DR080	08/24/98	Dibenzo(a,h)anthracene	2.00E-02	1.82	1.10E+00	12	33	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS3	03/09/05	Dibenzo(a,h)anthracene	2.00E-02	0.723	2.77E+00	12	33	mg/kg OC	<1	<1
LDWRI-Benthic	C3-2	08/27/04	Dibenzo(a,h)anthracene	1.80E-02	1.31	1.37E+00	12	33	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS313	10/04/06	Dibenzo(a,h)anthracene	1.70E-02 J	1.95	8.72E-01	12	33	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2146-A	03/14/11	Dibenzo(a,h)anthracene	1.60E-02 J	1.01	1.58E+00	12	33	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS315	10/04/06	Dibenzo(a,h)anthracene	1.60E-02	1.74	9.20E-01	12	33	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-17	03/28/96	Dibenzo(a,h)anthracene	1.49E-02	2.66	5.60E-01	12	33	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-3	03/28/96	Dibenzo(a,h)anthracene	8.88E-03	2.22	4.00E-01	12	33	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS314	10/04/06	Dibenzo(a,h)anthracene	8.10E-03 J	2.81	2.88E-01	12	33	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-16	03/28/96	Dibenzo(a,h)anthracene	7.17E-03	2.99	2.40E-01	12	33	mg/kg OC	<1	<1
LDWRI-Benthic	C3-1	08/27/04	Dibenzo(a,h)anthracene	7.00E-03	0.93	7.53E-01	12	33	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-10	03/28/96	Dibenzo(a,h)anthracene	6.93E-03	2.57	2.70E-01	12	33	mg/kg OC	<1	<1
LDWRI-Benthic	B1a	08/13/04	Dibenzo(a,h)anthracene	6.70E-03	1.7	3.94E-01	12	33	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-4	03/28/96	Dibenzo(a,h)anthracene	6.66E-03	1.85	3.60E-01	12	33	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-11	03/28/96	Dibenzo(a,h)anthracene	5.94E-03	2.7	2.20E-01	12	33	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-5	03/28/96	Dibenzo(a,h)anthracene	5.94E-03	2.05	2.90E-01	12	33	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2233-U[a]	04/20/11	Dibenzo(a,h)anthracene	5.90E-03	0.38		0.23	0.54	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-15	03/28/96	Dibenzo(a,h)anthracene	4.96E-03	1.46	3.40E-01	12	33	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2232-A	04/20/11	Dibenzo(a,h)anthracene	4.90E-03	1.11	4.41E-01	12	33	mg/kg OC	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
Seaboard Lumber-Phase 2 Investigation	SD-1	03/28/96	Dibenzo(a,h)anthracene	4.76E-03	3.4	1.40E-01	12	33	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-7	03/28/96	Dibenzo(a,h)anthracene	4.22E-03	1.76	2.40E-01	12	33	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-12	03/28/96	Dibenzo(a,h)anthracene	4.13E-03	2.43	1.70E-01	12	33	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-13	03/28/96	Dibenzo(a,h)anthracene	3.96E-03	2.64	1.50E-01	12	33	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-20	03/28/96	Dibenzo(a,h)anthracene	3.95E-03	1.13	3.50E-01	12	33	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-8	03/28/96	Dibenzo(a,h)anthracene	3.91E-03	1.78	2.20E-01	12	33	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-14	03/28/96	Dibenzo(a,h)anthracene	3.69E-03	1.68	2.20E-01	12	33	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-9	03/28/96	Dibenzo(a,h)anthracene	3.69E-03	1.68	2.20E-01	12	33	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-2	03/28/96	Dibenzo(a,h)anthracene	3.65E-03	1.74	2.10E-01	12	33	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-6	03/28/96	Dibenzo(a,h)anthracene	3.22E-03	1.79	1.80E-01	12	33	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-6	03/28/96	Dibenzo(a,h)anthracene	3.20E-03	1.79	1.79E-01	12	33	mg/kg OC	<1	<1
LDWRI-Benthic	B3a	08/26/04	Dibenzo(a,h)anthracene	2.40E-03 J	1.36	1.76E-01	12	33	mg/kg OC	<1	<1
LDWRI-Benthic	C1[a]	08/26/04	Dibenzo(a,h)anthracene	2.40E-03 J	0.47		0.23	0.54	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-19	03/28/96	Dibenzo(a,h)anthracene	2.20E-03	2.75	8.00E-02	12	33	mg/kg OC	<1	<1
LDWRI-Benthic	C2-2	08/26/04	Dibenzo(a,h)anthracene	1.60E-03 J	1.06	1.51E-01	12	33	mg/kg OC	<1	<1
EPA Site Inspection	DR037	08/18/98	Dibenzofuran	4.10E-01	2.02	2.03E+01	15	58	mg/kg OC	1.4	<1
EPA Site Inspection	DR038	09/02/98	Dibenzofuran	2.70E-01	2.62	1.03E+01	15	58	mg/kg OC	<1	<1
EPA Site Inspection	DR033	08/11/98	Dibenzofuran	2.50E-01	1.72	1.45E+01	15	58	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS312[a]	10/03/06	Dibenzofuran	1.30E-01	4.2		0.54	0.70	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS36	01/24/05	Dibenzofuran	1.30E-01	1.89	6.88E+00	15	58	mg/kg OC	<1	<1
EPA Site Inspection	DR040[a]	08/12/98	Dibenzofuran	1.10E-01	4.69		0.54	0.70	mg/kg DW	<1	<1
LDW Dioxin Sampling	LDW-SS509[a]	12/15/09	Dibenzofuran	7.50E-02	7.08		0.54	0.70	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SSSWCSO-U	04/08/11	Dibenzofuran	6.60E-02	1.2	5.50E+00	15	58	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS24[a]	03/14/05	Dibenzofuran	6.40E-02	5.99		0.54	0.70	mg/kg DW	<1	<1
EPA Site Inspection	DR067	08/18/98	Dibenzofuran	6.00E-02	0.82	7.32E+00	15	58	mg/kg OC	<1	<1
Ecology SPI	SPI-108	08/11/06	Dibenzofuran	6.00E-02	1.55	3.87E+00	15	58	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2157-A	03/24/11	Dibenzofuran	4.80E-02	1.81	2.65E+00	15	58	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS9	03/14/05	Dibenzofuran	4.40E-02	1.79	2.46E+00	15	58	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS16	03/08/05	Dibenzofuran	3.70E-02 J	2.11	1.75E+00	15	58	mg/kg OC	<1	<1
Puget Sound Sediment Quality/ NOAA Site Characterization	203	06/22/98	Dibenzofuran	3.10E-02	1.5	2.07E+00	15	58	mg/kg OC	<1	<1
EPA Site Inspection	DR035	08/11/98	Dibenzofuran	3.00E-02	2.29	1.31E+00	15	58	mg/kg OC	<1	<1
EPA Site Inspection	DR066	08/18/98	Dibenzofuran	3.00E-02	2.25	1.33E+00	15	58	mg/kg OC	<1	<1
EPA Site Inspection	DR068	08/18/98	Dibenzofuran	3.00E-02	2.36	1.27E+00	15	58	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS19	03/08/05	Dibenzofuran	2.90E-02 J	2.07	1.40E+00	15	58	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SSSWCSO-A	04/08/11	Dibenzofuran	2.70E-02	2.69	1.00E+00	15	58	mg/kg OC	<1	<1
Ecology SPI	TRI-015T	08/08/06	Dibenzofuran	2.10E-02	2.16	9.72E-01	15	58	mg/kg OC	<1	<1
EPA Site Inspection	DR031	08/11/98	Dibenzofuran	2.00E-02	2.07	9.66E-01	15	58	mg/kg OC	<1	<1
EPA Site Inspection	DR041	08/12/98	Dibenzofuran	2.00E-02	2.43	8.23E-01	15	58	mg/kg OC	<1	<1
EPA Site Inspection	DR044	08/12/98	Dibenzofuran	2.00E-02	2.08	9.62E-01	15	58	mg/kg OC	<1	<1
EPA Site Inspection	DR069	08/18/98	Dibenzofuran	2.00E-02	1.92	1.04E+00	15	58	mg/kg OC	<1	<1
EPA Site Inspection	DR077	08/24/98	Dibenzofuran	2.00E-02	1.61	1.24E+00	15	58	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2232-A	04/20/11	Dibenzofuran	1.80E-02 J	1.11	1.62E+00	15	58	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS3	03/09/05	Dibenzofuran	1.80E-02 J	0.723	2.49E+00	15	58	mg/kg OC	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
LDWRI-Benthic	C2-1	08/26/04	Dibenzofuran	1.70E-02	1.82	9.34E-01	15	58	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2150-A[a]	04/20/11	Dibenzofuran	1.70E-02 J	9.22		0.54	0.70	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2150-A[a]	04/20/11	Dibenzofuran	1.00E-02 J	5.62		0.54	0.70	mg/kg DW	<1	<1
LDWRI-Benthic	B2a	08/13/04	Dibenzofuran	8.30E-03	1.97	4.21E-01	15	58	mg/kg OC	<1	<1
LDWRI-Benthic	B1a	08/13/04	Dibenzofuran	6.40E-03	1.7	3.76E-01	15	58	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-17	03/28/96	Dibenzofuran	5.32E-03	2.66	2.00E-01	15	58	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-4	03/28/96	Dibenzofuran	3.70E-03	1.85	2.00E-01	15	58	mg/kg OC	<1	<1
LDWRI-Benthic	C3-2	08/27/04	Dibenzofuran	3.30E-03 J	1.31	2.52E-01	15	58	mg/kg OC	<1	<1
LDWRI-Benthic	B3a	08/26/04	Dibenzofuran	2.40E-03 J	1.36	1.76E-01	15	58	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-5	03/28/96	Dibenzofuran	2.25E-03	2.05	1.10E-01	15	58	mg/kg OC	<1	<1
LDWRI-Benthic	C3-1	08/27/04	Dibenzofuran	1.70E-03 J	0.93	1.83E-01	15	58	mg/kg OC	<1	<1
LDWRI-Benthic	C2-2	08/26/04	Dibenzofuran	1.60E-03 J	1.06	1.51E-01	15	58	mg/kg OC	<1	<1
LDWRI-Benthic	C1[a]	08/26/04	Dibenzofuran	1.30E-03 J	0.47		0.54	0.70	mg/kg DW	<1	<1
Puget Sound Sediment Quality/ NOAA Site Characterization	203	06/22/98	Dibenzothiophene	2.00E-02	1.5						
LDWRI-Benthic	B2a	08/13/04	Dibenzothiophene	6.80E-03	1.97						
LDWRI-Benthic	B1a	08/13/04	Dibenzothiophene	3.00E-03 J	1.7						
LDWRI-Benthic	B3a	08/26/04	Dibenzothiophene	1.10E-03 J	1.36						
EPA Site Inspection	DR042	08/12/98	Dibutyltin as ion	5.70E-02	9.23						
Ecology SPI	TRI-010	08/08/06	Dibutyltin as ion	4.90E-02	2.2						
EPA Site Inspection	DR070	08/12/98	Dibutyltin as ion	4.80E-02	1.75						
Ecology SPI	TRI-015T	08/08/06	Dibutyltin as ion	4.70E-02	2.16						
EPA Site Inspection	DR068	08/18/98	Dibutyltin as ion	4.40E-02 J							
Puget Sound Sediment Quality/ NOAA Site Characterization	203	06/22/98	Dibutyltin as ion	4.10E-02	1.5						
Ecology SPI	TRI-016	08/08/06	Dibutyltin as ion	4.10E-02	2.38						
EPA Site Inspection	DR046	08/12/98	Dibutyltin as ion	3.40E-02	2.26						
Ecology SPI	SPI-108	08/11/06	Dibutyltin as ion	3.40E-02	1.55						
EPA Site Inspection	DR038	09/02/98	Dibutyltin as ion	2.40E-02 J							
EPA Site Inspection	DR047	09/14/98	Dibutyltin as ion	2.40E-02 J	1.4						
EPA Site Inspection	DR033	08/11/98	Dibutyltin as ion	1.90E-02	1.72						
LDWRI-Surface Sediment Round 3	LDW-SS310	10/03/06	Dibutyltin as ion	1.80E-02	1.63						
LDWRI-Benthic	B2a	08/13/04	Dibutyltin as ion	1.40E-02	1.97						
LDWRI-Surface Sediment Round 1	LDW-SS15	01/17/05	Dibutyltin as ion	6.60E-03	1.79						
LDWRI-Surface Sediment Round 1	LDW-SS28	01/24/05	Dibutyltin as ion	3.90E-03 J	1.22						
LDWRI-Surface Sediment Round 2	LDW-SS3	03/09/05	Dibutyltin as ion	3.60E-03 J	0.723						
LDWRI-Benthic	C2-1	08/26/04	Dibutyltin as ion	2.50E-03	1.82						
LDWRI-Benthic	B3a	08/26/04	Dibutyltin as ion	2.20E-03	1.36						
LDWRI-Benthic	C2-2	08/26/04	Dibutyltin as ion	1.20E-03 J	1.06						
LDWRI-Benthic	C3-1	08/27/04	Dibutyltin as ion	8.30E-04 J	0.93						
LDWRI-Benthic	C1	08/26/04	Dibutyltin as ion	4.30E-04 J	0.47						
LDWRI-Benthic	C3-2	08/27/04	Dibutyltin as ion	4.20E-04 J	1.31						
LDWRI-Benthic	B1a	08/13/04	Dibutyltin as ion	3.90E-04 J	1.7						
Terminal 105 Site Assessment	SS1	11/23/93	Diethyl phthalate	1.00E-01 J	1.9	5.26E+00	61	110	mg/kg OC	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
Puget Sound Sediment Quality/ NOAA Site Characterization	203	06/22/98	Diethyl phthalate	2.50E-02	1.5	1.67E+00	61	110	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2146-A	03/14/11	Diethyl phthalate	1.40E-02 J	1.01	1.39E+00	61	110	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2150-A[a]	04/20/11	Diethyl phthalate	1.40E-02 J	9.22		0.2	1.2	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2232-A	04/20/11	Diethyl phthalate	1.10E-02 J	1.11	9.91E-01	61	110	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS29	03/14/05	Diethyl phthalate	7.30E-03	1.68	4.35E-01	61	110	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS14	01/17/05	Dimethyl phthalate	1.20E-01	0.79	1.52E+01	53	53	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2150-A[a]	04/20/11	Dimethyl phthalate	5.40E-02	9.22		0.071	0.16	mg/kg DW	<1	<1
EPA Site Inspection	DR047	09/14/98	Dimethyl phthalate	5.00E-02	1.4	3.57E+00	53	53	mg/kg OC	<1	<1
EPA Site Inspection	DR078	08/24/98	Dimethyl phthalate	3.00E-02	2.07	1.45E+00	53	53	mg/kg OC	<1	<1
Puget Sound Sediment Quality/ NOAA Site Characterization	203	06/22/98	Dimethyl phthalate	2.90E-02	1.5	1.93E+00	53	53	mg/kg OC	<1	<1
EPA Site Inspection	DR035	08/11/98	Dimethyl phthalate	2.00E-02	2.29	8.73E-01	53	53	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS310	10/03/06	Dimethyl phthalate	8.00E-03	1.63	4.91E-01	53	53	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS309	10/03/06	Dimethyl phthalate	7.90E-03	2.02	3.91E-01	53	53	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS16	03/08/05	Dimethyl phthalate	7.20E-03	2.11	3.41E-01	53	53	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2146-A	03/14/11	Dimethyl phthalate	6.90E-03	1.01	6.83E-01	53	53	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS308	10/03/06	Dimethyl phthalate	6.70E-03	1.86	3.60E-01	53	53	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS311[a]	10/03/06	Dimethyl phthalate	6.20E-03	4.36		0.071	0.16	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2150-A[a]	04/20/11	Dimethyl phthalate	4.80E-03	5.62		0.071	0.16	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2150-A[a]	04/20/11	Dimethyl phthalate	2.90E-03 J	4.42		0.071	0.16	mg/kg DW	<1	<1
Terminal 105 Site Assessment	SS1	11/23/93	Di-n-butyl phthalate	2.60E+00 J	1.9	1.37E+02	220	1,700	mg/kg OC	<1	<1
EPA Site Inspection	DR036	08/12/98	Di-n-butyl phthalate	2.20E-01	3.37	6.53E+00	220	1,700	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2150-A[a]	04/20/11	Di-n-butyl phthalate	6.70E-02 J	9.22		1.4	5.1	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS312[a]	10/03/06	Di-n-butyl phthalate	5.90E-02 J	4.2		1.4	5.1	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS310	10/03/06	Di-n-butyl phthalate	4.30E-02 J	1.63	2.64E+00	220	1,700	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS311[a]	10/03/06	Di-n-butyl phthalate	4.30E-02 J	4.36		1.4	5.1	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS309	10/03/06	Di-n-butyl phthalate	3.60E-02 J	2.02	1.78E+00	220	1,700	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS308	10/03/06	Di-n-butyl phthalate	3.30E-02 J	1.86	1.77E+00	220	1,700	mg/kg OC	<1	<1
EPA Site Inspection	DR035	08/11/98	Di-n-butyl phthalate	3.00E-02	2.29	1.31E+00	220	1,700	mg/kg OC	<1	<1
EPA Site Inspection	DR038	09/02/98	Di-n-butyl phthalate	3.00E-02	2.62	1.15E+00	220	1,700	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2144-A	03/14/11	Di-n-butyl phthalate	2.50E-02	0.849	2.94E+00	220	1,700	mg/kg OC	<1	<1
EPA Site Inspection	DR033	08/11/98	Di-n-butyl phthalate	2.00E-02	1.72	1.16E+00	220	1,700	mg/kg OC	<1	<1
EPA Site Inspection	DR037	08/18/98	Di-n-butyl phthalate	2.00E-02	2.02	9.90E-01	220	1,700	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-10	03/28/96	Di-n-butyl phthalate	1.31E-02	2.57	5.10E-01	220	1,700	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SSSWCSO-U	04/08/11	Di-n-butyl phthalate	1.20E-02 J	1.2	1.00E+00	220	1,700	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2233-U[a]	04/20/11	Di-n-butyl phthalate	1.10E-02 J	0.38		1.4	5.1	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2157-A	03/24/11	Di-n-butyl phthalate	9.70E-03 J	1.81	5.36E-01	220	1,700	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2150-A[a]	04/20/11	Di-n-butyl phthalate	9.10E-03 J	5.62		1.4	5.1	mg/kg DW	<1	<1
LDWRI-Benthic	B3a	08/26/04	Di-n-butyl phthalate	8.60E-03 J	1.36	6.32E-01	220	1,700	mg/kg OC	<1	<1
LDWRI-Benthic	C1[a]	08/26/04	Di-n-butyl phthalate	7.20E-03 J	0.47		1.4	5.1	mg/kg DW	<1	<1
LDWRI-Benthic	B1a	08/13/04	Di-n-butyl phthalate	5.80E-03 J	1.7	3.41E-01	220	1,700	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS24[a]	03/14/05	Di-n-octyl phthalate	5.30E-02	5.99		6.2	NV	mg/kg DW	<1	

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
Seaboard Lumber-Phase 2 Investigation	SD-9	03/28/96	Di-n-octyl phthalate	2.01E-03	1.68	1.20E-01	58	4,500	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-14	03/28/96	Di-n-octyl phthalate	1.84E-03	1.68	1.10E-01	58	4,500	mg/kg OC	<1	<1
LDW Dioxin Sampling	LDW-SS509	12/15/09	Dioxin/furan TEQ - Mammal - Half DL	7.45E-05 J	7.08						
LDWRI-Surface Sediment Round 1	LDW-SS36	01/24/05	Dioxin/furan TEQ - Mammal - Half DL	2.60E-05 J	1.89						
EPA Site Inspection	DR042	08/12/98	Dioxin/furan TEQ - Mammal - Half DL	1.60E-05 J	9.23						
LDW Dioxin Sampling	LDW-SS514	12/16/09	Dioxin/furan TEQ - Mammal - Half DL	1.40E-05 J	1.63						
LDWRI-Surface Sediment Round 1	LDW-SS28	01/24/05	Dioxin/furan TEQ - Mammal - Half DL	1.20E-05 J	1.22						
LDW Dioxin Sampling	LDW-SS507	12/16/09	Dioxin/furan TEQ - Mammal - Half DL	1.10E-05 J	1.79						
EPA Site Inspection	DR047	09/14/98	Dioxin/furan TEQ - Mammal - Half DL	9.00E-06 J	1.4						
LDW Outfall Sampling	LDW-SS2157-A	03/24/11	Dioxin/furan TEQ - Mammal - Half DL	8.75E-06 J	1.81						
EPA Site Inspection	DR046	08/12/98	Dioxin/furan TEQ - Mammal - Half DL	8.00E-06 J	2.26						
EPA Site Inspection	DR033	08/11/98	Dioxin/furan TEQ - Mammal - Half DL	6.00E-06 J	1.72						
LDW Outfall Sampling	LDW-SS2150-A	04/20/11	Dioxin/furan TEQ - Mammal - Half DL	2.22E-06 J	4.42						
LDWRI-Surface Sediment Round 1	LDW-SS14	01/17/05	Dioxin/furan TEQ - Mammal - Half DL	1.61E-06 J	0.79						
LDWRI-Benthic	C3-2	08/27/04	Endosulfan sulfate	6.30E-04 J	1.31						
LDWRI-Benthic	C3-2	08/27/04	Endrin aldehyde	2.80E-04 J	1.31						
Terminal 105 Site Assessment	SS1	11/23/93	Ethylbenzene	2.70E-03 J	1.9						
EPA Site Inspection	DR044	08/12/98	Fluoranthene	2.30E+01	2.08	1.11E+03	160	1,200	mg/kg OC	6.9	<1
EPA Site Inspection	DR038	09/02/98	Fluoranthene	7.80E+00	2.62	2.98E+02	160	1,200	mg/kg OC	1.9	<1
EPA Site Inspection	DR033	08/11/98	Fluoranthene	6.40E+00	1.72	3.72E+02	160	1,200	mg/kg OC	2.3	<1
LDWRI-Surface Sediment Round 2	LDW-SS24[a]	03/14/05	Fluoranthene	5.20E+00	5.99		1.7	2.5	mg/kg DW	3.1	2.1
LDWRI-Surface Sediment Round 3	LDW-SS312[a]	10/03/06	Fluoranthene	4.90E+00	4.2		1.7	2.5	mg/kg DW	2.9	2.0
LDW Dioxin Sampling	LDW-SS509[a]	12/15/09	Fluoranthene	4.10E+00	7.08		1.7	2.5	mg/kg DW	2.4	1.6
LDWRI-Surface Sediment Round 3	LDW-SS311[a]	10/03/06	Fluoranthene	3.90E+00	4.36		1.7	2.5	mg/kg DW	2.3	1.6
Terminal 105 Site Assessment	SS1	11/23/93	Fluoranthene	3.70E+00	1.9	1.95E+02	160	1,200	mg/kg OC	1.2	1.5
EPA Site Inspection	DR037	08/18/98	Fluoranthene	3.60E+00	2.02	1.78E+02	160	1,200	mg/kg OC	1.1	<1
EPA Site Inspection	DR040[a]	08/12/98	Fluoranthene	2.90E+00	4.69	6.18E+01	1.7	2.5	mg/kg DW	1.7	1.2
LDW Outfall Sampling	LDW-SSSWCSO-U	04/08/11	Fluoranthene	2.90E+00	1.2	2.42E+02	160	1,200	mg/kg OC	1.5	<1
EPA Site Inspection	DR047	09/14/98	Fluoranthene	2.50E+00	1.4	1.79E+02	160	1,200	mg/kg OC	1.1	<1
LDWRI-Surface Sediment Round 1	LDW-SS36	01/24/05	Fluoranthene	2.30E+00	1.89	1.22E+02	160	1,200	mg/kg OC	<1	<1
EPA Site Inspection	DR035	08/11/98	Fluoranthene	2.20E+00	2.29	9.61E+01	160	1,200	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS9	03/14/05	Fluoranthene	1.70E+00	1.79	9.50E+01	160	1,200	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2150-A[a]	04/20/11	Fluoranthene	1.60E+00	5.62		1.7	2.5	mg/kg DW	<1	<1
Terminal 105 Site Assessment	SS2	11/17/93	Fluoranthene	1.50E+00	0.98	1.53E+02	160	1,200	mg/kg OC	<1	<1
EPA Site Inspection	DR031	08/11/98	Fluoranthene	1.20E+00	2.07	5.80E+01	160	1,200	mg/kg OC	<1	<1
EPA Site Inspection	DR068	08/18/98	Fluoranthene	9.70E-01	2.36	4.11E+01	160	1,200	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS310	10/03/06	Fluoranthene	9.40E-01	1.63	5.77E+01	160	1,200	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS16	03/08/05	Fluoranthene	8.60E-01	2.11	4.08E+01	160	1,200	mg/kg OC	<1	<1
EPA Site Inspection	DR041	08/12/98	Fluoranthene	8.40E-01	2.43	3.46E+01	160	1,200	mg/kg OC	<1	<1
Ecology SPI	SPI-108	08/11/06	Fluoranthene	8.27E-01	1.55	5.34E+01	160	1,200	mg/kg OC	<1	<1
EPA Site Inspection	DR032	08/11/98	Fluoranthene	8.10E-01	1.79	4.53E+01	160	1,200	mg/kg OC	<1	<1
EPA Site Inspection	DR066	08/18/98	Fluoranthene	8.10E-01	2.25	3.60E+01	160	1,200	mg/kg OC	<1	<1
Harbor Island RI	K-05	09/27/91	Fluoranthene	8.00E-01 J	1.6	5.00E+01	160	1,200	mg/kg OC	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
LDW Outfall Sampling	LDW-SSSWCSO-A	04/08/11	Fluoranthene	7.80E-01	2.69	2.90E+01	160	1,200	mg/kg OC	<1	<1
EPA Site Inspection	DR067	08/18/98	Fluoranthene	7.60E-01	0.82	9.27E+01	160	1,200	mg/kg OC	<1	<1
Ecology SPI	TRI-015T	08/08/06	Fluoranthene	7.42E-01	2.16	3.44E+01	160	1,200	mg/kg OC	<1	<1
EPA Site Inspection	DR069	08/18/98	Fluoranthene	7.00E-01	1.92	3.65E+01	160	1,200	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS19	03/08/05	Fluoranthene	6.90E-01	2.07	3.33E+01	160	1,200	mg/kg OC	<1	<1
EPA Site Inspection	DR039	08/12/98	Fluoranthene	6.80E-01	2.43	2.80E+01	160	1,200	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2157-A	03/24/11	Fluoranthene	6.40E-01	1.81	3.54E+01	160	1,200	mg/kg OC	<1	<1
Ecology SPI	TRI-010	08/08/06	Fluoranthene	6.33E-01	2.2	2.88E+01	160	1,200	mg/kg OC	<1	<1
EPA Site Inspection	DR079	08/24/98	Fluoranthene	6.30E-01	2.18	2.89E+01	160	1,200	mg/kg OC	<1	<1
EPA Site Inspection	DR077	08/24/98	Fluoranthene	6.20E-01	1.61	3.85E+01	160	1,200	mg/kg OC	<1	<1
EPA Site Inspection	DR034	08/11/98	Fluoranthene	6.00E-01	1.84	3.26E+01	160	1,200	mg/kg OC	<1	<1
EPA Site Inspection	DR080	08/24/98	Fluoranthene	6.00E-01	1.82	3.30E+01	160	1,200	mg/kg OC	<1	<1
EPA Site Inspection	DR042[a]	08/12/98	Fluoranthene	5.70E-01	9.23	6.18E+00	1.7	2.5	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS309	10/03/06	Fluoranthene	5.70E-01	2.02	2.82E+01	160	1,200	mg/kg OC	<1	<1
Puget Sound Sediment Quality/ NOAA Site Characterization	203	06/22/98	Fluoranthene	5.53E-01	1.5	3.69E+01	160	1,200	mg/kg OC	<1	<1
EPA Site Inspection	DR078	08/24/98	Fluoranthene	5.50E-01	2.07	2.66E+01	160	1,200	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS308	10/03/06	Fluoranthene	5.40E-01	1.86	2.90E+01	160	1,200	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2150-A[a]	04/20/11	Fluoranthene	5.30E-01	4.42		1.7	2.5	mg/kg DW	<1	<1
EPA Site Inspection	DR046	08/12/98	Fluoranthene	4.80E-01	2.26	2.12E+01	160	1,200	mg/kg OC	<1	<1
Ecology SPI	TRI-016	08/08/06	Fluoranthene	4.75E-01	2.38	2.00E+01	160	1,200	mg/kg OC	<1	<1
LDWRI-Benthic	C2-1	08/26/04	Fluoranthene	4.60E-01	1.82	2.53E+01	160	1,200	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	05/01/97	Fluoranthene	4.60E-01 J	2.03	2.27E+01	160	1,200	mg/kg OC	<1	<1
EPA Site Inspection	DR070	08/12/98	Fluoranthene	4.20E-01	1.75	2.40E+01	160	1,200	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2150-A[a]	04/20/11	Fluoranthene	4.00E-01	9.22		1.7	2.5	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS12	01/17/05	Fluoranthene	3.90E-01	1.88	2.07E+01	160	1,200	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS28	01/24/05	Fluoranthene	3.80E-01	1.22	3.11E+01	160	1,200	mg/kg OC	<1	<1
LDWRI-Benthic	B2a	08/13/04	Fluoranthene	3.70E-01	1.97	1.88E+01	160	1,200	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2232-U	04/20/11	Fluoranthene	3.70E-01	1.63	2.27E+01	160	1,200	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS313	10/04/06	Fluoranthene	3.60E-01	1.95	1.85E+01	160	1,200	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-1	09/24/97	Fluoranthene	3.40E-01 J	2.59	1.31E+01	160	1,200	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	03/06/97	Fluoranthene	3.30E-01 J	2.27	1.45E+01	160	1,200	mg/kg OC	<1	<1
EPA Site Inspection	DR043[a]	08/12/98	Fluoranthene	3.10E-01	4.48	6.92E+00	1.7	2.5	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS314	10/04/06	Fluoranthene	3.00E-01	2.81	1.07E+01	160	1,200	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	04/17/97	Fluoranthene	3.00E-01 J	2.07	1.45E+01	160	1,200	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-1	09/24/97	Fluoranthene	2.95E-01 J	2.44	1.21E+01	160	1,200	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	03/12/97	Fluoranthene	2.90E-01 J	2.09	1.39E+01	160	1,200	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-2	09/24/97	Fluoranthene	2.60E-01 J	2.09	1.24E+01	160	1,200	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2233-D	04/20/11	Fluoranthene	2.60E-01	0.617	4.21E+01	160	1,200	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS3	03/09/05	Fluoranthene	2.60E-01	0.723	3.60E+01	160	1,200	mg/kg OC	<1	<1
EPA Site Inspection	DR048	08/12/98	Fluoranthene	2.50E-01	2.03	1.23E+01	160	1,200	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-1	09/24/97	Fluoranthene	2.50E-01 J	2.29	1.09E+01	160	1,200	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	04/03/97	Fluoranthene	2.50E-01 J	2.17	1.15E+01	160	1,200	mg/kg OC	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
LDWRI-Surface Sediment Round 2	LDW-SS29	03/14/05	Fluoranthene	2.40E-01	1.68	1.43E+01	160	1,200	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-2	09/24/97	Fluoranthene	2.35E-01 J	2.06	1.14E+01	160	1,200	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS15	01/17/05	Fluoranthene	2.20E-01	1.79	1.23E+01	160	1,200	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-2	09/24/97	Fluoranthene	2.10E-01 J	2.03	1.03E+01	160	1,200	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS33	01/26/05	Fluoranthene	2.00E-01	1.66	1.20E+01	160	1,200	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS10	01/17/05	Fluoranthene	1.90E-01	1.63	1.17E+01	160	1,200	mg/kg OC	<1	<1
EPA Site Inspection	DR036	08/12/98	Fluoranthene	1.80E-01	3.37	5.34E+00	160	1,200	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS34	03/14/05	Fluoranthene	1.80E-01	1.52	1.18E+01	160	1,200	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-17	03/28/96	Fluoranthene	1.78E-01 J	2.66	6.70E+00	160	1,200	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-4	03/28/96	Fluoranthene	1.78E-01 J	1.85	9.60E+00	160	1,200	mg/kg OC	<1	<1
EPA Site Inspection	DR045	09/14/98	Fluoranthene	1.70E-01	2.92	5.82E+00	160	1,200	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-3	09/24/97	Fluoranthene	1.70E-01 J	2.24	7.59E+00	160	1,200	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-3	09/24/97	Fluoranthene	1.65E-01 J	2.145	7.69E+00	160	1,200	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-3	09/24/97	Fluoranthene	1.60E-01 J	2.05	7.80E+00	160	1,200	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS14	01/17/05	Fluoranthene	1.40E-01	0.79	1.77E+01	160	1,200	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2232-A	04/20/11	Fluoranthene	1.40E-01	1.11	1.26E+01	160	1,200	mg/kg OC	<1	<1
LDWRI-Benthic	C3-2	08/27/04	Fluoranthene	1.30E-01	1.31	9.92E+00	160	1,200	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2147-D	03/14/11	Fluoranthene	1.30E-01	0.782	1.66E+01	160	1,200	mg/kg OC	<1	<1
Terminal 105 Site Assessment	SS3[a]	11/17/93	Fluoranthene	1.30E-01 J	0.13		1.7	2.5	mg/kg DW	<1	<1
LDWRI-Benthic	B1a	08/13/04	Fluoranthene	1.20E-01	1.7	7.06E+00	160	1,200	mg/kg OC	<1	<1
EPA Site Inspection	DR044	08/12/98	Fluoranthene	1.20E-01	2.22	5.41E+00	160	1,200	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2144-A	03/14/11	Fluoranthene	1.20E-01	0.849	1.41E+01	160	1,200	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS315	10/04/06	Fluoranthene	1.20E-01	1.74	6.90E+00	160	1,200	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-16	03/28/96	Fluoranthene	1.17E-01	2.99	3.90E+00	160	1,200	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2146-A	03/14/11	Fluoranthene	1.00E-01	1.01	9.90E+00	160	1,200	mg/kg OC	<1	<1
LDWRI-Benthic	C3-1	08/27/04	Fluoranthene	9.50E-02	0.93	1.02E+01	160	1,200	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-5	03/28/96	Fluoranthene	6.15E-02	2.05	3.00E+00	160	1,200	mg/kg OC	<1	<1
LDWRI-Benthic	B3a	08/26/04	Fluoranthene	5.50E-02	1.36	4.04E+00	160	1,200	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-3	03/28/96	Fluoranthene	5.33E-02	2.22	2.40E+00	160	1,200	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-18	03/28/96	Fluoranthene	4.98E-02	3.11	1.60E+00	160	1,200	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-4	09/24/97	Fluoranthene	4.70E-02 J	0.71	6.62E+00	160	1,200	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-20	03/28/96	Fluoranthene	4.52E-02	1.13	4.00E+00	160	1,200	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-4	09/24/97	Fluoranthene	4.30E-02 J	0.81	5.31E+00	160	1,200	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS23	01/18/05	Fluoranthene	4.10E-02	1.23	3.33E+00	160	1,200	mg/kg OC	<1	<1
LDWRI-Benthic	C1[a]	08/26/04	Fluoranthene	3.90E-02	0.47		1.7	2.5	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	KI-4	09/24/97	Fluoranthene	3.90E-02 J	0.91	4.29E+00	160	1,200	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-19	03/28/96	Fluoranthene	3.85E-02	2.75	1.40E+00	160	1,200	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-2	03/28/96	Fluoranthene	3.48E-02	1.74	2.00E+00	160	1,200	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-13	03/28/96	Fluoranthene	3.43E-02	2.64	1.30E+00	160	1,200	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-15	03/28/96	Fluoranthene	3.36E-02	1.46	2.30E+00	160	1,200	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-10	03/28/96	Fluoranthene	3.34E-02	2.57	1.30E+00	160	1,200	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-1	03/28/96	Fluoranthene	3.16E-02	3.4	9.30E-01	160	1,200	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-12	03/28/96	Fluoranthene	3.16E-02	2.43	1.30E+00	160	1,200	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-7	03/28/96	Fluoranthene	2.99E-02	1.76	1.70E+00	160	1,200	mg/kg OC	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
Seaboard Lumber-Phase 2 Investigation	SD-11	03/28/96	Fluoranthene	2.97E-02	2.7	1.10E+00	160	1,200	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2233-U[a]	04/20/11	Fluoranthene	2.90E-02 J	0.38		1.7	2.5	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-9	03/28/96	Fluoranthene	2.69E-02	1.68	1.60E+00	160	1,200	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-14	03/28/96	Fluoranthene	2.52E-02	1.68	1.50E+00	160	1,200	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-6	03/28/96	Fluoranthene	2.15E-02	1.79	1.20E+00	160	1,200	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-8	03/28/96	Fluoranthene	2.14E-02	1.78	1.20E+00	160	1,200	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-6	03/28/96	Fluoranthene	2.10E-02	1.79	1.17E+00	160	1,200	mg/kg OC	<1	<1
LDWRI-Benthic	C2-2	08/26/04	Fluoranthene	1.80E-02	1.06	1.70E+00	160	1,200	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2232-D	04/20/11	Fluoranthene	1.40E-02 J	0.778	1.80E+00	160	1,200	mg/kg OC	<1	<1
EPA Site Inspection	DR037	08/18/98	Fluorene	8.80E-01	2.02	4.36E+01	23	79	mg/kg OC	1.9	<1
EPA Site Inspection	DR038	09/02/98	Fluorene	5.80E-01	2.62	2.21E+01	23	79	mg/kg OC	<1	<1
EPA Site Inspection	DR033	08/11/98	Fluorene	5.70E-01	1.72	3.31E+01	23	79	mg/kg OC	1.4	<1
LDW Outfall Sampling	LDW-SSSWCSO-U	04/08/11	Fluorene	2.80E-01	1.2	2.33E+01	23	79	mg/kg OC	1.0	<1
LDWRI-Surface Sediment Round 3	LDW-SS312[a]	10/03/06	Fluorene	2.60E-01	4.2		0.54	1.0	mg/kg DW	<1	<1
EPA Site Inspection	DR040[a]	08/12/98	Fluorene	2.00E-01	4.69		0.54	1.0	mg/kg DW	<1	<1
LDW Dioxin Sampling	LDW-SS509[a]	12/15/09	Fluorene	2.00E-01	7.08		0.54	1.0	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS9	03/14/05	Fluorene	1.80E-01	1.79	1.01E+01	23	79	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS24[a]	03/14/05	Fluorene	1.70E-01	5.99		0.54	1.0	mg/kg DW	<1	<1
Terminal 105 Site Assessment	SS1	11/23/93	Fluorene	1.50E-01 J	1.9	7.89E+00	23	79	mg/kg OC	<1	<1
EPA Site Inspection	DR067	08/18/98	Fluorene	1.20E-01	0.82	1.46E+01	23	79	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS36	01/24/05	Fluorene	9.60E-02 J	1.89	5.08E+00	23	79	mg/kg OC	<1	<1
EPA Site Inspection	DR044	08/12/98	Fluorene	9.00E-02	2.08	4.33E+00	23	79	mg/kg OC	<1	<1
EPA Site Inspection	DR031	08/11/98	Fluorene	8.00E-02	2.07	3.86E+00	23	79	mg/kg OC	<1	<1
Ecology SPI	TRI-015T	08/08/06	Fluorene	7.20E-02	2.16	3.33E+00	23	79	mg/kg OC	<1	<1
Ecology SPI	TRI-010	08/08/06	Fluorene	6.50E-02	2.2	2.95E+00	23	79	mg/kg OC	<1	<1
Terminal 105 Site Assessment	SS2	11/17/93	Fluorene	6.20E-02 J	0.98	6.33E+00	23	79	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS311[a]	10/03/06	Fluorene	6.10E-02 J	4.36		0.54	1.0	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS310	10/03/06	Fluorene	6.00E-02 J	1.63	3.68E+00	23	79	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2157-A	03/24/11	Fluorene	5.50E-02	1.81	3.04E+00	23	79	mg/kg OC	<1	<1
LDWRI-Benthic	C2-1	08/26/04	Fluorene	5.40E-02	1.82	2.97E+00	23	79	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS19	03/08/05	Fluorene	5.40E-02	2.07	2.61E+00	23	79	mg/kg OC	<1	<1
EPA Site Inspection	DR035	08/11/98	Fluorene	5.00E-02	2.29	2.18E+00	23	79	mg/kg OC	<1	<1
EPA Site Inspection	DR048	08/12/98	Fluorene	5.00E-02	2.03	2.46E+00	23	79	mg/kg OC	<1	<1
EPA Site Inspection	DR068	08/18/98	Fluorene	5.00E-02	2.36	2.12E+00	23	79	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS16	03/08/05	Fluorene	4.80E-02 J	2.11	2.27E+00	23	79	mg/kg OC	<1	<1
Harbor Island RI	K-05	09/27/91	Fluorene	4.60E-02 J	1.6	2.88E+00	23	79	mg/kg OC	<1	<1
Ecology SPI	TRI-016	08/08/06	Fluorene	4.20E-02	2.38	1.76E+00	23	79	mg/kg OC	<1	<1
EPA Site Inspection	DR034	08/11/98	Fluorene	4.00E-02	1.84	2.17E+00	23	79	mg/kg OC	<1	<1
EPA Site Inspection	DR041	08/12/98	Fluorene	4.00E-02	2.43	1.65E+00	23	79	mg/kg OC	<1	<1
EPA Site Inspection	DR047	09/14/98	Fluorene	4.00E-02	1.4	2.86E+00	23	79	mg/kg OC	<1	<1
EPA Site Inspection	DR066	08/18/98	Fluorene	4.00E-02	2.25	1.78E+00	23	79	mg/kg OC	<1	<1
Puget Sound Sediment Quality/ NOAA Site Characterization	203	06/22/98	Fluorene	3.70E-02	1.5	2.47E+00	23	79	mg/kg OC	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
LDWRI-Surface Sediment Round 3	LDW-SS309	10/03/06	Fluorene	3.60E-02 J	2.02	1.78E+00	23	79	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SSSWCSO-A	04/08/11	Fluorene	3.40E-02	2.69	1.26E+00	23	79	mg/kg OC	<1	<1
EPA Site Inspection	DR032	08/11/98	Fluorene	3.00E-02	1.79	1.68E+00	23	79	mg/kg OC	<1	<1
EPA Site Inspection	DR039	08/12/98	Fluorene	3.00E-02	2.43	1.23E+00	23	79	mg/kg OC	<1	<1
EPA Site Inspection	DR069	08/18/98	Fluorene	3.00E-02	1.92	1.56E+00	23	79	mg/kg OC	<1	<1
EPA Site Inspection	DR077	08/24/98	Fluorene	3.00E-02	1.61	1.86E+00	23	79	mg/kg OC	<1	<1
EPA Site Inspection	DR078	08/24/98	Fluorene	3.00E-02	2.07	1.45E+00	23	79	mg/kg OC	<1	<1
Ecology SPI	SPI-108	08/11/06	Fluorene	2.40E-02	1.55	1.55E+00	23	79	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS3	03/09/05	Fluorene	2.20E-02	0.723	3.04E+00	23	79	mg/kg OC	<1	<1
EPA Site Inspection	DR044	08/12/98	Fluorene	2.00E-02	2.68	7.46E-01	23	79	mg/kg OC	<1	<1
EPA Site Inspection	DR079	08/24/98	Fluorene	2.00E-02	2.18	9.17E-01	23	79	mg/kg OC	<1	<1
EPA Site Inspection	DR080	08/24/98	Fluorene	2.00E-02	1.82	1.10E+00	23	79	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2150-A[a]	04/20/11	Fluorene	1.80E-02 J	9.22		0.54	1.0	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2232-A	04/20/11	Fluorene	1.80E-02	1.11	1.62E+00	23	79	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-17	03/28/96	Fluorene	1.62E-02	2.66	6.10E-01	23	79	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2150-A[a]	04/20/11	Fluorene	1.60E-02 J	5.62		0.54	1.0	mg/kg DW	<1	<1
LDWRI-Benthic	B2a	08/13/04	Fluorene	1.40E-02	1.97	7.11E-01	23	79	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2233-D	04/20/11	Fluorene	1.20E-02 J	0.617	1.94E+00	23	79	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2150-A[a]	04/20/11	Fluorene	1.10E-02 J	4.42		0.54	1.0	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-4	03/28/96	Fluorene	7.40E-03	1.85	4.00E-01	23	79	mg/kg OC	<1	<1
LDWRI-Benthic	B1a	08/13/04	Fluorene	7.10E-03	1.7	4.18E-01	23	79	mg/kg OC	<1	<1
LDWRI-Benthic	C3-2	08/27/04	Fluorene	6.20E-03	1.31	4.73E-01	23	79	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-5	03/28/96	Fluorene	3.28E-03	2.05	1.60E-01	23	79	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-3	03/28/96	Fluorene	2.88E-03	2.22	1.30E-01	23	79	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-18	03/28/96	Fluorene	2.79E-03	3.11	8.97E-02	23	79	mg/kg OC	<1	<1
LDWRI-Benthic	B3a	08/26/04	Fluorene	2.70E-03 J	1.36	1.99E-01	23	79	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-7	03/28/96	Fluorene	2.64E-03	1.76	1.50E-01	23	79	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-8	03/28/96	Fluorene	2.31E-03	1.78	1.30E-01	23	79	mg/kg OC	<1	<1
LDWRI-Benthic	C1[a]	08/26/04	Fluorene	2.30E-03 J	0.47		0.54	1.0	mg/kg DW	<1	<1
LDWRI-Benthic	C3-1	08/27/04	Fluorene	2.30E-03 J	0.93	2.47E-01	23	79	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-20	03/28/96	Fluorene	2.26E-03	1.13	2.00E-01	23	79	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-2	03/28/96	Fluorene	2.08E-03	1.74	1.20E-01	23	79	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-9	03/28/96	Fluorene	2.01E-03	1.68	1.20E-01	23	79	mg/kg OC	<1	<1
LDWRI-Benthic	C2-2	08/26/04	Fluorene	1.40E-03 J	1.06	1.32E-01	23	79	mg/kg OC	<1	<1
LDWRI-Benthic	C2-2	08/26/04	gamma-Chlordane	1.50E-03 J	1.06						
LDWRI-Benthic	C2-1	08/26/04	gamma-Chlordane	1.40E-03 J	1.82						
LDWRI-Benthic	C3-1	08/27/04	gamma-Chlordane	9.90E-04 J	0.93						
LDWRI-Benthic	C1	08/26/04	gamma-Chlordane	2.00E-04 J	0.47						
Terminal 105 Site Assessment	SS2	11/17/93	Heavy oil-range hydrocarbons	5.70E+02	0.98						
Terminal 105 Site Assessment	SS1	11/23/93	Heavy oil-range hydrocarbons	3.20E+02	1.9						
Terminal 105 Site Assessment	SS3	11/17/93	Heavy oil-range hydrocarbons	1.20E+02	0.13						
EPA Site Inspection	DR047	09/14/98	Heptachlor epoxide	1.00E-03	1.4						
KC CSO Water Quality Assessment	WQAKELL	05/01/97	Hexachlorobenzene	2.70E-03 J	2.03	1.33E-01	0.38	2.3	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	04/03/97	Hexachlorobenzene	1.90E-03 J	2.17	8.76E-02	0.38	2.3	mg/kg OC	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
Puget Sound Sediment Quality/ NOAA Site Characterization	203	06/22/98	Hexachlorobenzene	8.30E-04	1.5	5.53E-02	0.38	2.3	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS312[a]	10/03/06	Indeno(1,2,3-cd)pyrene	1.60E+00	4.2		0.6	0.69	mg/kg DW	2.7	2.3
LDWRI-Surface Sediment Round 2	LDW-SS24[a]	03/14/05	Indeno(1,2,3-cd)pyrene	1.20E+00	5.99		0.6	0.69	mg/kg DW	2.0	1.7
LDW Dioxin Sampling	LDW-SS509[a]	12/15/09	Indeno(1,2,3-cd)pyrene	1.20E+00	7.08		0.6	0.69	mg/kg DW	2.0	1.7
EPA Site Inspection	DR033	08/11/98	Indeno(1,2,3-cd)pyrene	7.70E-01	1.72	4.48E+01	34	88	mg/kg OC	1.3	<1
EPA Site Inspection	DR038	09/02/98	Indeno(1,2,3-cd)pyrene	5.60E-01	2.62	2.14E+01	34	88	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS9	03/14/05	Indeno(1,2,3-cd)pyrene	5.30E-01	1.79	2.96E+01	34	88	mg/kg OC	<1	<1
EPA Site Inspection	DR044	08/12/98	Indeno(1,2,3-cd)pyrene	5.20E-01	2.08	2.50E+01	34	88	mg/kg OC	<1	<1
EPA Site Inspection	DR040[a]	08/12/98	Indeno(1,2,3-cd)pyrene	4.80E-01	4.69	1.02E+01	0.6	0.69	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS311[a]	10/03/06	Indeno(1,2,3-cd)pyrene	4.20E-01	4.36		0.6	0.69	mg/kg DW	<1	<1
EPA Site Inspection	DR035	08/11/98	Indeno(1,2,3-cd)pyrene	4.10E-01	2.29	1.79E+01	34	88	mg/kg OC	<1	<1
EPA Site Inspection	DR031	08/11/98	Indeno(1,2,3-cd)pyrene	3.40E-01	2.07	1.64E+01	34	88	mg/kg OC	<1	<1
EPA Site Inspection	DR047	09/14/98	Indeno(1,2,3-cd)pyrene	3.30E-01	1.4	2.36E+01	34	88	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2150-A[a]	04/20/11	Indeno(1,2,3-cd)pyrene	3.10E-01	5.62		0.6	0.69	mg/kg DW	<1	<1
EPA Site Inspection	DR034	08/11/98	Indeno(1,2,3-cd)pyrene	2.70E-01	1.84	1.47E+01	34	88	mg/kg OC	<1	<1
EPA Site Inspection	DR037	08/18/98	Indeno(1,2,3-cd)pyrene	2.70E-01	2.02	1.34E+01	34	88	mg/kg OC	<1	<1
EPA Site Inspection	DR068	08/18/98	Indeno(1,2,3-cd)pyrene	2.70E-01	2.36	1.14E+01	34	88	mg/kg OC	<1	<1
Ecology SPI	TRI-015T	08/08/06	Indeno(1,2,3-cd)pyrene	2.48E-01	2.16	1.15E+01	34	88	mg/kg OC	<1	<1
Ecology SPI	TRI-010	08/08/06	Indeno(1,2,3-cd)pyrene	2.46E-01	2.2	1.12E+01	34	88	mg/kg OC	<1	<1
Puget Sound Sediment Quality/ NOAA Site Characterization	203	06/22/98	Indeno(1,2,3-cd)pyrene	2.42E-01	1.5	1.61E+01	34	88	mg/kg OC	<1	<1
EPA Site Inspection	DR066	08/18/98	Indeno(1,2,3-cd)pyrene	2.40E-01	2.25	1.07E+01	34	88	mg/kg OC	<1	<1
EPA Site Inspection	DR041	08/12/98	Indeno(1,2,3-cd)pyrene	2.30E-01	2.43	9.47E+00	34	88	mg/kg OC	<1	<1
Ecology SPI	SPI-108	08/11/06	Indeno(1,2,3-cd)pyrene	2.26E-01	1.55	1.46E+01	34	88	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS10	01/17/05	Indeno(1,2,3-cd)pyrene	2.20E-01	1.63	1.35E+01	34	88	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2150-A[a]	04/20/11	Indeno(1,2,3-cd)pyrene	2.20E-01	9.22		0.6	0.69	mg/kg DW	<1	<1
EPA Site Inspection	DR048	08/12/98	Indeno(1,2,3-cd)pyrene	2.10E-01	2.03	1.03E+01	34	88	mg/kg OC	<1	<1
EPA Site Inspection	DR042[a]	08/12/98	Indeno(1,2,3-cd)pyrene	2.00E-01	9.23	2.17E+00	0.6	0.69	mg/kg DW	<1	<1
EPA Site Inspection	DR077	08/24/98	Indeno(1,2,3-cd)pyrene	2.00E-01	1.61	1.24E+01	34	88	mg/kg OC	<1	<1
EPA Site Inspection	DR069	08/18/98	Indeno(1,2,3-cd)pyrene	1.90E-01	1.92	9.90E+00	34	88	mg/kg OC	<1	<1
EPA Site Inspection	DR070	08/12/98	Indeno(1,2,3-cd)pyrene	1.90E-01	1.75	1.09E+01	34	88	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS310	10/03/06	Indeno(1,2,3-cd)pyrene	1.90E-01	1.63	1.17E+01	34	88	mg/kg OC	<1	<1
EPA Site Inspection	DR032	08/11/98	Indeno(1,2,3-cd)pyrene	1.80E-01	1.79	1.01E+01	34	88	mg/kg OC	<1	<1
EPA Site Inspection	DR039	08/12/98	Indeno(1,2,3-cd)pyrene	1.80E-01	2.43	7.41E+00	34	88	mg/kg OC	<1	<1
Ecology SPI	TRI-016	08/08/06	Indeno(1,2,3-cd)pyrene	1.74E-01	2.38	7.31E+00	34	88	mg/kg OC	<1	<1
EPA Site Inspection	DR079	08/24/98	Indeno(1,2,3-cd)pyrene	1.60E-01	2.18	7.34E+00	34	88	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS308	10/03/06	Indeno(1,2,3-cd)pyrene	1.60E-01	1.86	8.60E+00	34	88	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS309	10/03/06	Indeno(1,2,3-cd)pyrene	1.60E-01	2.02	7.92E+00	34	88	mg/kg OC	<1	<1
LDWRI-Benthic	B2a	08/13/04	Indeno(1,2,3-cd)pyrene	1.50E-01	1.97	7.61E+00	34	88	mg/kg OC	<1	<1
EPA Site Inspection	DR078	08/24/98	Indeno(1,2,3-cd)pyrene	1.50E-01	2.07	7.25E+00	34	88	mg/kg OC	<1	<1
EPA Site Inspection	DR046	08/12/98	Indeno(1,2,3-cd)pyrene	1.40E-01	2.26	6.19E+00	34	88	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2157-A	03/24/11	Indeno(1,2,3-cd)pyrene	1.40E-01	1.81	7.73E+00	34	88	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS16	03/08/05	Indeno(1,2,3-cd)pyrene	1.30E-01	2.11	6.16E+00	34	88	mg/kg OC	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
LDW Outfall Sampling	LDW-SSSWCSO-U	04/08/11	Indeno(1,2,3-cd)pyrene	1.30E-01	1.2	1.08E+01	34	88	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	03/06/97	Indeno(1,2,3-cd)pyrene	1.30E-01 J	2.27	5.73E+00	34	88	mg/kg OC	<1	<1
EPA Site Inspection	DR067	08/18/98	Indeno(1,2,3-cd)pyrene	1.20E-01	0.82	1.46E+01	34	88	mg/kg OC	<1	<1
EPA Site Inspection	DR080	08/24/98	Indeno(1,2,3-cd)pyrene	1.20E-01	1.82	6.59E+00	34	88	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2144-A	03/14/11	Indeno(1,2,3-cd)pyrene	1.20E-01	0.849	1.41E+01	34	88	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SSSWCSO-A	04/08/11	Indeno(1,2,3-cd)pyrene	1.20E-01	2.69	4.46E+00	34	88	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	03/12/97	Indeno(1,2,3-cd)pyrene	1.20E-01 J	2.03	5.91E+00	34	88	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	04/03/97	Indeno(1,2,3-cd)pyrene	1.20E-01 J	2.07	5.80E+00	34	88	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	04/17/97	Indeno(1,2,3-cd)pyrene	1.20E-01 J	2.17	5.53E+00	34	88	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	05/01/97	Indeno(1,2,3-cd)pyrene	1.20E-01 J	2.09	5.74E+00	34	88	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS19	03/08/05	Indeno(1,2,3-cd)pyrene	1.10E-01	2.07	5.31E+00	34	88	mg/kg OC	<1	<1
Terminal 105 Site Assessment	SS2	11/17/93	Indeno(1,2,3-cd)pyrene	1.10E-01	0.98	1.12E+01	34	88	mg/kg OC	<1	<1
EPA Site Inspection	DR043[a]	08/12/98	Indeno(1,2,3-cd)pyrene	1.00E-01	4.48	2.23E+00	0.6	0.69	mg/kg DW	<1	<1
LDWRI-Benthic	C2-1	08/26/04	Indeno(1,2,3-cd)pyrene	9.90E-02	1.82	5.44E+00	34	88	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2147-D	03/14/11	Indeno(1,2,3-cd)pyrene	9.80E-02	0.782	1.25E+01	34	88	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS3	03/09/05	Indeno(1,2,3-cd)pyrene	9.60E-02	0.723	1.33E+01	34	88	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-2	09/24/97	Indeno(1,2,3-cd)pyrene	8.70E-02 J	2.09	4.16E+00	34	88	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2232-U	04/20/11	Indeno(1,2,3-cd)pyrene	8.60E-02	1.63	5.28E+00	34	88	mg/kg OC	<1	<1
EPA Site Inspection	DR045	09/14/98	Indeno(1,2,3-cd)pyrene	8.00E-02	2.92	2.74E+00	34	88	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-1	09/24/97	Indeno(1,2,3-cd)pyrene	7.90E-02 J	2.59	3.05E+00	34	88	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2233-D	04/20/11	Indeno(1,2,3-cd)pyrene	7.80E-02	0.617	1.26E+01	34	88	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS36	01/24/05	Indeno(1,2,3-cd)pyrene	7.70E-02	1.89	4.07E+00	34	88	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-2	09/24/97	Indeno(1,2,3-cd)pyrene	7.50E-02 J	2.06	3.64E+00	34	88	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-1	09/24/97	Indeno(1,2,3-cd)pyrene	7.30E-02 J	2.44	2.99E+00	34	88	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS314	10/04/06	Indeno(1,2,3-cd)pyrene	7.10E-02	2.81	2.53E+00	34	88	mg/kg OC	<1	<1
EPA Site Inspection	DR036	08/12/98	Indeno(1,2,3-cd)pyrene	7.00E-02	3.37	2.08E+00	34	88	mg/kg OC	<1	<1
EPA Site Inspection	DR044	08/12/98	Indeno(1,2,3-cd)pyrene	7.00E-02	2.22	3.15E+00	34	88	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-3	09/24/97	Indeno(1,2,3-cd)pyrene	6.80E-02 J	2.24	3.04E+00	34	88	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-1	09/24/97	Indeno(1,2,3-cd)pyrene	6.70E-02 J	2.29	2.93E+00	34	88	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2146-A	03/14/11	Indeno(1,2,3-cd)pyrene	6.50E-02	1.01	6.44E+00	34	88	mg/kg OC	<1	<1
LDWRI-Benthic	C3-2	08/27/04	Indeno(1,2,3-cd)pyrene	6.40E-02	1.31	4.89E+00	34	88	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-2	09/24/97	Indeno(1,2,3-cd)pyrene	6.30E-02 J	2.03	3.10E+00	34	88	mg/kg OC	<1	<1
LDWRI-Benthic	C3-1	08/27/04	Indeno(1,2,3-cd)pyrene	6.10E-02	0.93	6.56E+00	34	88	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2150-A[a]	04/20/11	Indeno(1,2,3-cd)pyrene	5.60E-02	4.42		0.6	0.69	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS313	10/04/06	Indeno(1,2,3-cd)pyrene	5.40E-02 J	1.95	2.77E+00	34	88	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS12	01/17/05	Indeno(1,2,3-cd)pyrene	5.30E-02	1.88	2.82E+00	34	88	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS29	03/14/05	Indeno(1,2,3-cd)pyrene	4.90E-02	1.68	2.92E+00	34	88	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-3	09/24/97	Indeno(1,2,3-cd)pyrene	4.83E-02 J	2.145	2.25E+00	34	88	mg/kg OC	<1	<1
Terminal 105 Site Assessment	SS3[a]	11/17/93	Indeno(1,2,3-cd)pyrene	4.60E-02 J	0.13		0.6	0.69	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS14	01/17/05	Indeno(1,2,3-cd)pyrene	4.20E-02	0.79	5.32E+00	34	88	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-17	03/28/96	Indeno(1,2,3-cd)pyrene	3.72E-02	2.66	1.40E+00	34	88	mg/kg OC	<1	<1
LDWRI-Benthic	B1a	08/13/04	Indeno(1,2,3-cd)pyrene	3.70E-02	1.7	2.18E+00	34	88	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS315	10/04/06	Indeno(1,2,3-cd)pyrene	3.40E-02 J	1.74	1.95E+00	34	88	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS15	01/17/05	Indeno(1,2,3-cd)pyrene	3.10E-02	1.79	1.73E+00	34	88	mg/kg OC	<1	<1
EPA Site Inspection	DR044	08/12/98	Indeno(1,2,3-cd)pyrene	3.00E-02	2.68	1.12E+00	34	88	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-3	03/28/96	Indeno(1,2,3-cd)pyrene	2.44E-02	2.22	1.10E+00	34	88	mg/kg OC	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
LDW Outfall Sampling	LDW-SS2232-A	04/20/11	Indeno(1,2,3-cd)pyrene	2.30E-02	1.11	2.07E+00	34	88	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS23	01/18/05	Indeno(1,2,3-cd)pyrene	2.10E-02	1.23	1.71E+00	34	88	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS33	01/26/05	Indeno(1,2,3-cd)pyrene	1.80E-02 J	1.66	1.08E+00	34	88	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-10	03/28/96	Indeno(1,2,3-cd)pyrene	1.72E-02	2.57	6.70E-01	34	88	mg/kg OC	<1	<1
LDWRI-Benthic	C2-2	08/26/04	Indeno(1,2,3-cd)pyrene	1.60E-02	1.06	1.51E+00	34	88	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2233-U[a]	04/20/11	Indeno(1,2,3-cd)pyrene	1.60E-02 J	0.38		0.6	0.69	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS28	01/24/05	Indeno(1,2,3-cd)pyrene	1.60E-02	1.22	1.31E+00	34	88	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-5	03/28/96	Indeno(1,2,3-cd)pyrene	1.60E-02	2.05	7.80E-01	34	88	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-4	03/28/96	Indeno(1,2,3-cd)pyrene	1.57E-02	1.85	8.50E-01	34	88	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-16	03/28/96	Indeno(1,2,3-cd)pyrene	1.50E-02	2.99	5.00E-01	34	88	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-11	03/28/96	Indeno(1,2,3-cd)pyrene	1.46E-02	2.7	5.40E-01	34	88	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS34	03/14/05	Indeno(1,2,3-cd)pyrene	1.40E-02	1.52	9.21E-01	34	88	mg/kg OC	<1	<1
LDWRI-Benthic	B3a	08/26/04	Indeno(1,2,3-cd)pyrene	1.30E-02	1.36	9.56E-01	34	88	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-15	03/28/96	Indeno(1,2,3-cd)pyrene	1.23E-02	1.46	8.40E-01	34	88	mg/kg OC	<1	<1
LDWRI-Benthic	C1[a]	08/26/04	Indeno(1,2,3-cd)pyrene	1.20E-02	0.47		0.6	0.69	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-1	03/28/96	Indeno(1,2,3-cd)pyrene	1.16E-02	3.4	3.40E-01	34	88	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-13	03/28/96	Indeno(1,2,3-cd)pyrene	1.14E-02	2.64	4.30E-01	34	88	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-7	03/28/96	Indeno(1,2,3-cd)pyrene	1.13E-02	1.76	6.40E-01	34	88	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-18	03/28/96	Indeno(1,2,3-cd)pyrene	1.12E-02	3.11	3.60E-01	34	88	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-12	03/28/96	Indeno(1,2,3-cd)pyrene	1.12E-02	2.43	4.60E-01	34	88	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-9	03/28/96	Indeno(1,2,3-cd)pyrene	1.01E-02	1.68	6.00E-01	34	88	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-2	03/28/96	Indeno(1,2,3-cd)pyrene	9.39E-03	1.74	5.40E-01	34	88	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-20	03/28/96	Indeno(1,2,3-cd)pyrene	9.37E-03	1.13	8.29E-01	34	88	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-8	03/28/96	Indeno(1,2,3-cd)pyrene	8.90E-03	1.78	5.00E-01	34	88	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-6	03/28/96	Indeno(1,2,3-cd)pyrene	8.60E-03	1.79	4.80E-01	34	88	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-6	03/28/96	Indeno(1,2,3-cd)pyrene	8.59E-03	1.79	4.80E-01	34	88	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-14	03/28/96	Indeno(1,2,3-cd)pyrene	8.23E-03	1.68	4.90E-01	34	88	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-19	03/28/96	Indeno(1,2,3-cd)pyrene	7.70E-03	2.75	2.80E-01	34	88	mg/kg OC	<1	<1
EPA Site Inspection	DR042	08/12/98	Iron	4.57E+04 J	9.23						
EPA Site Inspection	DR038	09/02/98	Iron	4.50E+04 J							
EPA Site Inspection	DR068	08/18/98	Iron	4.33E+04 J							
KC CSO Water Quality Assessment	WQAKELL	03/12/97	Iron	4.20E+04 J	2.09						
KC CSO Water Quality Assessment	WQAKELL	03/06/97	Iron	4.00E+04 J	2.27						
KC CSO Water Quality Assessment	WQAKELL	04/08/97	Iron	3.60E+04 J	2.04						
EPA Site Inspection	DR078	08/24/98	Iron	3.58E+04	2.07						
EPA Site Inspection	DR037	08/18/98	Iron	3.56E+04 J							
KC CSO Water Quality Assessment	WQAKELL	04/03/97	Iron	3.50E+04 J	2.05						
KC CSO Water Quality Assessment	WQAKELL	05/01/97	Iron	3.50E+04 J	2.03						
KC CSO Water Quality Assessment	WQAKELL	05/08/97	Iron	3.50E+04 J	2.17						
EPA Site Inspection	DR039	08/12/98	Iron	3.48E+04 J							
EPA Site Inspection	DR068	08/18/98	Iron	3.44E+04 J							
EPA Site Inspection	DR041	08/12/98	Iron	3.43E+04 J	2.43						
EPA Site Inspection	DR079	08/24/98	Iron	3.40E+04	2.18						
KC CSO Water Quality Assessment	WQAKELL	03/27/97	Iron	3.40E+04 J	2.19						
KC CSO Water Quality Assessment	WQAKELL	04/17/97	Iron	3.30E+04 J	2.06						
KC CSO Water Quality Assessment	WQAKELL	04/24/97	Iron	3.30E+04 J	2.07						
EPA Site Inspection	DR040	08/12/98	Iron	3.24E+04 J	4.69						

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
EPA Site Inspection	DR069	08/18/98	Iron	3.22E+04 J							
EPA Site Inspection	DR080	08/24/98	Iron	3.14E+04	1.82						
EPA Site Inspection	DR044	08/12/98	Iron	3.10E+04	2.08						
EPA Site Inspection	DR066	08/18/98	Iron	3.09E+04 J							
EPA Site Inspection	DR077	08/24/98	Iron	3.07E+04	1.61						
EPA Site Inspection	DR048	08/12/98	Iron	3.04E+04 J	2.03						
EPA Site Inspection	DR044	08/12/98	Iron	2.99E+04	2.68						
EPA Site Inspection	DR035	08/11/98	Iron	2.98E+04 J							
EPA Site Inspection	DR034	08/11/98	Iron	2.73E+04 J							
Puget Sound Sediment Quality/ NOAA Site Characterization	203	06/22/98	Iron	2.39E+04	1.5						
EPA Site Inspection	DR032	08/11/98	Iron	2.38E+04 J							
EPA Site Inspection	DR031	08/11/98	Iron	2.34E+04 J	2.07						
EPA Site Inspection	DR070	08/12/98	Iron	2.34E+04 J	1.75						
EPA Site Inspection	DR033	08/11/98	Iron	2.23E+04 J							
EPA Site Inspection	DR047	09/14/98	Iron	2.15E+04	1.4						
EPA Site Inspection	DR044	08/12/98	Iron	2.07E+04 J	2.22						
EPA Site Inspection	DR046	08/12/98	Iron	2.07E+04 J	2.26						
EPA Site Inspection	DR043	08/12/98	Iron	2.04E+04 J	4.48						
EPA Site Inspection	DR045	09/14/98	Iron	1.94E+04	2.92						
EPA Site Inspection	DR036	08/12/98	Iron	1.81E+04 J							
EPA Site Inspection	DR067	08/18/98	Iron	1.54E+04 J							
EPA Site Inspection	DR076	08/24/98	Iron	1.34E+04	0.1						
LDWRI-Surface Sediment Round 1	LDW-SS23	01/18/05	Isophorone	2.60E-02	1.23						
LDWRI-Surface Sediment Round 2	LDW-SS24	03/14/05	Lead	4.00E+02	5.99		450	530	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-16	03/28/96	Lead	1.82E+02	2.99		450	530	mg/kg DW	<1	<1
EPA Site Inspection	DR035	08/11/98	Lead	1.60E+02	2.29		450	530	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS312	10/03/06	Lead	1.38E+02	4.2		450	530	mg/kg DW	<1	<1
LDWRI-Benthic	C3-1	08/27/04	Lead	1.34E+02 J	0.93		450	530	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS29	03/14/05	Lead	1.31E+02	1.68		450	530	mg/kg DW	<1	<1
Terminal 105 Site Assessment	SS1	11/23/93	Lead	1.20E+02 T	1.9		450	530	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-17	03/28/96	Lead	1.17E+02	2.66		450	530	mg/kg DW	<1	<1
EPA Site Inspection	DR044	08/12/98	Lead	1.10E+02	2.08		450	530	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS311	10/03/06	Lead	1.01E+02	4.36		450	530	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2149-A	04/20/11	Lead	9.20E+01	9.22		450	530	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS28	01/24/05	Lead	8.70E+01	1.22		450	530	mg/kg DW	<1	<1
EPA Site Inspection	DR036	08/12/98	Lead	8.47E+01 J			450	530	mg/kg DW	<1	<1
EPA Site Inspection	DR042	08/12/98	Lead	8.19E+01 J	9.23		450	530	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS16	03/08/05	Lead	8.10E+01	2.11		450	530	mg/kg DW	<1	<1
EPA Site Inspection	DR040	08/12/98	Lead	7.85E+01 J	4.69		450	530	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS19	03/08/05	Lead	7.60E+01	2.07		450	530	mg/kg DW	<1	<1
EPA Site Inspection	DR044	08/12/98	Lead	7.54E+01	2.68		450	530	mg/kg DW	<1	<1
Ecology SPI	TRI-016	08/08/06	Lead	7.46E+01	2.38		450	530	mg/kg DW	<1	<1
EPA Site Inspection	DR034	08/11/98	Lead	7.36E+01	1.84		450	530	mg/kg DW	<1	<1
Ecology SPI	TRI-015T	08/08/06	Lead	7.18E+01	2.16		450	530	mg/kg DW	<1	<1
EPA Site Inspection	DR038	09/02/98	Lead	7.12E+01	2.62		450	530	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS9	03/14/05	Lead	7.10E+01	1.79		450	530	mg/kg DW	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
EPA Site Inspection	DR033	08/11/98	Lead	7.08E+01	1.72		450	530	mg/kg DW	<1	<1
EPA Site Inspection	DR031	08/11/98	Lead	6.83E+01	2.07		450	530	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS15	01/17/05	Lead	6.70E+01	1.79		450	530	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS309	10/03/06	Lead	6.70E+01	2.02		450	530	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS310	10/03/06	Lead	6.70E+01	1.63		450	530	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-10	03/28/96	Lead	6.70E+01	2.57		450	530	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-3	03/28/96	Lead	6.70E+01	2.22		450	530	mg/kg DW	<1	<1
Ecology SPI	TRI-010	08/08/06	Lead	6.67E+01	2.2		450	530	mg/kg DW	<1	<1
EPA Site Inspection	DR039	08/12/98	Lead	6.56E+01 J			450	530	mg/kg DW	<1	<1
EPA Site Inspection	DR077	08/24/98	Lead	6.52E+01	1.61		450	530	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS10	01/17/05	Lead	6.50E+01	1.63		450	530	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-11	03/28/96	Lead	6.50E+01	2.7		450	530	mg/kg DW	<1	<1
EPA Site Inspection	DR047	09/14/98	Lead	6.44E+01 J	1.4		450	530	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2150-A	04/20/11	Lead	6.30E+01	4.42		450	530	mg/kg DW	<1	<1
EPA Site Inspection	DR070	08/12/98	Lead	6.10E+01 J	1.75		450	530	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2148-A	04/20/11	Lead	6.10E+01	5.62		450	530	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS308	10/03/06	Lead	6.10E+01	1.86		450	530	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS36	01/24/05	Lead	6.10E+01	1.89		450	530	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-1	03/28/96	Lead	6.00E+01	3.4		450	530	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS12	01/17/05	Lead	5.90E+01	1.88		450	530	mg/kg DW	<1	<1
EPA Site Inspection	DR041	08/12/98	Lead	5.61E+01 J	2.43		450	530	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-12	03/28/96	Lead	5.60E+01	2.43		450	530	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	KI-2	09/24/97	Lead	5.54E+01	2.09		450	530	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-13	03/28/96	Lead	5.40E+01	2.64		450	530	mg/kg DW	<1	<1
Ecology SPI	SPI-108	08/11/06	Lead	5.35E+01	1.55		450	530	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2233-D	04/20/11	Lead	5.20E+01	0.617		450	530	mg/kg DW	<1	<1
LDWRI-Benthic	C3-2	08/27/04	Lead	5.12E+01 J	1.31		450	530	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS33	01/26/05	Lead	5.10E+01	1.66		450	530	mg/kg DW	<1	<1
EPA Site Inspection	DR043	08/12/98	Lead	5.00E+01 J	4.48		450	530	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-19	03/28/96	Lead	4.80E+01	2.75		450	530	mg/kg DW	<1	<1
EPA Site Inspection	DR032	08/11/98	Lead	4.75E+01	1.79		450	530	mg/kg DW	<1	<1
EPA Site Inspection	DR079	08/24/98	Lead	4.73E+01	2.18		450	530	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-18	03/28/96	Lead	4.70E+01	3.11		450	530	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	KI-2	09/24/97	Lead	4.54E+01	2.06		450	530	mg/kg DW	<1	<1
EPA Site Inspection	DR078	08/24/98	Lead	4.49E+01	2.07		450	530	mg/kg DW	<1	<1
EPA Site Inspection	DR068	08/18/98	Lead	4.48E+01	2.36		450	530	mg/kg DW	<1	<1
EPA Site Inspection	DR045	09/14/98	Lead	4.45E+01 J	2.92		450	530	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2233-U	04/20/11	Lead	4.40E+01	0.38		450	530	mg/kg DW	<1	<1
EPA Site Inspection	DR069	08/18/98	Lead	4.38E+01 J			450	530	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-5	03/28/96	Lead	4.30E+01	2.05		450	530	mg/kg DW	<1	<1
Puget Sound Sediment Quality/ NOAA Site Characterization	203	06/22/98	Lead	4.15E+01	1.5		450	530	mg/kg DW	<1	<1
EPA Site Inspection	DR080	08/24/98	Lead	4.13E+01	1.82		450	530	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-20	03/28/96	Lead	4.10E+01	1.13		450	530	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-4	03/28/96	Lead	4.10E+01	1.85		450	530	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	KI-1	09/24/97	Lead	4.08E+01	2.59		450	530	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS306	10/03/06	Lead	4.00E+01	0.284		450	530	mg/kg DW	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
KC CSO Water Quality Assessment	KI-1	09/24/97	Lead	3.97E+01	2.44		450	530	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-14	03/28/96	Lead	3.90E+01	1.68		450	530	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	KI-1	09/24/97	Lead	3.86E+01	2.29		450	530	mg/kg DW	<1	<1
EPA Site Inspection	DR066	08/18/98	Lead	3.84E+01	2.25		450	530	mg/kg DW	<1	<1
EPA Site Inspection	DR048	08/12/98	Lead	3.83E+01 J	2.03		450	530	mg/kg DW	<1	<1
LDWRI-Benthic	B1a	08/13/04	Lead	3.82E+01 J	1.7		450	530	mg/kg DW	<1	<1
EPA Site Inspection	DR044	08/12/98	Lead	3.74E+01 J	2.22		450	530	mg/kg DW	<1	<1
LDWRI-Benthic	B2a	08/13/04	Lead	3.70E+01 J	1.97		450	530	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS3	03/09/05	Lead	3.70E+01	0.723		450	530	mg/kg DW	<1	<1
Terminal 105 Site Assessment	SS2	11/17/93	Lead	3.70E+01 T	0.98		450	530	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS315	10/04/06	Lead	3.60E+01	1.74		450	530	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	KI-2	09/24/97	Lead	3.54E+01	2.03		450	530	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	WQAKELL	05/08/97	Lead	3.53E+01	2.05		450	530	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SSSWCSO-U	04/08/11	Lead	3.50E+01 J	1.2		450	530	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	KI-3	09/24/97	Lead	3.43E+01	2.24		450	530	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-9	03/28/96	Lead	3.30E+01	1.68		450	530	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-15	03/28/96	Lead	3.26E+01	1.46		450	530	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	WQAKELL	03/12/97	Lead	3.25E+01	2.09		450	530	mg/kg DW	<1	<1
EPA Site Inspection	DR046	08/12/98	Lead	3.24E+01 J	2.26		450	530	mg/kg DW	<1	<1
EPA Site Inspection	DR037	08/18/98	Lead	3.20E+01	2.02		450	530	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-8	03/28/96	Lead	3.20E+01	1.78		450	530	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	KI-3	09/24/97	Lead	3.17E+01	2.145		450	530	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2157-A	03/24/11	Lead	3.00E+01	1.81		450	530	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS313	10/04/06	Lead	3.00E+01	1.95		450	530	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	WQAKELL	03/06/97	Lead	2.92E+01	2.27		450	530	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	KI-3	09/24/97	Lead	2.91E+01	2.05		450	530	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SSSWCSO-A	04/08/11	Lead	2.90E+01 J	2.69		450	530	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	WQAKELL	04/08/97	Lead	2.90E+01	2.04		450	530	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	WQAKELL	05/01/97	Lead	2.87E+01	2.03		450	530	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2144-A	03/14/11	Lead	2.80E+01	0.849		450	530	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	WQAKELL	04/03/97	Lead	2.74E+01	2.17		450	530	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2232-U	04/20/11	Lead	2.70E+01	1.63		450	530	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-6	03/28/96	Lead	2.64E+01	1.79		450	530	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-6	03/28/96	Lead	2.60E+01	1.79		450	530	mg/kg DW	<1	<1
EPA Site Inspection	DR076	08/24/98	Lead	2.59E+01	0.1		450	530	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-7	03/28/96	Lead	2.50E+01	1.76		450	530	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	WQAKELL	03/27/97	Lead	2.49E+01	2.07		450	530	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	WQAKELL	04/17/97	Lead	2.49E+01	2.19		450	530	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	WQAKELL	04/24/97	Lead	2.44E+01	2.06		450	530	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS14	01/17/05	Lead	2.20E+01	0.79		450	530	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-2	03/28/96	Lead	2.20E+01	1.74		450	530	mg/kg DW	<1	<1
EPA Site Inspection	DR067	08/18/98	Lead	1.98E+01	0.82		450	530	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS314	10/04/06	Lead	1.90E+01	2.81		450	530	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2147-D	03/14/11	Lead	1.80E+01	0.782		450	530	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2232-A	04/20/11	Lead	1.70E+01	1.11		450	530	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS23	01/18/05	Lead	1.60E+01	1.23		450	530	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2146-A	03/14/11	Lead	1.50E+01	1.01		450	530	mg/kg DW	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
Harbor Island RI	K-05	09/27/91	Lead	1.44E+01 J	1.6		450	530	mg/kg DW	<1	<1
LDWRI-Benthic	C1	08/26/04	Lead	1.31E+01 J	0.47		450	530	mg/kg DW	<1	<1
LDWRI-Benthic	C2-1	08/26/04	Lead	1.09E+01 J	1.82		450	530	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2232-D	04/20/11	Lead	1.00E+01	0.778		450	530	mg/kg DW	<1	<1
Terminal 105 Site Assessment	SS3	11/17/93	Lead	9.40E+00 T	0.13		450	530	mg/kg DW	<1	<1
LDWRI-Benthic	B3a	08/26/04	Lead	9.13E+00	1.36		450	530	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	KI-4	09/24/97	Lead	8.70E+00	0.71		450	530	mg/kg DW	<1	<1
LDWRI-Benthic	C2-2	08/26/04	Lead	7.94E+00 J	1.06		450	530	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	KI-4	09/24/97	Lead	7.85E+00	0.81		450	530	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	KI-4	09/24/97	Lead	7.00E+00	0.91		450	530	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS34	03/14/05	Lead	7.00E+00	1.52		450	530	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SSC1	03/15/05	Lead	4.00E+00	0.625		450	530	mg/kg DW	<1	<1
EPA Site Inspection	DR038	09/02/98	Manganese	4.97E+02	2.62						
EPA Site Inspection	DR039	08/12/98	Manganese	4.00E+02	2.43						
EPA Site Inspection	DR041	08/12/98	Manganese	3.89E+02	2.43						
EPA Site Inspection	DR079	08/24/98	Manganese	3.79E+02	2.18						
EPA Site Inspection	DR048	08/12/98	Manganese	3.78E+02	2.03						
EPA Site Inspection	DR078	08/24/98	Manganese	3.74E+02	2.07						
EPA Site Inspection	DR068	08/18/98	Manganese	3.69E+02	2.36						
EPA Site Inspection	DR037	08/18/98	Manganese	3.66E+02	2.02						
EPA Site Inspection	DR040	08/12/98	Manganese	3.46E+02	4.69						
EPA Site Inspection	DR069	08/18/98	Manganese	3.35E+02	1.92						
EPA Site Inspection	DR066	08/18/98	Manganese	3.27E+02	2.25						
EPA Site Inspection	DR036	08/12/98	Manganese	3.23E+02	3.37						
EPA Site Inspection	DR077	08/24/98	Manganese	3.23E+02	1.61						
EPA Site Inspection	DR080	08/24/98	Manganese	3.23E+02	1.82						
EPA Site Inspection	DR035	08/11/98	Manganese	2.75E+02	2.29						
EPA Site Inspection	DR034	08/11/98	Manganese	2.67E+02	1.84						
EPA Site Inspection	DR044	08/12/98	Manganese	2.66E+02	2.22						
EPA Site Inspection	DR032	08/11/98	Manganese	2.63E+02	1.79						
EPA Site Inspection	DR042	08/12/98	Manganese	2.61E+02	9.23						
Puget Sound Sediment Quality/ NOAA Site Characterization	203	06/22/98	Manganese	2.57E+02	1.5						
EPA Site Inspection	DR044	08/12/98	Manganese	2.49E+02	2.68						
EPA Site Inspection	DR070	08/12/98	Manganese	2.45E+02	1.75						
EPA Site Inspection	DR031	08/11/98	Manganese	2.42E+02	2.07						
EPA Site Inspection	DR033	08/11/98	Manganese	2.34E+02	1.72						
EPA Site Inspection	DR047	09/14/98	Manganese	2.10E+02	1.4						
EPA Site Inspection	DR044	08/12/98	Manganese	1.71E+02	2.08						
EPA Site Inspection	DR045	09/14/98	Manganese	1.67E+02	2.92						
EPA Site Inspection	DR043	08/12/98	Manganese	1.62E+02	4.48						
EPA Site Inspection	DR046	08/12/98	Manganese	1.56E+02	2.26						
EPA Site Inspection	DR067	08/18/98	Manganese	1.56E+02	0.82						
EPA Site Inspection	DR076	08/24/98	Manganese	1.35E+02	0.1						
LDWRI-Surface Sediment Round 3	LDW-SS310	10/03/06	Mercury	1.80E+00	1.63		0.41	0.59	mg/kg DW	4.4	3.1
LDWRI-Surface Sediment Round 3	LDW-SS309	10/03/06	Mercury	1.55E+00	2.02		0.41	0.59	mg/kg DW	3.8	2.6
LDWRI-Surface Sediment Round 2	LDW-SS24	03/14/05	Mercury	6.30E-01	5.99		0.41	0.59	mg/kg DW	1.5	1.1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
LDWRI-Surface Sediment Round 1	LDW-SS15	01/17/05	Mercury	6.00E-01	1.79		0.41	0.59	mg/kg DW	1.5	1.0
LDWRI-Surface Sediment Round 3	LDW-SS312	10/03/06	Mercury	6.00E-01	4.2		0.41	0.59	mg/kg DW	1.5	1.0
Ecology SPI	TRI-015T	08/08/06	Mercury	5.51E-01	2.16		0.41	0.59	mg/kg DW	1.3	<1
EPA Site Inspection	DR035	08/11/98	Mercury	5.20E-01	2.29		0.41	0.59	mg/kg DW	1.3	<1
EPA Site Inspection	DR044	08/12/98	Mercury	5.00E-01	2.22		0.41	0.59	mg/kg DW	1.2	<1
Ecology SPI	TRI-016	08/08/06	Mercury	4.01E-01	2.38		0.41	0.59	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS16	03/08/05	Mercury	4.00E-01	2.11		0.41	0.59	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS19	03/08/05	Mercury	4.00E-01	2.07		0.41	0.59	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS10	01/17/05	Mercury	3.90E-01	1.63		0.41	0.59	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS308	10/03/06	Mercury	3.70E-01	1.86		0.41	0.59	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-16	03/28/96	Mercury	3.50E-01	2.99		0.41	0.59	mg/kg DW	<1	<1
Terminal 105 Site Assessment	SS1	11/23/93	Mercury	3.50E-01 T	1.9		0.41	0.59	mg/kg DW	<1	<1
EPA Site Inspection	DR038	09/02/98	Mercury	3.40E-01	2.62		0.41	0.59	mg/kg DW	<1	<1
EPA Site Inspection	DR068	08/18/98	Mercury	3.30E-01	2.36		0.41	0.59	mg/kg DW	<1	<1
Ecology SPI	TRI-010	08/08/06	Mercury	3.24E-01	2.2		0.41	0.59	mg/kg DW	<1	<1
EPA Site Inspection	DR077	08/24/98	Mercury	3.20E-01	1.61		0.41	0.59	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-12	03/28/96	Mercury	3.10E-01	2.43		0.41	0.59	mg/kg DW	<1	<1
EPA Site Inspection	DR044	08/12/98	Mercury	3.00E-01	2.68		0.41	0.59	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS311	10/03/06	Mercury	3.00E-01	4.36		0.41	0.59	mg/kg DW	<1	<1
EPA Site Inspection	DR069	08/18/98	Mercury	2.90E-01	1.92		0.41	0.59	mg/kg DW	<1	<1
Ecology SPI	SPI-108	08/11/06	Mercury	2.85E-01 J	1.55		0.41	0.59	mg/kg DW	<1	<1
EPA Site Inspection	DR034	08/11/98	Mercury	2.80E-01	1.84		0.41	0.59	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2157-A	03/24/11	Mercury	2.70E-01	1.81		0.41	0.59	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-3	03/28/96	Mercury	2.70E-01	2.22		0.41	0.59	mg/kg DW	<1	<1
EPA Site Inspection	DR039	08/12/98	Mercury	2.60E-01	2.43		0.41	0.59	mg/kg DW	<1	<1
EPA Site Inspection	DR079	08/24/98	Mercury	2.50E-01	2.18		0.41	0.59	mg/kg DW	<1	<1
EPA Site Inspection	DR070	08/12/98	Mercury	2.40E-01	1.75		0.41	0.59	mg/kg DW	<1	<1
EPA Site Inspection	DR078	08/24/98	Mercury	2.40E-01	2.07		0.41	0.59	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS12	01/17/05	Mercury	2.40E-01	1.88		0.41	0.59	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS36	01/24/05	Mercury	2.40E-01	1.89		0.41	0.59	mg/kg DW	<1	<1
EPA Site Inspection	DR066	08/18/98	Mercury	2.30E-01	2.25		0.41	0.59	mg/kg DW	<1	<1
EPA Site Inspection	DR031	08/11/98	Mercury	2.20E-01	2.07		0.41	0.59	mg/kg DW	<1	<1
EPA Site Inspection	DR037	08/18/98	Mercury	2.20E-01	2.02		0.41	0.59	mg/kg DW	<1	<1
EPA Site Inspection	DR041	08/12/98	Mercury	2.20E-01	2.43		0.41	0.59	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	WQAKELL	03/06/97	Mercury	2.20E-01	2.27		0.41	0.59	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	KI-1	09/24/97	Mercury	2.10E-01 J	2.29		0.41	0.59	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-17	03/28/96	Mercury	2.10E-01	2.66		0.41	0.59	mg/kg DW	<1	<1
EPA Site Inspection	DR033	08/11/98	Mercury	2.00E-01	1.72		0.41	0.59	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	KI-2	09/24/97	Mercury	2.00E-01 J	2.03		0.41	0.59	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS29	03/14/05	Mercury	2.00E-01	1.68		0.41	0.59	mg/kg DW	<1	<1
EPA Site Inspection	DR032	08/11/98	Mercury	1.90E-01	1.79		0.41	0.59	mg/kg DW	<1	<1
Harbor Island RI	K-05	09/27/91	Mercury	1.90E-01 J	1.6		0.41	0.59	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-11	03/28/96	Mercury	1.90E-01	2.7		0.41	0.59	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-9	03/28/96	Mercury	1.90E-01	1.68		0.41	0.59	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	WQAKELL	03/12/97	Mercury	1.90E-01	2.09		0.41	0.59	mg/kg DW	<1	<1
EPA Site Inspection	DR040	08/12/98	Mercury	1.80E-01	4.69		0.41	0.59	mg/kg DW	<1	<1
EPA Site Inspection	DR048	08/12/98	Mercury	1.80E-01	2.03		0.41	0.59	mg/kg DW	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
EPA Site Inspection	DR080	08/24/98	Mercury	1.80E-01	1.82		0.41	0.59	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SSSWCSO-A	04/08/11	Mercury	1.80E-01	2.69		0.41	0.59	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SSSWCSO-U	04/08/11	Mercury	1.80E-01	1.2		0.41	0.59	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-1	03/28/96	Mercury	1.80E-01	3.4		0.41	0.59	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-10	03/28/96	Mercury	1.80E-01	2.57		0.41	0.59	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-13	03/28/96	Mercury	1.80E-01	2.64		0.41	0.59	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-4	03/28/96	Mercury	1.80E-01	1.85		0.41	0.59	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-5	03/28/96	Mercury	1.80E-01	2.05		0.41	0.59	mg/kg DW	<1	<1
EPA Site Inspection	DR042	08/12/98	Mercury	1.70E-01	9.23		0.41	0.59	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS9	03/14/05	Mercury	1.70E-01	1.79		0.41	0.59	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	WQAKELL	04/17/97	Mercury	1.70E-01	2.05		0.41	0.59	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	WQAKELL	05/08/97	Mercury	1.70E-01	2.07		0.41	0.59	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-6	03/28/96	Mercury	1.60E-01	1.79		0.41	0.59	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-6	03/28/96	Mercury	1.60E-01	1.79		0.41	0.59	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-7	03/28/96	Mercury	1.60E-01	1.76		0.41	0.59	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-8	03/28/96	Mercury	1.60E-01	1.78		0.41	0.59	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	WQAKELL	04/03/97	Mercury	1.60E-01	2.06		0.41	0.59	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	WQAKELL	04/24/97	Mercury	1.60E-01	2.17		0.41	0.59	mg/kg DW	<1	<1
Puget Sound Sediment Quality/ NOAA Site Characterization	203	06/22/98	Mercury	1.50E-01	1.5		0.41	0.59	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS315	10/04/06	Mercury	1.50E-01	1.74		0.41	0.59	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	WQAKELL	04/08/97	Mercury	1.50E-01	2.03		0.41	0.59	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	WQAKELL	05/01/97	Mercury	1.50E-01	2.04		0.41	0.59	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-2	03/28/96	Mercury	1.40E-01	1.74		0.41	0.59	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2149-A	04/20/11	Mercury	1.30E-01	9.22		0.41	0.59	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-14	03/28/96	Mercury	1.30E-01	1.68		0.41	0.59	mg/kg DW	<1	<1
EPA Site Inspection	DR043	08/12/98	Mercury	1.20E-01	4.48		0.41	0.59	mg/kg DW	<1	<1
EPA Site Inspection	DR044	08/12/98	Mercury	1.20E-01	2.08		0.41	0.59	mg/kg DW	<1	<1
EPA Site Inspection	DR046	08/12/98	Mercury	1.20E-01	2.26		0.41	0.59	mg/kg DW	<1	<1
EPA Site Inspection	DR047	09/14/98	Mercury	1.20E-01	1.4		0.41	0.59	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS28	01/24/05	Mercury	1.20E-01	1.22		0.41	0.59	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-15	03/28/96	Mercury	1.20E-01	1.46		0.41	0.59	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	WQAKELL	03/27/97	Mercury	1.20E-01	2.19		0.41	0.59	mg/kg DW	<1	<1
EPA Site Inspection	DR045	09/14/98	Mercury	1.10E-01	2.92		0.41	0.59	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS313	10/04/06	Mercury	1.10E-01	1.95		0.41	0.59	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-20	03/28/96	Mercury	1.00E-01	1.13		0.41	0.59	mg/kg DW	<1	<1
EPA Site Inspection	DR036	08/12/98	Mercury	9.00E-02	3.37		0.41	0.59	mg/kg DW	<1	<1
EPA Site Inspection	DR067	08/18/98	Mercury	9.00E-02	0.82		0.41	0.59	mg/kg DW	<1	<1
LDWRI-Benthic	B2a	08/13/04	Mercury	8.50E-02	1.97		0.41	0.59	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS3	03/09/05	Mercury	8.00E-02	0.723		0.41	0.59	mg/kg DW	<1	<1
LDWRI-Benthic	B1a	08/13/04	Mercury	7.90E-02	1.7		0.41	0.59	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2232-A	04/20/11	Mercury	7.00E-02	1.11		0.41	0.59	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS23	01/18/05	Mercury	7.00E-02	1.23		0.41	0.59	mg/kg DW	<1	<1
LDWRI-Benthic	C2-2	08/26/04	Mercury	6.60E-02	1.06		0.41	0.59	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-18	03/28/96	Mercury	6.00E-02	3.11		0.41	0.59	mg/kg DW	<1	<1
LDWRI-Benthic	C1	08/26/04	Mercury	5.30E-02	0.47		0.41	0.59	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2147-D	03/14/11	Mercury	5.00E-02	0.782		0.41	0.59	mg/kg DW	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
LDW Outfall Sampling	LDW-SS2233-D	04/20/11	Mercury	5.00E-02	0.617		0.41	0.59	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-19	03/28/96	Mercury	5.00E-02	2.75		0.41	0.59	mg/kg DW	<1	<1
LDWRI-Benthic	C3-1	08/27/04	Mercury	4.70E-02	0.93		0.41	0.59	mg/kg DW	<1	<1
LDWRI-Benthic	C2-1	08/26/04	Mercury	4.10E-02	1.82		0.41	0.59	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2144-A	03/14/11	Mercury	4.00E-02	0.849		0.41	0.59	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2146-A	03/14/11	Mercury	4.00E-02	1.01		0.41	0.59	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2148-A	04/20/11	Mercury	4.00E-02	5.62		0.41	0.59	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2232-U	04/20/11	Mercury	4.00E-02	1.63		0.41	0.59	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2150-A	04/20/11	Mercury	3.00E-02	4.42		0.41	0.59	mg/kg DW	<1	<1
LDWRI-Benthic	C3-2	08/27/04	Mercury	2.90E-02	1.31		0.41	0.59	mg/kg DW	<1	<1
LDWRI-Benthic	B3a	08/26/04	Mercury	2.50E-02	1.36		0.41	0.59	mg/kg DW	<1	<1
EPA Site Inspection	DR076	08/24/98	Mercury	2.00E-02 J			0.41	0.59	mg/kg DW	<1	<1
LDWRI-Benthic	C1	08/26/04	Methoxychlor	9.60E-04 J	0.47						
LDWRI-Benthic	B1a	08/13/04	Methoxychlor	8.40E-04 JN	1.7						
LDWRI-Benthic	C2-1	08/26/04	Methoxychlor	5.00E-04 J	1.82						
LDWRI-Benthic	C3-1	08/27/04	Methoxychlor	3.40E-04 J	0.93						
EPA Site Inspection	DR033	08/11/98	Methyl ethyl ketone	1.24E-02	1.72						
KC CSO Water Quality Assessment	WQAKELL	05/01/97	Methylmercury	1.25E-03	2.03						
KC CSO Water Quality Assessment	WQAKELL	03/12/97	Methylmercury	7.20E-04	2.09						
KC CSO Water Quality Assessment	WQAKELL	04/03/97	Methylmercury	6.70E-04	2.06						
KC CSO Water Quality Assessment	WQAKELL	04/24/97	Methylmercury	6.70E-04	2.17						
KC CSO Water Quality Assessment	WQAKELL	04/08/97	Methylmercury	6.60E-04	2.04						
KC CSO Water Quality Assessment	WQAKELL	04/17/97	Methylmercury	6.30E-04	2.07						
KC CSO Water Quality Assessment	WQAKELL	03/27/97	Methylmercury	5.90E-04	2.19						
KC CSO Water Quality Assessment	WQAKELL	05/08/97	Methylmercury	5.50E-04	2.05						
KC CSO Water Quality Assessment	WQAKELL	03/06/97	Methylmercury	3.20E-04	2.27						
LDWRI-Surface Sediment Round 3	LDW-SS311	10/03/06	Molybdenum	8.80E+00	4.36						
LDWRI-Surface Sediment Round 3	LDW-SS314	10/04/06	Molybdenum	3.70E+00	2.81						
LDWRI-Surface Sediment Round 2	LDW-SS16	03/08/05	Molybdenum	3.00E+00	2.11						
LDWRI-Surface Sediment Round 2	LDW-SS24	03/14/05	Molybdenum	3.00E+00	5.99						
LDWRI-Surface Sediment Round 2	LDW-SS19	03/08/05	Molybdenum	2.60E+00	2.07						
LDWRI-Surface Sediment Round 1	LDW-SS28	01/24/05	Molybdenum	2.10E+00	1.22						
LDWRI-Surface Sediment Round 3	LDW-SS312	10/03/06	Molybdenum	2.10E+00	4.2						
LDWRI-Surface Sediment Round 1	LDW-SS10	01/17/05	Molybdenum	2.00E+00	1.63						
LDWRI-Surface Sediment Round 1	LDW-SS15	01/17/05	Molybdenum	2.00E+00	1.79						
LDWRI-Surface Sediment Round 2	LDW-SS29	03/14/05	Molybdenum	2.00E+00	1.68						
LDWRI-Surface Sediment Round 1	LDW-SS36	01/24/05	Molybdenum	2.00E+00	1.89						
LDWRI-Surface Sediment Round 3	LDW-SS313	10/04/06	Molybdenum	1.90E+00	1.95						
LDWRI-Surface Sediment Round 1	LDW-SS12	01/17/05	Molybdenum	1.80E+00	1.88						
LDWRI-Surface Sediment Round 2	LDW-SS9	03/14/05	Molybdenum	1.80E+00	1.79						
LDWRI-Surface Sediment Round 2	LDW-SS3	03/09/05	Molybdenum	1.50E+00	0.723						
LDWRI-Benthic	C2-1	08/26/04	Molybdenum	1.25E+00 J	1.82						
LDWRI-Surface Sediment Round 1	LDW-SS14	01/17/05	Molybdenum	1.00E+00	0.79						
LDWRI-Benthic	B3a	08/26/04	Molybdenum	9.77E-01	1.36						
LDWRI-Surface Sediment Round 1	LDW-SS23	01/18/05	Molybdenum	9.00E-01	1.23						
LDWRI-Surface Sediment Round 3	LDW-SS308	10/03/06	Molybdenum	9.00E-01	1.86						
LDWRI-Surface Sediment Round 3	LDW-SS309	10/03/06	Molybdenum	9.00E-01	2.02						

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
LDWRI-Surface Sediment Round 1	LDW-SS33	01/26/05	Molybdenum	9.00E-01	1.66						
LDWRI-Surface Sediment Round 3	LDW-SS310	10/03/06	Molybdenum	8.00E-01	1.63						
LDWRI-Surface Sediment Round 2	LDW-SSC1	03/15/05	Molybdenum	8.00E-01	0.625						
LDWRI-Surface Sediment Round 3	LDW-SS315	10/04/06	Molybdenum	7.00E-01	1.74						
LDWRI-Benthic	C2-2	08/26/04	Molybdenum	6.66E-01 J	1.06						
LDWRI-Benthic	B2a	08/13/04	Molybdenum	6.60E-01	1.97						
LDWRI-Benthic	C3-2	08/27/04	Molybdenum	5.37E-01 J	1.31						
LDWRI-Benthic	B1a	08/13/04	Molybdenum	5.01E-01	1.7						
LDWRI-Surface Sediment Round 3	LDW-SS306	10/03/06	Molybdenum	5.00E-01	0.284						
LDWRI-Benthic	C1	08/26/04	Molybdenum	4.94E-01 J	0.47						
LDWRI-Benthic	C3-1	08/27/04	Molybdenum	4.55E-01 J	0.93						
Ecology SPI	TRI-015T	08/08/06	Monobutyltin as ion	3.60E-02 J	2.16						
Ecology SPI	TRI-010	08/08/06	Monobutyltin as ion	3.50E-02 J	2.2						
Ecology SPI	SPI-108	08/11/06	Monobutyltin as ion	3.20E-02 J	1.55						
Ecology SPI	TRI-016	08/08/06	Monobutyltin as ion	3.20E-02 J	2.38						
LDWRI-Benthic	B2a	08/13/04	Monobutyltin as ion	8.60E-03	1.97						
LDWRI-Surface Sediment Round 3	LDW-SS310	10/03/06	Monobutyltin as ion	5.20E-03	1.63						
LDWRI-Benthic	C3-1	08/27/04	Monobutyltin as ion	1.40E-03	0.93						
LDWRI-Benthic	C2-2	08/26/04	Monobutyltin as ion	1.20E-03	1.06						
LDWRI-Benthic	C2-1	08/26/04	Monobutyltin as ion	6.60E-04 J	1.82						
LDWRI-Benthic	C3-2	08/27/04	Monobutyltin as ion	6.40E-04 J	1.31						
LDWRI-Benthic	C1	08/26/04	Monobutyltin as ion	3.10E-04 J	0.47						
LDWRI-Benthic	B1a	08/13/04	Monobutyltin as ion	2.70E-04 J	1.7						
LDWRI-Benthic	B3a	08/26/04	Monobutyltin as ion	1.20E-04 J	1.36						
LDWRI-Surface Sediment Round 3	LDW-SS312[a]	10/03/06	Naphthalene	1.80E-01	4.2		2.1	2.4	mg/kg DW	<1	<1
EPA Site Inspection	DR037	08/18/98	Naphthalene	1.30E-01	2.02	6.44E+00	99	170	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS24[a]	03/14/05	Naphthalene	1.10E-01	5.99		2.1	2.4	mg/kg DW	<1	<1
LDW Dioxin Sampling	LDW-SS509[a]	12/15/09	Naphthalene	9.20E-02	7.08		2.1	2.4	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2232-A	04/20/11	Naphthalene	8.20E-02	1.11	7.39E+00	99	170	mg/kg OC	<1	<1
Ecology SPI	SPI-108	08/11/06	Naphthalene	8.10E-02	1.55	5.23E+00	99	170	mg/kg OC	<1	<1
EPA Site Inspection	DR038	09/02/98	Naphthalene	7.00E-02	2.62	2.67E+00	99	170	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2157-A	03/24/11	Naphthalene	6.70E-02	1.81	3.70E+00	99	170	mg/kg OC	<1	<1
Ecology SPI	TRI-015T	08/08/06	Naphthalene	6.50E-02	2.16	3.01E+00	99	170	mg/kg OC	<1	<1
EPA Site Inspection	DR033	08/11/98	Naphthalene	6.00E-02	1.72	3.49E+00	99	170	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2150-A[a]	04/20/11	Naphthalene	5.40E-02	9.22		2.1	2.4	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SSSWCSO-U	04/08/11	Naphthalene	4.80E-02	1.2	4.00E+00	99	170	mg/kg OC	<1	<1
Puget Sound Sediment Quality/ NOAA Site Characterization	203	06/22/98	Naphthalene	4.70E-02	1.5	3.13E+00	99	170	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS311[a]	10/03/06	Naphthalene	4.50E-02 J	4.36		2.1	2.4	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SSSWCSO-A	04/08/11	Naphthalene	4.00E-02	2.69	1.49E+00	99	170	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS9	03/14/05	Naphthalene	3.80E-02	1.79	2.12E+00	99	170	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS310	10/03/06	Naphthalene	3.70E-02 J	1.63	2.27E+00	99	170	mg/kg OC	<1	<1
Ecology SPI	TRI-010	08/08/06	Naphthalene	3.40E-02	2.2	1.55E+00	99	170	mg/kg OC	<1	<1
EPA Site Inspection	DR031	08/11/98	Naphthalene	3.00E-02	2.07	1.45E+00	99	170	mg/kg OC	<1	<1
EPA Site Inspection	DR040[a]	08/12/98	Naphthalene	3.00E-02	4.69	6.40E-01	2.1	2.4	mg/kg DW	<1	<1
Ecology SPI	TRI-016	08/08/06	Naphthalene	2.90E-02	2.38	1.22E+00	99	170	mg/kg OC	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
EPA Site Inspection	DR034	08/11/98	Naphthalene	2.00E-02	1.84	1.09E+00	99	170	mg/kg OC	<1	<1
EPA Site Inspection	DR035	08/11/98	Naphthalene	2.00E-02	2.29	8.73E-01	99	170	mg/kg OC	<1	<1
EPA Site Inspection	DR068	08/18/98	Naphthalene	2.00E-02	2.36	8.47E-01	99	170	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2150-A[a]	04/20/11	Naphthalene	1.60E-02 J	5.62		2.1	2.4	mg/kg DW	<1	<1
LDWRI-Benthic	B2a	08/13/04	Naphthalene	1.30E-02	1.97	6.60E-01	99	170	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS3	03/09/05	Naphthalene	1.30E-02 J	0.723	1.80E+00	99	170	mg/kg OC	<1	<1
Terminal 105 Site Assessment	SS2	11/17/93	Naphthalene	1.00E-02 J	0.98	1.02E+00	99	170	mg/kg OC	<1	<1
LDWRI-Benthic	B1a	08/13/04	Naphthalene	9.90E-03	1.7	5.82E-01	99	170	mg/kg OC	<1	<1
LDWRI-Benthic	C2-1	08/26/04	Naphthalene	8.70E-03	1.82	4.78E-01	99	170	mg/kg OC	<1	<1
LDWRI-Benthic	C3-1	08/27/04	Naphthalene	5.20E-03	0.93	5.59E-01	99	170	mg/kg OC	<1	<1
LDWRI-Benthic	C3-2	08/27/04	Naphthalene	5.20E-03	1.31	3.97E-01	99	170	mg/kg OC	<1	<1
LDWRI-Benthic	C2-2	08/26/04	Naphthalene	4.60E-03	1.06	4.34E-01	99	170	mg/kg OC	<1	<1
LDWRI-Benthic	C1[a]	08/26/04	Naphthalene	3.80E-03 J	0.47		2.1	2.4	mg/kg DW	<1	<1
LDWRI-Benthic	B3a	08/26/04	Naphthalene	3.70E-03 J	1.36	2.72E-01	99	170	mg/kg OC	<1	<1
EPA Site Inspection	DR038	09/02/98	n-Butyltin	5.50E-02 J							
EPA Site Inspection	DR070	08/12/98	n-Butyltin	4.40E-02 J	1.75						
EPA Site Inspection	DR033	08/11/98	n-Butyltin	3.00E-02 J							
EPA Site Inspection	DR042	08/12/98	n-Butyltin	1.70E-02 J	9.23						
EPA Site Inspection	DR046	08/12/98	n-Butyltin	1.10E-02 J	2.26						
EPA Site Inspection	DR047	09/14/98	n-Butyltin	1.10E-02 J	1.4						
EPA Site Inspection	DR068	08/18/98	n-Butyltin	1.00E-02 J							
Terminal 105 Site Assessment	SS1	11/23/93	Nickel	3.80E+01 T	1.9						
Seaboard Lumber-Phase 2 Investigation	SD-2	03/28/96	Nickel	3.70E+01	1.74						
Seaboard Lumber-Phase 2 Investigation	SD-7	03/28/96	Nickel	3.70E+01	1.76						
Seaboard Lumber-Phase 2 Investigation	SD-8	03/28/96	Nickel	3.70E+01	1.78						
Seaboard Lumber-Phase 2 Investigation	SD-9	03/28/96	Nickel	3.60E+01	1.68						
EPA Site Inspection	DR036	08/12/98	Nickel	3.58E+01	3.37						
Seaboard Lumber-Phase 2 Investigation	SD-5	03/28/96	Nickel	3.40E+01	2.05						
KC CSO Water Quality Assessment	KI-3	09/24/97	Nickel	3.38E+01	2.24						
KC CSO Water Quality Assessment	KI-3	09/24/97	Nickel	3.36E+01	2.145						
KC CSO Water Quality Assessment	KI-3	09/24/97	Nickel	3.33E+01	2.05						
KC CSO Water Quality Assessment	WQAKELL	03/12/97	Nickel	3.32E+01	2.09						
Seaboard Lumber-Phase 2 Investigation	SD-6	03/28/96	Nickel	3.30E+01	1.79						
Seaboard Lumber-Phase 2 Investigation	SD-6	03/28/96	Nickel	3.30E+01	1.79						
KC CSO Water Quality Assessment	KI-1	09/24/97	Nickel	3.25E+01	2.59						
LDWRI-Surface Sediment Round 1	LDW-SS33	01/26/05	Nickel	3.20E+01	1.66						
Seaboard Lumber-Phase 2 Investigation	SD-1	03/28/96	Nickel	3.20E+01	3.4						
KC CSO Water Quality Assessment	KI-1	09/24/97	Nickel	3.16E+01	2.44						
KC CSO Water Quality Assessment	WQAKELL	03/06/97	Nickel	3.13E+01	2.27						
EPA Site Inspection	DR038	09/02/98	Nickel	3.10E+01	2.62						
Seaboard Lumber-Phase 2 Investigation	SD-18	03/28/96	Nickel	3.10E+01	3.11						
Seaboard Lumber-Phase 2 Investigation	SD-4	03/28/96	Nickel	3.10E+01	1.85						
KC CSO Water Quality Assessment	KI-1	09/24/97	Nickel	3.06E+01	2.29						
KC CSO Water Quality Assessment	WQAKELL	04/08/97	Nickel	3.03E+01	2.04						
LDWRI-Surface Sediment Round 1	LDW-SS14	01/17/05	Nickel	3.00E+01	0.79						
KC CSO Water Quality Assessment	WQAKELL	05/08/97	Nickel	2.93E+01	2.05						

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
KC CSO Water Quality Assessment	WQAKELL	04/03/97	Nickel	2.92E+01	2.03						
KC CSO Water Quality Assessment	WQAKELL	05/01/97	Nickel	2.92E+01	2.17						
LDWRI-Surface Sediment Round 2	LDW-SS19	03/08/05	Nickel	2.90E+01	2.07						
Seaboard Lumber-Phase 2 Investigation	SD-17	03/28/96	Nickel	2.90E+01	2.66						
Seaboard Lumber-Phase 2 Investigation	SD-3	03/28/96	Nickel	2.90E+01	2.22						
Ecology SPI	TRI-016	08/08/06	Nickel	2.84E+01	2.38						
LDWRI-Surface Sediment Round 1	LDW-SS10	01/17/05	Nickel	2.80E+01	1.63						
Seaboard Lumber-Phase 2 Investigation	SD-11	03/28/96	Nickel	2.80E+01	2.7						
Terminal 105 Site Assessment	SS2	11/17/93	Nickel	2.80E+01 T	0.98						
KC CSO Water Quality Assessment	WQAKELL	04/24/97	Nickel	2.77E+01	2.06						
EPA Site Inspection	DR039	08/12/98	Nickel	2.76E+01	2.43						
KC CSO Water Quality Assessment	KI-2	09/24/97	Nickel	2.76E+01	2.03						
KC CSO Water Quality Assessment	WQAKELL	03/27/97	Nickel	2.76E+01	2.07						
KC CSO Water Quality Assessment	WQAKELL	04/17/97	Nickel	2.76E+01	2.19						
EPA Site Inspection	DR078	08/24/98	Nickel	2.74E+01	2.07						
EPA Site Inspection	DR080	08/24/98	Nickel	2.71E+01	1.82						
LDWRI-Surface Sediment Round 2	LDW-SS16	03/08/05	Nickel	2.70E+01	2.11						
Seaboard Lumber-Phase 2 Investigation	SD-20	03/28/96	Nickel	2.70E+01	1.13						
Ecology SPI	TRI-015T	08/08/06	Nickel	2.70E+01	2.16						
EPA Site Inspection	DR037	08/18/98	Nickel	2.69E+01	2.02						
Ecology SPI	TRI-010	08/08/06	Nickel	2.66E+01	2.2						
EPA Site Inspection	DR069	08/18/98	Nickel	2.64E+01	1.92						
KC CSO Water Quality Assessment	KI-2	09/24/97	Nickel	2.64E+01	2.06						
EPA Site Inspection	DR047	09/14/98	Nickel	2.62E+01	1.4						
LDWRI-Surface Sediment Round 1	LDW-SS15	01/17/05	Nickel	2.60E+01	1.79						
Seaboard Lumber-Phase 2 Investigation	SD-12	03/28/96	Nickel	2.60E+01	2.43						
Seaboard Lumber-Phase 2 Investigation	SD-13	03/28/96	Nickel	2.60E+01	2.64						
Seaboard Lumber-Phase 2 Investigation	SD-19	03/28/96	Nickel	2.60E+01	2.75						
EPA Site Inspection	DR079	08/24/98	Nickel	2.59E+01	2.18						
KC CSO Water Quality Assessment	KI-2	09/24/97	Nickel	2.52E+01	2.09						
LDWRI-Surface Sediment Round 1	LDW-SS28	01/24/05	Nickel	2.50E+01	1.22						
LDWRI-Surface Sediment Round 2	LDW-SS29	03/14/05	Nickel	2.50E+01	1.68						
Seaboard Lumber-Phase 2 Investigation	SD-10	03/28/96	Nickel	2.50E+01	2.57						
EPA Site Inspection	DR068	08/18/98	Nickel	2.47E+01	2.36						
EPA Site Inspection	DR066	08/18/98	Nickel	2.44E+01	2.25						
Ecology SPI	SPI-108	08/11/06	Nickel	2.43E+01	1.55						
LDWRI-Surface Sediment Round 1	LDW-SS12	01/17/05	Nickel	2.40E+01	1.88						
LDWRI-Surface Sediment Round 3	LDW-SS310	10/03/06	Nickel	2.40E+01	1.63						
LDWRI-Surface Sediment Round 1	LDW-SS36	01/24/05	Nickel	2.40E+01	1.89						
LDWRI-Surface Sediment Round 3	LDW-SS309	10/03/06	Nickel	2.38E+01	2.02						
EPA Site Inspection	DR035	08/11/98	Nickel	2.37E+01	2.29						
EPA Site Inspection	DR077	08/24/98	Nickel	2.35E+01	1.61						
EPA Site Inspection	DR034	08/11/98	Nickel	2.34E+01	1.84						
EPA Site Inspection	DR041	08/12/98	Nickel	2.33E+01	2.43						
Seaboard Lumber-Phase 2 Investigation	SD-16	03/28/96	Nickel	2.30E+01	2.99						
LDWRI-Surface Sediment Round 3	LDW-SS308	10/03/06	Nickel	2.26E+01	1.86						
LDWRI-Surface Sediment Round 3	LDW-SS306	10/03/06	Nickel	2.24E+01	0.284						

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
EPA Site Inspection	DR048	08/12/98	Nickel	2.19E+01	2.03						
EPA Site Inspection	DR042	08/12/98	Nickel	2.14E+01	9.23						
LDWRI-Surface Sediment Round 2	LDW-SS24	03/14/05	Nickel	2.10E+01	5.99						
LDWRI-Surface Sediment Round 3	LDW-SS311	10/03/06	Nickel	2.10E+01	4.36						
EPA Site Inspection	DR033	08/11/98	Nickel	2.02E+01	1.72						
EPA Site Inspection	DR040	08/12/98	Nickel	2.01E+01	4.69						
Seaboard Lumber-Phase 2 Investigation	SD-14	03/28/96	Nickel	2.00E+01	1.68						
EPA Site Inspection	DR044	08/12/98	Nickel	1.99E+01	2.22						
LDWRI-Benthic	B2a	08/13/04	Nickel	1.95E+01	1.97						
Puget Sound Sediment Quality/ NOAA Site Characterization	203	06/22/98	Nickel	1.93E+01	1.5						
EPA Site Inspection	DR032	08/11/98	Nickel	1.92E+01	1.79						
EPA Site Inspection	DR070	08/12/98	Nickel	1.87E+01	1.75						
EPA Site Inspection	DR044	08/12/98	Nickel	1.86E+01	2.68						
LDWRI-Surface Sediment Round 3	LDW-SS314	10/04/06	Nickel	1.80E+01	2.81						
Seaboard Lumber-Phase 2 Investigation	SD-15	03/28/96	Nickel	1.80E+01	1.46						
LDWRI-Surface Sediment Round 3	LDW-SS315	10/04/06	Nickel	1.68E+01	1.74						
EPA Site Inspection	DR045	09/14/98	Nickel	1.65E+01	2.92						
EPA Site Inspection	DR031	08/11/98	Nickel	1.60E+01	2.07						
LDWRI-Surface Sediment Round 2	LDW-SS9	03/14/05	Nickel	1.60E+01	1.79						
LDWRI-Benthic	B1a	08/13/04	Nickel	1.59E+01	1.7						
EPA Site Inspection	DR044	08/12/98	Nickel	1.48E+01	2.08						
EPA Site Inspection	DR043	08/12/98	Nickel	1.39E+01	4.48						
EPA Site Inspection	DR046	08/12/98	Nickel	1.36E+01	2.26						
EPA Site Inspection	DR067	08/18/98	Nickel	1.32E+01	0.82						
LDWRI-Surface Sediment Round 2	LDW-SS3	03/09/05	Nickel	1.20E+01	0.723						
LDWRI-Surface Sediment Round 3	LDW-SS312	10/03/06	Nickel	1.20E+01	4.2						
LDWRI-Surface Sediment Round 1	LDW-SS23	01/18/05	Nickel	1.00E+01	1.23						
LDWRI-Surface Sediment Round 3	LDW-SS313	10/04/06	Nickel	1.00E+01	1.95						
LDWRI-Surface Sediment Round 2	LDW-SSC1	03/15/05	Nickel	1.00E+01	0.625						
EPA Site Inspection	DR076	08/24/98	Nickel	9.60E+00	0.1						
LDWRI-Benthic	C3-2	08/27/04	Nickel	8.73E+00	1.31						
LDWRI-Benthic	C3-1	08/27/04	Nickel	8.36E+00	0.93						
LDWRI-Surface Sediment Round 2	LDW-SS34	03/14/05	Nickel	8.00E+00	1.52						
LDWRI-Benthic	C1	08/26/04	Nickel	7.52E+00	0.47						
KC CSO Water Quality Assessment	KI-4	09/24/97	Nickel	7.40E+00	0.71						
KC CSO Water Quality Assessment	KI-4	09/24/97	Nickel	7.05E+00	0.81						
LDWRI-Benthic	B3a	08/26/04	Nickel	6.70E+00	1.36						
KC CSO Water Quality Assessment	KI-4	09/24/97	Nickel	6.70E+00	0.91						
LDWRI-Benthic	C2-1	08/26/04	Nickel	6.40E+00	1.82						
LDWRI-Benthic	C2-2	08/26/04	Nickel	6.31E+00	1.06						
Terminal 105 Site Assessment	SS3	11/17/93	Nickel	5.50E+00 T	0.13						
LDW Outfall Sampling	LDW-SS2149-A	04/20/11	N-Nitrosodi-n-propylamine	2.90E-02 J	9.22						
LDW Outfall Sampling	LDW-SSSWCSO-U	04/08/11	N-Nitrosodiphenylamine	1.50E-02 J	1.2	1.25E+00	11	11	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2150-A[a]	04/20/11	N-Nitrosodiphenylamine	9.60E-03	9.22		0.028	0.04	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS12	01/17/05	N-Nitrosodiphenylamine	6.50E-03	1.88	3.46E-01	11	11	mg/kg OC	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
LDW Outfall Sampling	LDW-SS2150-A[a]	04/20/11	N-Nitrosodiphenylamine	3.60E-03 J	5.62		0.028	0.04	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS36	01/24/05	OCDD	9.23E-03	1.89						
LDW Dioxin Sampling	LDW-SS509	12/15/09	OCDD	5.09E-03	7.08						
LDW Dioxin Sampling	LDW-SS507	12/16/09	OCDD	4.08E-03	1.79						
EPA Site Inspection	DR042	08/12/98	OCDD	3.90E-03	9.23						
LDW Dioxin Sampling	LDW-SS514	12/16/09	OCDD	3.45E-03	1.63						
LDWRI-Surface Sediment Round 1	LDW-SS28	01/24/05	OCDD	2.55E-03	1.22						
EPA Site Inspection	DR047	09/14/98	OCDD	2.40E-03	1.4						
LDW Outfall Sampling	LDW-SS2157-A	03/24/11	OCDD	2.29E-03	1.81						
EPA Site Inspection	DR046	08/12/98	OCDD	1.80E-03	2.26						
EPA Site Inspection	DR033	08/11/98	OCDD	1.30E-03	1.72						
LDW Outfall Sampling	LDW-SS2150-A	04/20/11	OCDD	4.25E-04	4.42						
LDWRI-Surface Sediment Round 1	LDW-SS14	01/17/05	OCDD	2.97E-04 J	0.79						
LDWRI-Surface Sediment Round 1	LDW-SS36	01/24/05	OCDF	4.93E-04	1.89						
LDW Dioxin Sampling	LDW-SS509	12/15/09	OCDF	3.85E-04	7.08						
EPA Site Inspection	DR042	08/12/98	OCDF	3.20E-04	9.23						
LDW Dioxin Sampling	LDW-SS514	12/16/09	OCDF	3.12E-04	1.63						
LDW Dioxin Sampling	LDW-SS507	12/16/09	OCDF	2.85E-04	1.79						
EPA Site Inspection	DR046	08/12/98	OCDF	1.70E-04	2.26						
LDW Outfall Sampling	LDW-SS2157-A	03/24/11	OCDF	1.64E-04	1.81						
LDWRI-Surface Sediment Round 1	LDW-SS28	01/24/05	OCDF	1.64E-04	1.22						
EPA Site Inspection	DR047	09/14/98	OCDF	1.40E-04	1.4						
EPA Site Inspection	DR033	08/11/98	OCDF	1.10E-04	1.72						
LDW Outfall Sampling	LDW-SS2150-A	04/20/11	OCDF	3.36E-05	4.42						
LDWRI-Surface Sediment Round 1	LDW-SS14	01/17/05	OCDF	1.25E-05	0.79						
EPA Site Inspection	DR044	08/12/98	PCBs (total calc'd)	1.93E+00	2.22	8.70E+01	12	65	mg/kg OC	7.3	1.3
LDWRI-Surface Sediment Round 3	LDW-SS312[a]	10/03/06	PCBs (total calc'd)	1.01E+00	4.2		0.13	1.0	mg/kg DW	7.8	1.0
EPA Site Inspection	DR040[a]	08/12/98	PCBs (total calc'd)	7.76E-01	4.69		0.13	1.0	mg/kg DW	6.0	<1
NOAA Site Characterization	WIT282[a]	11/12/97	PCBs (total calc'd)	7.70E-01	4.64		0.13	1.0	mg/kg DW	5.9	<1
NOAA Site Characterization	WIT286	09/15/97	PCBs (total calc'd)	6.60E-01	3.68	1.79E+01	12	65	mg/kg OC	1.5	<1
LDW Dioxin Sampling	LDW-SS509[a]	12/15/09	PCBs (total calc'd)	5.60E-01	7.08		0.13	1	mg/kg DW	4.3	<1
NOAA Site Characterization	WIT290	09/16/97	PCBs (total calc'd)	5.40E-01	1.67	3.23E+01	12	65	mg/kg OC	2.7	<1
EPA Site Inspection	DR035	08/11/98	PCBs (total calc'd)	5.16E-01 J	2.29	2.25E+01	12	65	mg/kg OC	1.9	<1
Ecology SPI	SPI-108	08/11/06	PCBs (total calc'd)	4.40E-01 J	1.55	2.84E+01	12	65	mg/kg OC	2.4	<1
LDWRI-Surface Sediment Round 3	LDW-SS309	10/03/06	PCBs (total calc'd)	3.70E-01	2.02	1.83E+01	12	65	mg/kg OC	1.5	<1
LDWRI-Surface Sediment Round 3	LDW-SS310	10/03/06	PCBs (total calc'd)	3.70E-01	1.63	2.27E+01	12	65	mg/kg OC	1.9	<1
LDWRI-Surface Sediment Round 3	LDW-SS311[a]	10/03/06	PCBs (total calc'd)	3.70E-01	4.36		0.13	1.0	mg/kg DW	2.8	<1
EPA Site Inspection	DR034	08/11/98	PCBs (total calc'd)	3.47E-01 J	1.84	1.89E+01	12	65	mg/kg OC	1.6	<1
EPA Site Inspection	DR031	08/11/98	PCBs (total calc'd)	3.42E-01	2.07	1.65E+01	12	65	mg/kg OC	1.4	<1
NOAA Site Characterization	WIT288	09/15/97	PCBs (total calc'd)	3.40E-01	1.66	2.05E+01	12	65	mg/kg OC	1.7	<1
EPA Site Inspection	DR038	09/02/98	PCBs (total calc'd)	3.36E-01 J	2.62	1.28E+01	12	65	mg/kg OC	1.1	<1
NOAA Site Characterization	WIT283	09/16/97	PCBs (total calc'd)	3.30E-01	1.77	1.86E+01	12	65	mg/kg OC	1.6	<1
NOAA Site Characterization	WIT283	09/16/97	PCBs (total calc'd)	3.23E-01	1.77	1.82E+01	12	65	mg/kg OC	1.5	<1
LDWRI-Surface Sediment Round 2	LDW-SS16	03/08/05	PCBs (total calc'd)	3.20E-01	2.11	1.52E+01	12	65	mg/kg OC	1.3	<1
NOAA Site Characterization	WIT283	09/16/97	PCBs (total calc'd)	3.20E-01	1.77	1.81E+01	12	65	mg/kg OC	1.5	<1
NOAA Site Characterization	WST370	09/18/97	PCBs (total calc'd)	3.00E-01	1.72	1.74E+01	12	65	mg/kg OC	1.5	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
LDWRI-Surface Sediment Round 2	LDW-SS24[a]	03/14/05	PCBs (total calc'd)	2.90E-01	5.99		0.13	1.0	mg/kg DW	2.2	<1
LDWRI-Surface Sediment Round 3	LDW-SS308	10/03/06	PCBs (total calc'd)	2.80E-01	1.86	1.51E+01	12	65	mg/kg OC	1.3	<1
EPA Site Inspection	DR043[a]	08/12/98	PCBs (total calc'd)	2.70E-01	4.48	6.03E+00	0.13	1	mg/kg DW	2.1	<1
EPA Site Inspection	DR044	08/12/98	PCBs (total calc'd)	2.33E-01	2.68	8.69E+00	12	65	mg/kg OC	<1	<1
NOAA Site Characterization	WIT291	09/16/97	PCBs (total calc'd)	2.30E-01	0.6	3.83E+01	12	65	mg/kg OC	3.2	<1
EPA Site Inspection	DR033	08/11/98	PCBs (total calc'd)	2.25E-01 J	1.72	1.31E+01	12	65	mg/kg OC	1.1	<1
EPA Site Inspection	DR041	08/12/98	PCBs (total calc'd)	2.22E-01	2.43	9.14E+00	12	65	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS19	03/08/05	PCBs (total calc'd)	2.20E-01	2.07	1.06E+01	12	65	mg/kg OC	<1	<1
NOAA Site Characterization	WIT287	09/15/97	PCBs (total calc'd)	2.10E-01	1.17	1.79E+01	12	65	mg/kg OC	1.5	<1
Ecology SPI	TRI-015T	08/08/06	PCBs (total calc'd)	2.10E-01 J	2.16	9.72E+00	12	65	mg/kg OC	<1	<1
Puget Sound Sediment Quality/ NOAA Site Characterization	203	06/22/98	PCBs (total calc'd)	2.07E-01	1.5	1.38E+01	12	65	mg/kg OC	1.2	<1
LDWRI-Surface Sediment Round 3	LDW-SS315	10/04/06	PCBs (total calc'd)	1.96E-01	1.74	1.13E+01	12	65	mg/kg OC	<1	<1
Ecology SPI	TRI-016	08/08/06	PCBs (total calc'd)	1.90E-01 J	2.38	7.98E+00	12	65	mg/kg OC	<1	<1
EPA Site Inspection	DR079	08/24/98	PCBs (total calc'd)	1.87E-01 J	2.18	8.58E+00	12	65	mg/kg OC	<1	<1
EPA Site Inspection	DR042[a]	08/12/98	PCBs (total calc'd)	1.82E-01	9.23	1.97E+00	0.13	1	mg/kg DW	1.4	<1
EPA Site Inspection	DR039	08/12/98	PCBs (total calc'd)	1.75E-01	2.43	7.20E+00	12	65	mg/kg OC	<1	<1
EPA Site Inspection	DR080	08/24/98	PCBs (total calc'd)	1.75E-01 J	1.82	9.62E+00	12	65	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS12	01/17/05	PCBs (total calc'd)	1.71E-01 J	1.88	9.10E+00	12	65	mg/kg OC	<1	<1
LDWRI-Benthic	B2a	08/13/04	PCBs (total calc'd)	1.63E-01	1.97	8.27E+00	12	65	mg/kg OC	<1	<1
Ecology SPI	TRI-010	08/08/06	PCBs (total calc'd)	1.59E-01 J	2.2	7.23E+00	12	65	mg/kg OC	<1	<1
EPA Site Inspection	DR047	09/14/98	PCBs (total calc'd)	1.58E-01	1.4	1.13E+01	12	65	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2150-A[a]	04/20/11	PCBs (total calc'd)	1.50E-01	9.22		0.13	1	mg/kg DW	1.2	<1
NOAA Site Characterization	WST371	09/18/97	PCBs (total calc'd)	1.50E-01	2.02	7.43E+00	12	65	mg/kg OC	<1	<1
EPA Site Inspection	DR032	08/11/98	PCBs (total calc'd)	1.40E-01 J	1.79	7.82E+00	12	65	mg/kg OC	<1	<1
EPA Site Inspection	DR070	08/12/98	PCBs (total calc'd)	1.36E-01	1.75	7.77E+00	12	65	mg/kg OC	<1	<1
EPA Site Inspection	DR044	08/12/98	PCBs (total calc'd)	1.31E-01	2.08	6.30E+00	12	65	mg/kg OC	<1	<1
NOAA Site Characterization	WST374	10/14/97	PCBs (total calc'd)	1.30E-01	2.04	6.37E+00	12	65	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS15	01/17/05	PCBs (total calc'd)	1.28E-01 J	1.79	7.15E+00	12	65	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS29	03/14/05	PCBs (total calc'd)	1.23E-01	1.68	7.32E+00	12	65	mg/kg OC	<1	<1
EPA Site Inspection	DR078	08/24/98	PCBs (total calc'd)	1.21E-01 J	2.07	5.85E+00	12	65	mg/kg OC	<1	<1
EPA Site Inspection	DR077	08/24/98	PCBs (total calc'd)	1.20E-01 J	1.61	7.45E+00	12	65	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SSSWCSO-A	04/08/11	PCBs (total calc'd)	1.20E-01	2.69	4.46E+00	12	65	mg/kg OC	<1	<1
NOAA Site Characterization	WST358	11/12/97	PCBs (total calc'd)	1.20E-01	1.98	6.06E+00	12	65	mg/kg OC	<1	<1
NOAA Site Characterization	WST372	10/15/97	PCBs (total calc'd)	1.20E-01	2.55	4.71E+00	12	65	mg/kg OC	<1	<1
EPA Site Inspection	DR069	08/18/98	PCBs (total calc'd)	1.19E-01	1.92	6.20E+00	12	65	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS9	03/14/05	PCBs (total calc'd)	1.19E-01	1.79	6.65E+00	12	65	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS28	01/24/05	PCBs (total calc'd)	1.12E-01	1.22	9.18E+00	12	65	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-2	09/24/97	PCBs (total calc'd)	1.10E-01	2.09	5.26E+00	12	65	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SSSWCSO-U	04/08/11	PCBs (total calc'd)	1.10E-01	1.2	9.17E+00	12	65	mg/kg OC	<1	<1
EPA Site Inspection	DR045	09/14/98	PCBs (total calc'd)	1.07E-01	2.92	3.66E+00	12	65	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	03/06/97	PCBs (total calc'd)	1.02E-01	2.27	4.49E+00	12	65	mg/kg OC	<1	<1
NOAA Site Characterization	WST359	09/18/97	PCBs (total calc'd)	1.00E-01	1.37	7.30E+00	12	65	mg/kg OC	<1	<1
NOAA Site Characterization	WST368	09/16/97	PCBs (total calc'd)	1.00E-01	2.01	4.98E+00	12	65	mg/kg OC	<1	<1
LDWRI-Benthic	C2-2	08/26/04	PCBs (total calc'd)	9.90E-02	1.06	9.34E+00	12	65	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-1	09/24/97	PCBs (total calc'd)	9.80E-02	2.59	3.78E+00	12	65	mg/kg OC	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
KC CSO Water Quality Assessment	WQAKELL	05/01/97	PCBs (total calc'd)	9.80E-02	2.03	4.83E+00	12	65	mg/kg OC	<1	<1
NOAA Site Characterization	WST359	09/18/97	PCBs (total calc'd)	9.66E-02	1.37	7.05E+00	12	65	mg/kg OC	<1	<1
NOAA Site Characterization	WST359	09/18/97	PCBs (total calc'd)	9.50E-02	1.37	6.93E+00	12	65	mg/kg OC	<1	<1
NOAA Site Characterization	WST359	09/18/97	PCBs (total calc'd)	9.40E-02	1.37	6.86E+00	12	65	mg/kg OC	<1	<1
EPA Site Inspection	DR068	08/18/98	PCBs (total calc'd)	9.30E-02 J	2.36	3.94E+00	12	65	mg/kg OC	<1	<1
NOAA Site Characterization	WST368	09/16/97	PCBs (total calc'd)	9.10E-02	2.01	4.53E+00	12	65	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2150-A[a]	04/20/11	PCBs (total calc'd)	9.00E-02	4.42		0.13	1	mg/kg DW	<1	<1
EPA Site Inspection	DR048	08/12/98	PCBs (total calc'd)	8.80E-02	2.03	4.33E+00	12	65	mg/kg OC	<1	<1
EPA Site Inspection	DR037	08/18/98	PCBs (total calc'd)	8.30E-02 J	2.02	4.11E+00	12	65	mg/kg OC	<1	<1
EPA Site Inspection	DR046	08/12/98	PCBs (total calc'd)	8.00E-02	2.26	3.54E+00	12	65	mg/kg OC	<1	<1
EPA Site Inspection	DR066	08/18/98	PCBs (total calc'd)	7.70E-02 J	2.25	3.42E+00	12	65	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS3	03/09/05	PCBs (total calc'd)	7.60E-02	0.723	1.05E+01	12	65	mg/kg OC	<1	<1
NOAA Site Characterization	WST373	10/14/97	PCBs (total calc'd)	7.40E-02	1.49	4.97E+00	12	65	mg/kg OC	<1	<1
NOAA Site Characterization	WST368	09/16/97	PCBs (total calc'd)	7.30E-02	2.01	3.63E+00	12	65	mg/kg OC	<1	<1
NOAA Site Characterization	WST366	09/15/97	PCBs (total calc'd)	7.20E-02	1.23	5.85E+00	12	65	mg/kg OC	<1	<1
Harbor Island RI	K-05	09/27/91	PCBs (total calc'd)	7.19E-02 J	1.6	4.49E+00	12	65	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-2	09/24/97	PCBs (total calc'd)	6.90E-02 J	2.06	3.35E+00	12	65	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2233-D	04/20/11	PCBs (total calc'd)	6.90E-02	0.617	1.12E+01	12	65	mg/kg OC	<1	<1
EPA Site Inspection	DR036	08/12/98	PCBs (total calc'd)	6.60E-02 J	3.37	1.96E+00	12	65	mg/kg OC	<1	<1
NOAA Site Characterization	WST363	09/15/97	PCBs (total calc'd)	6.40E-02	1.72	3.72E+00	12	65	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS313	10/04/06	PCBs (total calc'd)	6.30E-02 J	1.95	3.23E+00	12	65	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-1	09/24/97	PCBs (total calc'd)	6.25E-02 J	2.44	2.56E+00	12	65	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2157-A	03/24/11	PCBs (total calc'd)	6.00E-02	1.81	3.31E+00	12	65	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS23	01/18/05	PCBs (total calc'd)	6.00E-02	1.23	4.88E+00	12	65	mg/kg OC	<1	<1
LDWRI-Benthic	C2-1	08/26/04	PCBs (total calc'd)	5.60E-02	1.82	3.08E+00	12	65	mg/kg OC	<1	<1
LDWRI-Benthic	C3-1	08/27/04	PCBs (total calc'd)	5.20E-02 J	0.93	5.59E+00	12	65	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	03/12/97	PCBs (total calc'd)	5.10E-02	2.09	2.44E+00	12	65	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS14	01/17/05	PCBs (total calc'd)	5.00E-02 J	0.79	6.33E+00	12	65	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2150-A[a]	04/20/11	PCBs (total calc'd)	4.10E-02	5.62		0.13	1	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	WQAKELL	04/03/97	PCBs (total calc'd)	3.80E-02	2.17	1.75E+00	12	65	mg/kg OC	<1	<1
NOAA Site Characterization	WIT292	09/16/97	PCBs (total calc'd)	3.70E-02	1.36	2.72E+00	12	65	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	04/17/97	PCBs (total calc'd)	3.60E-02	2.07	1.74E+00	12	65	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-16	03/28/96	PCBs (total calc'd)	3.59E-02	2.99	1.20E+00	12	65	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS10	01/17/05	PCBs (total calc'd)	3.10E-02	1.63	1.90E+00	12	65	mg/kg OC	<1	<1
NOAA Site Characterization	WST367	09/19/97	PCBs (total calc'd)	2.90E-02	0.67	4.33E+00	12	65	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2147-D	03/14/11	PCBs (total calc'd)	2.80E-02	0.782	3.58E+00	12	65	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2233-U[a]	04/20/11	PCBs (total calc'd)	2.80E-02	0.38		0.13	1	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS33	01/26/05	PCBs (total calc'd)	2.60E-02	1.66	1.57E+00	12	65	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS36	01/24/05	PCBs (total calc'd)	2.40E-02	1.89	1.27E+00	12	65	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2146-A	03/14/11	PCBs (total calc'd)	2.30E-02	1.01	2.28E+00	12	65	mg/kg OC	<1	<1
LDWRI-Benthic	B3a	08/26/04	PCBs (total calc'd)	2.20E-02	1.36	1.62E+00	12	65	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2144-A	03/14/11	PCBs (total calc'd)	2.20E-02	0.849	2.59E+00	12	65	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2232-A	04/20/11	PCBs (total calc'd)	1.70E-02	1.11	1.53E+00	12	65	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2232-U	04/20/11	PCBs (total calc'd)	1.70E-02	1.63	1.04E+00	12	65	mg/kg OC	<1	<1
NOAA Site Characterization	WIT296[a]	09/18/97	PCBs (total calc'd)	1.70E-02	5.05		0.13	1.0	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-3	03/28/96	PCBs (total calc'd)	1.55E-02	2.22	7.00E-01	12	65	mg/kg OC	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
Seaboard Lumber-Phase 2 Investigation	SD-13	03/28/96	PCBs (total calc'd)	1.50E-02	2.64	5.70E-01	12	65	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-19	03/28/96	PCBs (total calc'd)	1.21E-02	2.75	4.40E-01	12	65	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-10	03/28/96	PCBs (total calc'd)	1.18E-02	2.57	4.60E-01	12	65	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2232-D	04/20/11	PCBs (total calc'd)	1.10E-02	0.778	1.41E+00	12	65	mg/kg OC	<1	<1
NOAA Site Characterization	WIT293	09/18/97	PCBs (total calc'd)	1.10E-02	0.79	1.39E+00	12	65	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-9	03/28/96	PCBs (total calc'd)	1.07E-02	1.68	6.39E-01	12	65	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-11	03/28/96	PCBs (total calc'd)	9.99E-03	2.7	3.70E-01	12	65	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-12	03/28/96	PCBs (total calc'd)	9.95E-03	2.43	4.09E-01	12	65	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-1	03/28/96	PCBs (total calc'd)	9.86E-03	3.4	2.90E-01	12	65	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-2	03/28/96	PCBs (total calc'd)	9.73E-03	1.74	5.59E-01	12	65	mg/kg OC	<1	<1
NOAA Site Characterization	WIT295[a]	09/16/97	PCBs (total calc'd)	9.10E-03	0.26		0.13	1.0	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-14	03/28/96	PCBs (total calc'd)	9.06E-03	1.68	5.39E-01	12	65	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-4	03/28/96	PCBs (total calc'd)	8.69E-03	1.85	4.70E-01	12	65	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS306[a]	10/03/06	PCBs (total calc'd)	8.40E-03 J	0.284		0.13	1.0	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-6	03/28/96	PCBs (total calc'd)	8.30E-03	1.79	4.64E-01	12	65	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-6	03/28/96	PCBs (total calc'd)	8.22E-03	1.79	4.59E-01	12	65	mg/kg OC	<1	<1
NOAA Site Characterization	WIT289	09/15/97	PCBs (total calc'd)	7.60E-03	0.91	8.35E-01	12	65	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-5	03/28/96	PCBs (total calc'd)	7.58E-03	2.05	3.70E-01	12	65	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-8	03/28/96	PCBs (total calc'd)	7.11E-03	1.78	3.99E-01	12	65	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-7	03/28/96	PCBs (total calc'd)	7.03E-03	1.76	3.99E-01	12	65	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-17	03/28/96	PCBs (total calc'd)	6.38E-03	2.66	2.40E-01	12	65	mg/kg OC	<1	<1
NOAA Site Characterization	WIT294	09/16/97	PCBs (total calc'd)	6.00E-03	1.13	5.31E-01	12	65	mg/kg OC	<1	<1
NOAA Site Characterization	WIT297[a]	09/19/97	PCBs (total calc'd)	5.20E-03	0.09		0.13	1.0	mg/kg DW	<1	<1
NOAA Site Characterization	WIT299[a]	10/14/97	PCBs (total calc'd)	5.20E-03	0.14	3.71E+00	0.13	1	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-18	03/28/96	PCBs (total calc'd)	4.65E-03	3.11	1.50E-01	12	65	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-20	03/28/96	PCBs (total calc'd)	3.95E-03 J	1.13	3.50E-01	12	65	mg/kg OC	<1	<1
NOAA Site Characterization	WIT298[a]	10/17/97	PCBs (total calc'd)	3.60E-03	0.11	3.27E+00	0.13	1	mg/kg DW	<1	<1
LDWRI-Benthic	C1[a]	08/26/04	PCBs (total calc'd)	3.10E-03 J	0.47		0.13	1.0	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-15	03/28/96	PCBs (total calc'd)	2.62E-03	1.46	1.79E-01	12	65	mg/kg OC	<1	<1
NOAA Site Characterization	WIT290	09/16/97	PCTs (total)	7.60E-01	1.67						
NOAA Site Characterization	WIT282	11/12/97	PCTs (total)	4.30E-02	4.64						
NOAA Site Characterization	WIT283	09/16/97	PCTs (total)	4.10E-02	1.77						
NOAA Site Characterization	WIT286	09/15/97	PCTs (total)	3.50E-02	3.68						
NOAA Site Characterization	WIT283	09/16/97	PCTs (total)	3.24E-02	1.77						
NOAA Site Characterization	WIT288	09/15/97	PCTs (total)	3.20E-02	1.66						
NOAA Site Characterization	WIT283	09/16/97	PCTs (total)	3.10E-02	1.77						
NOAA Site Characterization	WIT283	09/16/97	PCTs (total)	2.80E-02	1.77						
NOAA Site Characterization	WIT291	09/16/97	PCTs (total)	2.70E-02	0.6						
NOAA Site Characterization	WST372	10/15/97	PCTs (total)	2.10E-02	2.55						
NOAA Site Characterization	WST358	11/12/97	PCTs (total)	2.00E-02	1.98						
NOAA Site Characterization	WST359	09/18/97	PCTs (total)	1.90E-02	1.37						
NOAA Site Characterization	WST374	10/14/97	PCTs (total)	1.90E-02	2.04						
NOAA Site Characterization	WIT287	09/15/97	PCTs (total)	1.70E-02	1.17						
NOAA Site Characterization	WST359	09/18/97	PCTs (total)	1.68E-02	1.37						
NOAA Site Characterization	WST359	09/18/97	PCTs (total)	1.60E-02	1.37						

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
NOAA Site Characterization	WST363	09/15/97	PCTs (total)	1.60E-02	1.72						
NOAA Site Characterization	WST368	09/16/97	PCTs (total)	1.60E-02	2.01						
NOAA Site Characterization	WST359	09/18/97	PCTs (total)	1.50E-02	1.37						
NOAA Site Characterization	WST366	09/15/97	PCTs (total)	1.50E-02	1.23						
NOAA Site Characterization	WST371	09/18/97	PCTs (total)	1.50E-02	2.02						
NOAA Site Characterization	WST368	09/16/97	PCTs (total)	1.47E-02	2.01						
NOAA Site Characterization	WST370	09/18/97	PCTs (total)	1.30E-02	1.72						
NOAA Site Characterization	WST373	10/14/97	PCTs (total)	1.30E-02	1.49						
NOAA Site Characterization	WST368	09/16/97	PCTs (total)	1.20E-02	2.01						
NOAA Site Characterization	WIT292	09/16/97	PCTs (total)	5.20E-03 J	1.36						
NOAA Site Characterization	WST367	09/19/97	PCTs (total)	5.10E-03 J	0.67						
NOAA Site Characterization	WIT289	09/15/97	PCTs (total)	3.40E-03 J	0.91						
NOAA Site Characterization	WIT297	09/19/97	PCTs (total)	2.10E-03 J	0.09						
Ecology SPI	TRI-010	08/08/06	Pentachlorophenol	5.80E-02	2.2		0.36	0.69	mg/kg DW	<1	<1
Ecology SPI	TRI-016	08/08/06	Pentachlorophenol	5.50E-02	2.38		0.36	0.69	mg/kg DW	<1	<1
Ecology SPI	SPI-108	08/11/06	Pentachlorophenol	3.20E-02 J	1.55		0.36	0.69	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2149-A	04/20/11	Pentachlorophenol	3.00E-02 J	9.22		0.36	0.69	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2157-A	03/24/11	Pentachlorophenol	8.10E-03 J	1.81		0.36	0.69	mg/kg DW	<1	<1
Puget Sound Sediment Quality/ NOAA Site Characterization	203	06/22/98	Perylene	2.48E-01	1.5	1.65E+01					
LDWRI-Benthic	B2a	08/13/04	Perylene	6.50E-02	1.97	3.30E+00					
LDWRI-Benthic	B1a	08/13/04	Perylene	1.60E-02	1.7	9.41E-01					
LDWRI-Benthic	B3a	08/26/04	Perylene	9.00E-03	1.36	6.62E-01					
EPA Site Inspection	DR038	09/02/98	Phenanthrene	3.60E+00	2.62	1.37E+02	100	480	mg/kg OC	1.4	<1
EPA Site Inspection	DR037	08/18/98	Phenanthrene	3.50E+00	2.02	1.73E+02	100	480	mg/kg OC	1.7	<1
LDWRI-Surface Sediment Round 3	LDW-SS312[a]	10/03/06	Phenanthrene	3.40E+00	4.2		1.5	5.4	mg/kg DW	2.3	<1
EPA Site Inspection	DR044	08/12/98	Phenanthrene	3.00E+00	2.08	1.44E+02	100	480	mg/kg OC	1.4	<1
EPA Site Inspection	DR033	08/11/98	Phenanthrene	2.60E+00	1.72	1.51E+02	100	480	mg/kg OC	1.5	<1
LDW Dioxin Sampling	LDW-SS509[a]	12/15/09	Phenanthrene	2.20E+00	7.08		1.5	5.4	mg/kg DW	1.5	<1
LDW Outfall Sampling	LDW-SSSWCSO-U	04/08/11	Phenanthrene	2.20E+00	1.2	1.83E+02	100	480	mg/kg OC	1.8	<1
LDWRI-Surface Sediment Round 2	LDW-SS24[a]	03/14/05	Phenanthrene	1.90E+00	5.99		1.5	5.4	mg/kg DW	1.3	<1
LDWRI-Surface Sediment Round 1	LDW-SS36	01/24/05	Phenanthrene	1.80E+00	1.89	9.52E+01	100	480	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS9	03/14/05	Phenanthrene	1.40E+00	1.79	7.82E+01	100	480	mg/kg OC	<1	<1
EPA Site Inspection	DR035	08/11/98	Phenanthrene	1.10E+00	2.29	4.80E+01	100	480	mg/kg OC	<1	<1
Terminal 105 Site Assessment	SS1	11/23/93	Phenanthrene	9.60E-01	1.9	5.05E+01	100	480	mg/kg OC	<1	<1
EPA Site Inspection	DR040[a]	08/12/98	Phenanthrene	9.10E-01	4.69	1.94E+01	1.5	5.4	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS311[a]	10/03/06	Phenanthrene	9.00E-01	4.36		1.5	5.4	mg/kg DW	<1	<1
Terminal 105 Site Assessment	SS2	11/17/93	Phenanthrene	8.00E-01	0.98	8.16E+01	100	480	mg/kg OC	<1	<1
EPA Site Inspection	DR031	08/11/98	Phenanthrene	6.30E-01	2.07	3.04E+01	100	480	mg/kg OC	<1	<1
EPA Site Inspection	DR067	08/18/98	Phenanthrene	5.10E-01	0.82	6.22E+01	100	480	mg/kg OC	<1	<1
Ecology SPI	SPI-108	08/11/06	Phenanthrene	4.84E-01	1.55	3.12E+01	100	480	mg/kg OC	<1	<1
LDWRI-Benthic	C2-1	08/26/04	Phenanthrene	4.60E-01	1.82	2.53E+01	100	480	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS310	10/03/06	Phenanthrene	4.30E-01	1.63	2.64E+01	100	480	mg/kg OC	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
LDW Outfall Sampling	LDW-SS2150-A[a]	04/20/11	Phenanthrene	3.70E-01	5.62		1.5	5.4	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS19	03/08/05	Phenanthrene	3.50E-01	2.07	1.69E+01	100	480	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SSSWCSO-A	04/08/11	Phenanthrene	3.50E-01	2.69	1.30E+01	100	480	mg/kg OC	<1	<1
Ecology SPI	TRI-010	08/08/06	Phenanthrene	3.43E-01	2.2	1.56E+01	100	480	mg/kg OC	<1	<1
Ecology SPI	TRI-015T	08/08/06	Phenanthrene	3.34E-01	2.16	1.55E+01	100	480	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS16	03/08/05	Phenanthrene	3.20E-01	2.11	1.52E+01	100	480	mg/kg OC	<1	<1
EPA Site Inspection	DR048	08/12/98	Phenanthrene	2.90E-01	2.03	1.43E+01	100	480	mg/kg OC	<1	<1
EPA Site Inspection	DR034	08/11/98	Phenanthrene	2.70E-01	1.84	1.47E+01	100	480	mg/kg OC	<1	<1
EPA Site Inspection	DR041	08/12/98	Phenanthrene	2.70E-01	2.43	1.11E+01	100	480	mg/kg OC	<1	<1
EPA Site Inspection	DR068	08/18/98	Phenanthrene	2.70E-01	2.36	1.14E+01	100	480	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2157-A	03/24/11	Phenanthrene	2.70E-01	1.81	1.49E+01	100	480	mg/kg OC	<1	<1
EPA Site Inspection	DR066	08/18/98	Phenanthrene	2.60E-01	2.25	1.16E+01	100	480	mg/kg OC	<1	<1
Harbor Island RI	K-05	09/27/91	Phenanthrene	2.60E-01 J	1.6	1.63E+01	100	480	mg/kg OC	<1	<1
EPA Site Inspection	DR039	08/12/98	Phenanthrene	2.40E-01	2.43	9.88E+00	100	480	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2150-A[a]	04/20/11	Phenanthrene	2.40E-01	4.42		1.5	5.4	mg/kg DW	<1	<1
EPA Site Inspection	DR047	09/14/98	Phenanthrene	2.30E-01	1.4	1.64E+01	100	480	mg/kg OC	<1	<1
EPA Site Inspection	DR069	08/18/98	Phenanthrene	2.30E-01	1.92	1.20E+01	100	480	mg/kg OC	<1	<1
EPA Site Inspection	DR077	08/24/98	Phenanthrene	2.30E-01	1.61	1.43E+01	100	480	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS309	10/03/06	Phenanthrene	2.30E-01	2.02	1.14E+01	100	480	mg/kg OC	<1	<1
Puget Sound Sediment Quality/ NOAA Site Characterization	203	06/22/98	Phenanthrene	2.29E-01	1.5	1.53E+01	100	480	mg/kg OC	<1	<1
EPA Site Inspection	DR042[a]	08/12/98	Phenanthrene	2.20E-01	9.23	2.38E+00	1.5	5.4	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2150-A[a]	04/20/11	Phenanthrene	2.10E-01	9.22		1.5	5.4	mg/kg DW	<1	<1
EPA Site Inspection	DR032	08/11/98	Phenanthrene	2.00E-01	1.79	1.12E+01	100	480	mg/kg OC	<1	<1
EPA Site Inspection	DR079	08/24/98	Phenanthrene	2.00E-01	2.18	9.17E+00	100	480	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS308	10/03/06	Phenanthrene	2.00E-01	1.86	1.08E+01	100	480	mg/kg OC	<1	<1
Ecology SPI	TRI-016	08/08/06	Phenanthrene	2.00E-01	2.38	8.40E+00	100	480	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS314	10/04/06	Phenanthrene	1.90E-01	2.81	6.76E+00	100	480	mg/kg OC	<1	<1
EPA Site Inspection	DR080	08/24/98	Phenanthrene	1.80E-01	1.82	9.89E+00	100	480	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS12	01/17/05	Phenanthrene	1.80E-01	1.88	9.57E+00	100	480	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS3	03/09/05	Phenanthrene	1.80E-01	0.723	2.49E+01	100	480	mg/kg OC	<1	<1
EPA Site Inspection	DR070	08/12/98	Phenanthrene	1.70E-01	1.75	9.71E+00	100	480	mg/kg OC	<1	<1
EPA Site Inspection	DR078	08/24/98	Phenanthrene	1.70E-01	2.07	8.21E+00	100	480	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS28	01/24/05	Phenanthrene	1.70E-01	1.22	1.39E+01	100	480	mg/kg OC	<1	<1
EPA Site Inspection	DR046	08/12/98	Phenanthrene	1.60E-01	2.26	7.08E+00	100	480	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS313	10/04/06	Phenanthrene	1.60E-01	1.95	8.21E+00	100	480	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	05/01/97	Phenanthrene	1.60E-01 J	2.03	7.88E+00	100	480	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	03/06/97	Phenanthrene	1.50E-01 J	2.27	6.61E+00	100	480	mg/kg OC	<1	<1
LDWRI-Benthic	B2a	08/13/04	Phenanthrene	1.40E-01	1.97	7.11E+00	100	480	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	03/12/97	Phenanthrene	1.40E-01 J	2.09	6.70E+00	100	480	mg/kg OC	<1	<1
EPA Site Inspection	DR036	08/12/98	Phenanthrene	1.30E-01	3.37	3.86E+00	100	480	mg/kg OC	<1	<1
EPA Site Inspection	DR043[a]	08/12/98	Phenanthrene	1.30E-01	4.48	2.90E+00	1.5	5.4	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	KI-1	09/24/97	Phenanthrene	1.20E-01 J	2.59	4.63E+00	100	480	mg/kg OC	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
LDW Outfall Sampling	LDW-SS2233-D	04/20/11	Phenanthrene	1.20E-01	0.617	1.94E+01	100	480	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-1	09/24/97	Phenanthrene	1.10E-01 J	2.44	4.51E+00	100	480	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-2	09/24/97	Phenanthrene	1.10E-01 J	2.09	5.26E+00	100	480	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	04/03/97	Phenanthrene	1.10E-01 J	2.07	5.31E+00	100	480	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	04/17/97	Phenanthrene	1.10E-01 J	2.17	5.07E+00	100	480	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-2	09/24/97	Phenanthrene	1.02E-01 J	2.06	4.93E+00	100	480	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-1	09/24/97	Phenanthrene	1.00E-01 J	2.29	4.37E+00	100	480	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-3	09/24/97	Phenanthrene	1.00E-01 J	2.24	4.46E+00	100	480	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS15	01/17/05	Phenanthrene	9.80E-02	1.79	5.47E+00	100	480	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-2	09/24/97	Phenanthrene	9.30E-02 J	2.03	4.58E+00	100	480	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-3	09/24/97	Phenanthrene	9.00E-02 J	2.145	4.20E+00	100	480	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS29	03/14/05	Phenanthrene	8.60E-02	1.68	5.12E+00	100	480	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-4	03/28/96	Phenanthrene	8.51E-02	1.85	4.60E+00	100	480	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2147-D	03/14/11	Phenanthrene	8.10E-02	0.782	1.04E+01	100	480	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-3	09/24/97	Phenanthrene	8.00E-02 J	2.05	3.90E+00	100	480	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2232-A	04/20/11	Phenanthrene	7.40E-02	1.11	6.67E+00	100	480	mg/kg OC	<1	<1
EPA Site Inspection	DR044	08/12/98	Phenanthrene	7.00E-02	2.22	3.15E+00	100	480	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS10	01/17/05	Phenanthrene	7.00E-02	1.63	4.29E+00	100	480	mg/kg OC	<1	<1
LDWRI-Benthic	C3-2	08/27/04	Phenanthrene	6.30E-02	1.31	4.81E+00	100	480	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS315	10/04/06	Phenanthrene	6.10E-02 J	1.74	3.51E+00	100	480	mg/kg OC	<1	<1
EPA Site Inspection	DR044	08/12/98	Phenanthrene	6.00E-02	2.68	2.24E+00	100	480	mg/kg OC	<1	<1
EPA Site Inspection	DR045	09/14/98	Phenanthrene	6.00E-02	2.92	2.05E+00	100	480	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-17	03/28/96	Phenanthrene	5.85E-02	2.66	2.20E+00	100	480	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2144-A	03/14/11	Phenanthrene	5.20E-02	0.849	6.12E+00	100	480	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS14	01/17/05	Phenanthrene	5.10E-02	0.79	6.46E+00	100	480	mg/kg OC	<1	<1
LDWRI-Benthic	B1a	08/13/04	Phenanthrene	4.80E-02	1.7	2.82E+00	100	480	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2146-A	03/14/11	Phenanthrene	4.80E-02	1.01	4.75E+00	100	480	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2232-U	04/20/11	Phenanthrene	4.10E-02	1.63	2.52E+00	100	480	mg/kg OC	<1	<1
Terminal 105 Site Assessment	SS3[a]	11/17/93	Phenanthrene	3.60E-02 J	0.13		1.5	5.4	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS34	03/14/05	Phenanthrene	3.40E-02	1.52	2.24E+00	100	480	mg/kg OC	<1	<1
LDWRI-Benthic	B3a	08/26/04	Phenanthrene	2.90E-02	1.36	2.13E+00	100	480	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-5	03/28/96	Phenanthrene	2.87E-02	2.05	1.40E+00	100	480	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-4	09/24/97	Phenanthrene	2.60E-02 J	0.71	3.66E+00	100	480	mg/kg OC	<1	<1
LDWRI-Benthic	C3-1	08/27/04	Phenanthrene	2.50E-02	0.93	2.69E+00	100	480	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-20	03/28/96	Phenanthrene	2.49E-02	1.13	2.20E+00	100	480	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-3	03/28/96	Phenanthrene	2.44E-02	2.22	1.10E+00	100	480	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-16	03/28/96	Phenanthrene	2.39E-02	2.99	8.00E-01	100	480	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS23	01/18/05	Phenanthrene	2.30E-02	1.23	1.87E+00	100	480	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS33	01/26/05	Phenanthrene	2.20E-02	1.66	1.33E+00	100	480	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-4	09/24/97	Phenanthrene	1.98E-02 J	0.81	2.44E+00	100	480	mg/kg OC	<1	<1
LDWRI-Benthic	C1[a]	08/26/04	Phenanthrene	1.80E-02	0.47		1.5	5.4	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2233-U[a]	04/20/11	Phenanthrene	1.80E-02 J	0.38		1.5	5.4	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-7	03/28/96	Phenanthrene	1.67E-02	1.76	9.50E-01	100	480	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-18	03/28/96	Phenanthrene	1.65E-02	3.11	5.30E-01	100	480	mg/kg OC	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
Seaboard Lumber-Phase 2 Investigation	SD-10	03/28/96	Phenanthrene	1.54E-02	2.57	6.00E-01	100	480	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-1	03/28/96	Phenanthrene	1.53E-02	3.4	4.50E-01	100	480	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-13	03/28/96	Phenanthrene	1.50E-02	2.64	5.70E-01	100	480	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-11	03/28/96	Phenanthrene	1.46E-02	2.7	5.40E-01	100	480	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-12	03/28/96	Phenanthrene	1.41E-02	2.43	5.80E-01	100	480	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-2	03/28/96	Phenanthrene	1.39E-02	1.74	8.00E-01	100	480	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-9	03/28/96	Phenanthrene	1.29E-02	1.68	7.70E-01	100	480	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-8	03/28/96	Phenanthrene	1.28E-02	1.78	7.20E-01	100	480	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2232-D	04/20/11	Phenanthrene	1.10E-02 J	0.778	1.41E+00	100	480	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-6	03/28/96	Phenanthrene	1.10E-02	1.79	6.15E-01	100	480	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-6	03/28/96	Phenanthrene	1.09E-02	1.79	6.09E-01	100	480	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-15	03/28/96	Phenanthrene	1.07E-02	1.46	7.29E-01	100	480	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-19	03/28/96	Phenanthrene	9.90E-03	2.75	3.60E-01	100	480	mg/kg OC	<1	<1
LDWRI-Benthic	C2-2	08/26/04	Phenanthrene	7.90E-03	1.06	7.45E-01	100	480	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-14	03/28/96	Phenanthrene	7.05E-03	1.68	4.20E-01	100	480	mg/kg OC	<1	<1
Harbor Island RI	K-05	09/27/91	Phenol	2.00E+00 J	1.6	1.25E+02	0.42	1.2	mg/kg DW	4.8	1.7
EPA Site Inspection	DR047	09/14/98	Phenol	7.40E-01	1.4	5.29E+01	0.42	1.2	mg/kg DW	1.8	<1
LDWRI-Benthic	C1	08/26/04	Phenol	6.00E-01	0.47		0.42	1.2	mg/kg DW	1.4	<1
Ecology SPI	TRI-016	08/08/06	Phenol	5.73E-01	2.38	2.41E+01	0.42	1.2	mg/kg DW	1.4	<1
LDWRI-Benthic	C2-1	08/26/04	Phenol	4.50E-01	1.82	2.47E+01	0.42	1.2	mg/kg DW	1.1	<1
EPA Site Inspection	DR045	09/14/98	Phenol	3.10E-01	2.92	1.06E+01	0.42	1.2	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-10	03/28/96	Phenol	3.00E-01	2.57	1.17E+01	0.42	1.2	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-8	03/28/96	Phenol	3.00E-01	1.78	1.69E+01	0.42	1.2	mg/kg DW	<1	<1
LDWRI-Benthic	C2-2	08/26/04	Phenol	2.90E-01	1.06	2.74E+01	0.42	1.2	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-3	03/28/96	Phenol	2.90E-01	2.22	1.31E+01	0.42	1.2	mg/kg DW	<1	<1
EPA Site Inspection	DR033	08/11/98	Phenol	2.50E-01	1.72	1.45E+01	0.42	1.2	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS16	03/08/05	Phenol	2.40E-01	2.11	1.14E+01	0.42	1.2	mg/kg DW	<1	<1
LDWRI-Benthic	B3a	08/26/04	Phenol	2.20E-01	1.36	1.62E+01	0.42	1.2	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-7	03/28/96	Phenol	2.20E-01	1.76	1.25E+01	0.42	1.2	mg/kg DW	<1	<1
Ecology SPI	SPI-108	08/11/06	Phenol	2.11E-01	1.55	1.36E+01	0.42	1.2	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-15	03/28/96	Phenol	2.10E-01	1.46	1.44E+01	0.42	1.2	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS19	03/08/05	Phenol	1.80E-01	2.07	8.70E+00	0.42	1.2	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-16	03/28/96	Phenol	1.40E-01	2.99	4.68E+00	0.42	1.2	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2149-A	04/20/11	Phenol	1.20E-01	9.22		0.42	1.2	mg/kg DW	<1	<1
EPA Site Inspection	DR041	08/12/98	Phenol	9.00E-02	2.43	3.70E+00	0.42	1.2	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS315	10/04/06	Phenol	8.40E-02	1.74	4.83E+00	0.42	1.2	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-1	03/28/96	Phenol	8.20E-02	3.4	2.41E+00	0.42	1.2	mg/kg DW	<1	<1
EPA Site Inspection	DR032	08/11/98	Phenol	8.00E-02	1.79	4.47E+00	0.42	1.2	mg/kg DW	<1	<1
LDWRI-Benthic	B1a	08/13/04	Phenol	7.80E-02	1.7	4.59E+00	0.42	1.2	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-14	03/28/96	Phenol	7.60E-02	1.68	4.52E+00	0.42	1.2	mg/kg DW	<1	<1
EPA Site Inspection	DR077	08/24/98	Phenol	7.00E-02	1.61	4.35E+00	0.42	1.2	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SSSWCSO-A	04/08/11	Phenol	6.40E-02	2.69	2.38E+00	0.42	1.2	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SSSWCSO-U	04/08/11	Phenol	6.20E-02	1.2	5.17E+00	0.42	1.2	mg/kg DW	<1	<1
EPA Site Inspection	DR038	09/02/98	Phenol	6.00E-02	2.62	2.29E+00	0.42	1.2	mg/kg DW	<1	<1
EPA Site Inspection	DR068	08/18/98	Phenol	6.00E-02	2.36	2.54E+00	0.42	1.2	mg/kg DW	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
EPA Site Inspection	DR031	08/11/98	Phenol	5.00E-02	2.07	2.42E+00	0.42	1.2	mg/kg DW	<1	<1
EPA Site Inspection	DR039	08/12/98	Phenol	5.00E-02	2.43	2.06E+00	0.42	1.2	mg/kg DW	<1	<1
EPA Site Inspection	DR048	08/12/98	Phenol	5.00E-02	2.03	2.46E+00	0.42	1.2	mg/kg DW	<1	<1
EPA Site Inspection	DR070	08/12/98	Phenol	5.00E-02	1.75	2.86E+00	0.42	1.2	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-2	03/28/96	Phenol	4.90E-02	1.74	2.82E+00	0.42	1.2	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SSC1	03/15/05	Phenol	4.80E-02	0.625	7.68E+00	0.42	1.2	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-18	03/28/96	Phenol	4.60E-02	3.11	1.48E+00	0.42	1.2	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-17	03/28/96	Phenol	4.50E-02	2.66	1.69E+00	0.42	1.2	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2157-A	03/24/11	Phenol	4.20E-02	1.81	2.32E+00	0.42	1.2	mg/kg DW	<1	<1
LDWRI-Benthic	C3-1	08/27/04	Phenol	4.00E-02 J	0.93	4.30E+00	0.42	1.2	mg/kg DW	<1	<1
EPA Site Inspection	DR035	08/11/98	Phenol	4.00E-02	2.29	1.75E+00	0.42	1.2	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-5	03/28/96	Phenol	4.00E-02	2.05	1.95E+00	0.42	1.2	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-12	03/28/96	Phenol	3.80E-02	2.43	1.56E+00	0.42	1.2	mg/kg DW	<1	<1
LDWRI-Benthic	B2a	08/13/04	Phenol	3.40E-02	1.97	1.73E+00	0.42	1.2	mg/kg DW	<1	<1
EPA Site Inspection	DR034	08/11/98	Phenol	3.00E-02	1.84	1.63E+00	0.42	1.2	mg/kg DW	<1	<1
EPA Site Inspection	DR040	08/12/98	Phenol	3.00E-02	4.69		0.42	1.2	mg/kg DW	<1	<1
EPA Site Inspection	DR080	08/24/98	Phenol	3.00E-02	1.82	1.65E+00	0.42	1.2	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-6	03/28/96	Phenol	2.90E-02	1.79	1.62E+00	0.42	1.2	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-6	03/28/96	Phenol	2.90E-02	1.79	1.62E+00	0.42	1.2	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS12	01/17/05	Phenol	2.50E-02	1.88	1.33E+00	0.42	1.2	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS10	01/17/05	Phenol	2.40E-02	1.63	1.47E+00	0.42	1.2	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS3	03/09/05	Phenol	2.10E-02	0.723	2.90E+00	0.42	1.2	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2232-U	04/20/11	Phenol	2.00E-02	1.63	1.23E+00	0.42	1.2	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2148-A	04/20/11	Phenol	1.90E-02	5.62		0.42	1.2	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2232-A	04/20/11	Phenol	1.60E-02 J	1.11	1.44E+00	0.42	1.2	mg/kg DW	<1	<1
EPA Site Inspection	DR044	08/12/98	Pyrene	1.60E+01	2.08	7.69E+02	1,000	1,400	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS312[a]	10/03/06	Pyrene	4.80E+00	4.2		2.6	3.3	mg/kg DW	1.8	1.5
EPA Site Inspection	DR038	09/02/98	Pyrene	4.60E+00	2.62	1.76E+02	1,000	1,400	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS24[a]	03/14/05	Pyrene	4.40E+00	5.99		2.6	3.3	mg/kg DW	1.7	1.3
LDW Dioxin Sampling	LDW-SS509[a]	12/15/09	Pyrene	4.00E+00	7.08		2.6	3.3	mg/kg DW	1.5	1.2
EPA Site Inspection	DR047	09/14/98	Pyrene	3.50E+00	1.4	2.50E+02	1,000	1,400	mg/kg OC	<1	<1
EPA Site Inspection	DR033	08/11/98	Pyrene	3.30E+00	1.72	1.92E+02	1,000	1,400	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS311[a]	10/03/06	Pyrene	2.80E+00	4.36		2.6	3.3	mg/kg DW	1.1	<1
EPA Site Inspection	DR037	08/18/98	Pyrene	2.20E+00	2.02	1.09E+02	1,000	1,400	mg/kg OC	<1	<1
EPA Site Inspection	DR040	08/12/98	Pyrene	2.10E+00	4.69	4.48E+01	2.6	3.3	mg/kg DW	<1	<1
EPA Site Inspection	DR040[a]	08/12/98	Pyrene	2.10E+00	4.69		2.6	3.3	mg/kg DW	<1	<1
EPA Site Inspection	DR035	08/11/98	Pyrene	1.80E+00	2.29	7.86E+01	1,000	1,400	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SSSWCSO-U	04/08/11	Pyrene	1.80E+00 J	1.2	1.50E+02	1,000	1,400	mg/kg OC	<1	<1
Terminal 105 Site Assessment	SS1	11/23/93	Pyrene	1.80E+00	1.9	9.47E+01	1,000	1,400	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2150-A[a]	04/20/11	Pyrene	1.70E+00	5.62		2.6	3.3	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS36	01/24/05	Pyrene	1.70E+00	1.89	8.99E+01	1,000	1,400	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS9	03/14/05	Pyrene	1.60E+00	1.79	8.94E+01	1,000	1,400	mg/kg OC	<1	<1
EPA Site Inspection	DR031	08/11/98	Pyrene	1.20E+00	2.07	5.80E+01	1,000	1,400	mg/kg OC	<1	<1
EPA Site Inspection	DR048	08/12/98	Pyrene	1.20E+00	2.03	5.91E+01	1,000	1,400	mg/kg OC	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
EPA Site Inspection	DR077	08/24/98	Pyrene	9.20E-01	1.61	5.71E+01	1,000	1,400	mg/kg OC	<1	<1
EPA Site Inspection	DR034	08/11/98	Pyrene	7.80E-01	1.84	4.24E+01	1,000	1,400	mg/kg OC	<1	<1
Terminal 105 Site Assessment	SS2	11/17/93	Pyrene	7.70E-01	0.98	7.86E+01	1,000	1,400	mg/kg OC	<1	<1
EPA Site Inspection	DR032	08/11/98	Pyrene	6.90E-01	1.79	3.85E+01	1,000	1,400	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS16	03/08/05	Pyrene	6.80E-01	2.11	3.22E+01	1,000	1,400	mg/kg OC	<1	<1
EPA Site Inspection	DR079	08/24/98	Pyrene	6.70E-01	2.18	3.07E+01	1,000	1,400	mg/kg OC	<1	<1
Ecology SPI	SPI-108	08/11/06	Pyrene	6.68E-01	1.55	4.31E+01	1,000	1,400	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS19	03/08/05	Pyrene	6.60E-01	2.07	3.19E+01	1,000	1,400	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SSSWCSO-A	04/08/11	Pyrene	6.60E-01	2.69	2.45E+01	1,000	1,400	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS310	10/03/06	Pyrene	6.50E-01	1.63	3.99E+01	1,000	1,400	mg/kg OC	<1	<1
Ecology SPI	TRI-015T	08/08/06	Pyrene	6.39E-01	2.16	2.96E+01	1,000	1,400	mg/kg OC	<1	<1
EPA Site Inspection	DR041	08/12/98	Pyrene	6.30E-01	2.43	2.59E+01	1,000	1,400	mg/kg OC	<1	<1
EPA Site Inspection	DR068	08/18/98	Pyrene	6.20E-01	2.36	2.63E+01	1,000	1,400	mg/kg OC	<1	<1
EPA Site Inspection	DR078	08/24/98	Pyrene	6.10E-01	2.07	2.95E+01	1,000	1,400	mg/kg OC	<1	<1
Ecology SPI	TRI-010	08/08/06	Pyrene	6.09E-01	2.2	2.77E+01	1,000	1,400	mg/kg OC	<1	<1
EPA Site Inspection	DR066	08/18/98	Pyrene	6.00E-01	2.25	2.67E+01	1,000	1,400	mg/kg OC	<1	<1
EPA Site Inspection	DR042[a]	08/12/98	Pyrene	5.80E-01	9.23	6.28E+00	2.6	3.3	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2157-A	03/24/11	Pyrene	5.80E-01 J	1.81	3.20E+01	1,000	1,400	mg/kg OC	<1	<1
Puget Sound Sediment Quality/ NOAA Site Characterization	203	06/22/98	Pyrene	5.70E-01	1.5	3.80E+01	1,000	1,400	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS308	10/03/06	Pyrene	5.50E-01	1.86	2.96E+01	1,000	1,400	mg/kg OC	<1	<1
EPA Site Inspection	DR039	08/12/98	Pyrene	5.40E-01	2.43	2.22E+01	1,000	1,400	mg/kg OC	<1	<1
EPA Site Inspection	DR069	08/18/98	Pyrene	5.30E-01	1.92	2.76E+01	1,000	1,400	mg/kg OC	<1	<1
EPA Site Inspection	DR046	08/12/98	Pyrene	5.20E-01	2.26	2.30E+01	1,000	1,400	mg/kg OC	<1	<1
EPA Site Inspection	DR080	08/24/98	Pyrene	5.10E-01	1.82	2.80E+01	1,000	1,400	mg/kg OC	<1	<1
Harbor Island RI	K-05	09/27/91	Pyrene	5.00E-01 J	1.6	3.13E+01	1,000	1,400	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS309	10/03/06	Pyrene	5.00E-01	2.02	2.48E+01	1,000	1,400	mg/kg OC	<1	<1
EPA Site Inspection	DR067	08/18/98	Pyrene	4.70E-01	0.82	5.73E+01	1,000	1,400	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2150-A[a]	04/20/11	Pyrene	4.60E-01	4.42		2.6	3.3	mg/kg DW	<1	<1
EPA Site Inspection	DR070	08/12/98	Pyrene	4.40E-01	1.75	2.51E+01	1,000	1,400	mg/kg OC	<1	<1
Ecology SPI	TRI-016	08/08/06	Pyrene	4.28E-01	2.38	1.80E+01	1,000	1,400	mg/kg OC	<1	<1
LDWRI-Benthic	C2-1	08/26/04	Pyrene	4.20E-01	1.82	2.31E+01	1,000	1,400	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2150-A[a]	04/20/11	Pyrene	4.00E-01	9.22		2.6	3.3	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS28	01/24/05	Pyrene	3.70E-01	1.22	3.03E+01	1,000	1,400	mg/kg OC	<1	<1
EPA Site Inspection	DR043[a]	08/12/98	Pyrene	3.50E-01	4.48	7.81E+00	2.6	3.3	mg/kg DW	<1	<1
EPA Site Inspection	DR044	08/12/98	Pyrene	3.50E-01	2.22	1.58E+01	1,000	1,400	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	05/01/97	Pyrene	3.50E-01 J	2.03	1.72E+01	1,000	1,400	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2232-U	04/20/11	Pyrene	3.30E-01	1.63	2.02E+01	1,000	1,400	mg/kg OC	<1	<1
LDWRI-Benthic	B2a	08/13/04	Pyrene	3.20E-01	1.97	1.62E+01	1,000	1,400	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	03/06/97	Pyrene	3.10E-01 J	2.27	1.37E+01	1,000	1,400	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS3	03/09/05	Pyrene	2.90E-01	0.723	4.01E+01	1,000	1,400	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	03/12/97	Pyrene	2.90E-01 J	2.09	1.39E+01	1,000	1,400	mg/kg OC	<1	<1
EPA Site Inspection	DR036	08/12/98	Pyrene	2.80E-01	3.37	8.31E+00	1,000	1,400	mg/kg OC	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
LDWRI-Surface Sediment Round 1	LDW-SS12	01/17/05	Pyrene	2.80E-01	1.88	1.49E+01	1,000	1,400	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-2	09/24/97	Pyrene	2.70E-01 J	2.09	1.29E+01	1,000	1,400	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2233-D	04/20/11	Pyrene	2.70E-01	0.617	4.38E+01	1,000	1,400	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS314	10/04/06	Pyrene	2.70E-01	2.81	9.61E+00	1,000	1,400	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	04/17/97	Pyrene	2.60E-01 J	2.07	1.26E+01	1,000	1,400	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS313	10/04/06	Pyrene	2.50E-01	1.95	1.28E+01	1,000	1,400	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-1	09/24/97	Pyrene	2.40E-01 J	2.59	9.27E+00	1,000	1,400	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	04/03/97	Pyrene	2.40E-01 J	2.17	1.11E+01	1,000	1,400	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-1	09/24/97	Pyrene	2.35E-01 J	2.44	9.63E+00	1,000	1,400	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-1	09/24/97	Pyrene	2.30E-01 J	2.29	1.00E+01	1,000	1,400	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-2	09/24/97	Pyrene	2.20E-01 J	2.06	1.07E+01	1,000	1,400	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-16	03/28/96	Pyrene	1.82E-01 J	2.99	6.10E+00	1,000	1,400	mg/kg OC	<1	<1
EPA Site Inspection	DR045	09/14/98	Pyrene	1.70E-01	2.92	5.82E+00	1,000	1,400	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-2	09/24/97	Pyrene	1.70E-01 J	2.03	8.37E+00	1,000	1,400	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS29	03/14/05	Pyrene	1.70E-01	1.68	1.01E+01	1,000	1,400	mg/kg OC	<1	<1
EPA Site Inspection	DR044	08/12/98	Pyrene	1.60E-01	2.68	5.97E+00	1,000	1,400	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS15	01/17/05	Pyrene	1.60E-01	1.79	8.94E+00	1,000	1,400	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-18	03/28/96	Pyrene	1.52E-01	3.11	4.90E+00	1,000	1,400	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-3	09/24/97	Pyrene	1.50E-01 J	2.24	6.70E+00	1,000	1,400	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS10	01/17/05	Pyrene	1.50E-01	1.63	9.20E+00	1,000	1,400	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2232-A	04/20/11	Pyrene	1.50E-01	1.11	1.35E+01	1,000	1,400	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS315	10/04/06	Pyrene	1.50E-01	1.74	8.62E+00	1,000	1,400	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-3	09/24/97	Pyrene	1.45E-01 J	2.145	6.76E+00	1,000	1,400	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-17	03/28/96	Pyrene	1.44E-01	2.66	5.40E+00	1,000	1,400	mg/kg OC	<1	<1
LDWRI-Benthic	B1a	08/13/04	Pyrene	1.40E-01	1.7	8.24E+00	1,000	1,400	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-3	09/24/97	Pyrene	1.40E-01 J	2.05	6.83E+00	1,000	1,400	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2144-A	03/14/11	Pyrene	1.40E-01	0.849	1.65E+01	1,000	1,400	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2147-D	03/14/11	Pyrene	1.40E-01	0.782	1.79E+01	1,000	1,400	mg/kg OC	<1	<1
LDWRI-Benthic	C3-2	08/27/04	Pyrene	1.30E-01	1.31	9.92E+00	1,000	1,400	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-4	03/28/96	Pyrene	1.17E-01	1.85	6.30E+00	1,000	1,400	mg/kg OC	<1	<1
LDWRI-Benthic	C3-1	08/27/04	Pyrene	1.10E-01	0.93	1.18E+01	1,000	1,400	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS14	01/17/05	Pyrene	1.10E-01	0.79	1.39E+01	1,000	1,400	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS34	03/14/05	Pyrene	1.10E-01	1.52	7.24E+00	1,000	1,400	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS33	01/26/05	Pyrene	9.70E-02	1.66	5.84E+00	1,000	1,400	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2146-A	03/14/11	Pyrene	9.10E-02	1.01	9.01E+00	1,000	1,400	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-3	03/28/96	Pyrene	7.77E-02	2.22	3.50E+00	1,000	1,400	mg/kg OC	<1	<1
Terminal 105 Site Assessment	SS3[a]	11/17/93	Pyrene	7.40E-02 J	0.13		2.6	3.3	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-10	03/28/96	Pyrene	5.65E-02	2.57	2.20E+00	1,000	1,400	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-20	03/28/96	Pyrene	5.20E-02	1.13	4.60E+00	1,000	1,400	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-5	03/28/96	Pyrene	5.13E-02	2.05	2.50E+00	1,000	1,400	mg/kg OC	<1	<1
LDWRI-Benthic	B3a	08/26/04	Pyrene	4.80E-02	1.36	3.53E+00	1,000	1,400	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-4	09/24/97	Pyrene	4.80E-02 J	0.71	6.76E+00	1,000	1,400	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-13	03/28/96	Pyrene	4.75E-02	2.64	1.80E+00	1,000	1,400	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-4	09/24/97	Pyrene	4.65E-02 J	0.81	5.74E+00	1,000	1,400	mg/kg OC	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
KC CSO Water Quality Assessment	KI-4	09/24/97	Pyrene	4.50E-02 J	0.91	4.95E+00	1,000	1,400	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-12	03/28/96	Pyrene	4.37E-02	2.43	1.80E+00	1,000	1,400	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-11	03/28/96	Pyrene	4.05E-02	2.7	1.50E+00	1,000	1,400	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-15	03/28/96	Pyrene	3.94E-02	1.46	2.70E+00	1,000	1,400	mg/kg OC	<1	<1
LDWRI-Benthic	C1[a]	08/26/04	Pyrene	3.80E-02	0.47		2.6	3.3	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-14	03/28/96	Pyrene	3.70E-02	1.68	2.20E+00	1,000	1,400	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2233-U[a]	04/20/11	Pyrene	3.60E-02	0.38		2.6	3.3	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-1	03/28/96	Pyrene	3.40E-02	3.4	1.00E+00	1,000	1,400	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-2	03/28/96	Pyrene	3.31E-02	1.74	1.90E+00	1,000	1,400	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-7	03/28/96	Pyrene	2.99E-02	1.76	1.70E+00	1,000	1,400	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS23	01/18/05	Pyrene	2.80E-02	1.23	2.28E+00	1,000	1,400	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2232-D	04/20/11	Pyrene	2.50E-02	0.778	3.21E+00	1,000	1,400	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-8	03/28/96	Pyrene	2.49E-02	1.78	1.40E+00	1,000	1,400	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-19	03/28/96	Pyrene	2.37E-02	2.75	8.60E-01	1,000	1,400	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-9	03/28/96	Pyrene	2.35E-02	1.68	1.40E+00	1,000	1,400	mg/kg OC	<1	<1
LDWRI-Benthic	C2-2	08/26/04	Pyrene	2.30E-02	1.06	2.17E+00	1,000	1,400	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-6	03/28/96	Pyrene	2.15E-02	1.79	1.20E+00	1,000	1,400	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-6	03/28/96	Pyrene	2.10E-02	1.79	1.17E+00	1,000	1,400	mg/kg OC	<1	<1
Ecology SPI	TRI-015T	08/08/06	Retene	8.90E-02	2.16						
Ecology SPI	TRI-010	08/08/06	Retene	8.00E-02	2.2						
Puget Sound Sediment Quality/ NOAA Site Characterization	203	06/22/98	Retene	6.30E-02	1.5						
Ecology SPI	TRI-016	08/08/06	Retene	6.00E-02	2.38						
Ecology SPI	SPI-108	08/11/06	Retene	5.90E-02	1.55						
EPA Site Inspection	DR038	09/02/98	Selenium	2.70E+01	2.62						
EPA Site Inspection	DR078	08/24/98	Selenium	1.10E+01	2.07						
EPA Site Inspection	DR079	08/24/98	Selenium	1.10E+01	2.18						
EPA Site Inspection	DR077	08/24/98	Selenium	1.00E+01	1.61						
EPA Site Inspection	DR080	08/24/98	Selenium	1.00E+01	1.82						
EPA Site Inspection	DR068	08/18/98	Selenium	8.00E+00	2.36						
EPA Site Inspection	DR037	08/18/98	Selenium	7.00E+00	2.02						
EPA Site Inspection	DR066	08/18/98	Selenium	6.00E+00	2.25						
EPA Site Inspection	DR067	08/18/98	Selenium	4.00E+00	0.82						
EPA Site Inspection	DR076	08/24/98	Selenium	4.00E+00	0.1						
EPA Site Inspection	DR042	08/12/98	Selenium	1.00E+00	9.23						
EPA Site Inspection	DR044	08/12/98	Selenium	1.00E+00 J	2.22						
LDWRI-Benthic	B2a	08/13/04	Selenium	9.00E-01 J	1.97						
EPA Site Inspection	DR035	08/11/98	Selenium	9.00E-01 J							
EPA Site Inspection	DR040	08/12/98	Selenium	9.00E-01 J	4.69						
EPA Site Inspection	DR033	08/11/98	Selenium	8.00E-01 J							
EPA Site Inspection	DR034	08/11/98	Selenium	8.00E-01 J							
EPA Site Inspection	DR039	08/12/98	Selenium	8.00E-01 J							
EPA Site Inspection	DR044	08/12/98	Selenium	8.00E-01 J	2.68						
EPA Site Inspection	DR046	08/12/98	Selenium	8.00E-01 J	2.26						
EPA Site Inspection	DR048	08/12/98	Selenium	8.00E-01 J	2.03						

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
LDWRI-Benthic	B3a	08/26/04	Selenium	7.00E-01 J	1.36						
EPA Site Inspection	DR041	08/12/98	Selenium	7.00E-01 J	2.43						
EPA Site Inspection	DR043	08/12/98	Selenium	7.00E-01 J	4.48						
EPA Site Inspection	DR044	08/12/98	Selenium	7.00E-01 J	2.08						
LDWRI-Benthic	C2-1	08/26/04	Selenium	6.00E-01 J	1.82						
EPA Site Inspection	DR031	08/11/98	Selenium	6.00E-01 J	2.07						
EPA Site Inspection	DR032	08/11/98	Selenium	6.00E-01 J							
EPA Site Inspection	DR069	08/18/98	Selenium	6.00E-01 J							
EPA Site Inspection	DR070	08/12/98	Selenium	6.00E-01 J	1.75						
Puget Sound Sediment Quality/ NOAA Site Characterization	203	06/22/98	Selenium	4.50E-01	1.5						
LDWRI-Benthic	C1	08/26/04	Selenium	4.00E-01	0.47						
LDWRI-Benthic	C2-2	08/26/04	Selenium	4.00E-01 J	1.06						
LDWRI-Benthic	C3-1	08/27/04	Selenium	4.00E-01 J	0.93						
EPA Site Inspection	DR036	08/12/98	Selenium	4.00E-01 J							
LDWRI-Benthic	C3-2	08/27/04	Selenium	3.00E-01 J	1.31						
LDWRI-Benthic	B1a	08/13/04	Selenium	2.00E-01 J	1.7						
EPA Site Inspection	DR044	08/12/98	Silver	1.67E+00	2.22		6.1	6.1	mg/kg DW	<1	<1
EPA Site Inspection	DR044	08/12/98	Silver	9.40E-01	2.68		6.1	6.1	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-11	03/28/96	Silver	9.00E-01	2.7		6.1	6.1	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-12	03/28/96	Silver	9.00E-01	2.43		6.1	6.1	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-13	03/28/96	Silver	9.00E-01	2.64		6.1	6.1	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-5	03/28/96	Silver	8.00E-01	2.05		6.1	6.1	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-9	03/28/96	Silver	8.00E-01	1.68		6.1	6.1	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS10	01/17/05	Silver	7.00E-01	1.63		6.1	6.1	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS16	03/08/05	Silver	7.00E-01	2.11		6.1	6.1	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-1	03/28/96	Silver	7.00E-01	3.4		6.1	6.1	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-17	03/28/96	Silver	7.00E-01	2.66		6.1	6.1	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-3	03/28/96	Silver	7.00E-01	2.22		6.1	6.1	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-4	03/28/96	Silver	7.00E-01	1.85		6.1	6.1	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-7	03/28/96	Silver	7.00E-01	1.76		6.1	6.1	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-8	03/28/96	Silver	7.00E-01	1.78		6.1	6.1	mg/kg DW	<1	<1
EPA Site Inspection	DR035	08/11/98	Silver	6.60E-01	2.29		6.1	6.1	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS15	01/17/05	Silver	6.00E-01	1.79		6.1	6.1	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-14	03/28/96	Silver	6.00E-01	1.68		6.1	6.1	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	WQAKELL	03/12/97	Silver	6.00E-01	2.05		6.1	6.1	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	WQAKELL	05/08/97	Silver	6.00E-01	2.09		6.1	6.1	mg/kg DW	<1	<1
Ecology SPI	TRI-016	08/08/06	Silver	5.30E-01	2.38		6.1	6.1	mg/kg DW	<1	<1
Ecology SPI	TRI-015T	08/08/06	Silver	5.20E-01	2.16		6.1	6.1	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS28	01/24/05	Silver	5.00E-01	1.22		6.1	6.1	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS308	10/03/06	Silver	5.00E-01	1.86		6.1	6.1	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS309	10/03/06	Silver	5.00E-01	2.02		6.1	6.1	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS310	10/03/06	Silver	5.00E-01	1.63		6.1	6.1	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS315	10/04/06	Silver	5.00E-01 J	1.74		6.1	6.1	mg/kg DW	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
Ecology SPI	TRI-010	08/08/06	Silver	5.00E-01	2.2		6.1	6.1	mg/kg DW	<1	<1
EPA Site Inspection	DR042	08/12/98	Silver	4.70E-01	9.23		6.1	6.1	mg/kg DW	<1	<1
EPA Site Inspection	DR077	08/24/98	Silver	4.50E-01	1.61		6.1	6.1	mg/kg DW	<1	<1
EPA Site Inspection	DR038	09/02/98	Silver	4.40E-01	2.62		6.1	6.1	mg/kg DW	<1	<1
EPA Site Inspection	DR079	08/24/98	Silver	4.40E-01	2.18		6.1	6.1	mg/kg DW	<1	<1
EPA Site Inspection	DR034	08/11/98	Silver	4.00E-01	1.84		6.1	6.1	mg/kg DW	<1	<1
EPA Site Inspection	DR047	09/14/98	Silver	4.00E-01	1.4		6.1	6.1	mg/kg DW	<1	<1
EPA Site Inspection	DR068	08/18/98	Silver	4.00E-01	2.36		6.1	6.1	mg/kg DW	<1	<1
EPA Site Inspection	DR078	08/24/98	Silver	4.00E-01	2.07		6.1	6.1	mg/kg DW	<1	<1
Puget Sound Sediment Quality/ NOAA Site Characterization	203	06/22/98	Silver	3.80E-01	1.5		6.1	6.1	mg/kg DW	<1	<1
EPA Site Inspection	DR041	08/12/98	Silver	3.80E-01	2.43		6.1	6.1	mg/kg DW	<1	<1
EPA Site Inspection	DR043	08/12/98	Silver	3.80E-01	4.48		6.1	6.1	mg/kg DW	<1	<1
EPA Site Inspection	DR039	08/12/98	Silver	3.70E-01	2.43		6.1	6.1	mg/kg DW	<1	<1
EPA Site Inspection	DR070	08/12/98	Silver	3.70E-01	1.75		6.1	6.1	mg/kg DW	<1	<1
EPA Site Inspection	DR080	08/24/98	Silver	3.60E-01	1.82		6.1	6.1	mg/kg DW	<1	<1
Ecology SPI	SPI-108	08/11/06	Silver	3.60E-01	1.55		6.1	6.1	mg/kg DW	<1	<1
EPA Site Inspection	DR048	08/12/98	Silver	3.40E-01	2.03		6.1	6.1	mg/kg DW	<1	<1
EPA Site Inspection	DR066	08/18/98	Silver	3.40E-01	2.25		6.1	6.1	mg/kg DW	<1	<1
EPA Site Inspection	DR037	08/18/98	Silver	3.20E-01	2.02		6.1	6.1	mg/kg DW	<1	<1
EPA Site Inspection	DR069	08/18/98	Silver	3.00E-01	1.92		6.1	6.1	mg/kg DW	<1	<1
EPA Site Inspection	DR040	08/12/98	Silver	2.90E-01	4.69		6.1	6.1	mg/kg DW	<1	<1
EPA Site Inspection	DR033	08/11/98	Silver	2.80E-01	1.72		6.1	6.1	mg/kg DW	<1	<1
EPA Site Inspection	DR045	09/14/98	Silver	2.70E-01	2.92		6.1	6.1	mg/kg DW	<1	<1
LDWRI-Benthic	B2a	08/13/04	Silver	2.67E-01	1.97		6.1	6.1	mg/kg DW	<1	<1
EPA Site Inspection	DR044	08/12/98	Silver	2.60E-01	2.08		6.1	6.1	mg/kg DW	<1	<1
EPA Site Inspection	DR046	08/12/98	Silver	2.40E-01	2.26		6.1	6.1	mg/kg DW	<1	<1
EPA Site Inspection	DR032	08/11/98	Silver	2.30E-01	1.79		6.1	6.1	mg/kg DW	<1	<1
EPA Site Inspection	DR067	08/18/98	Silver	2.20E-01	0.82		6.1	6.1	mg/kg DW	<1	<1
EPA Site Inspection	DR076	08/24/98	Silver	2.20E-01	0.1		6.1	6.1	mg/kg DW	<1	<1
EPA Site Inspection	DR031	08/11/98	Silver	1.90E-01	2.07		6.1	6.1	mg/kg DW	<1	<1
LDWRI-Benthic	C2-1	08/26/04	Silver	1.64E-01	1.82		6.1	6.1	mg/kg DW	<1	<1
LDWRI-Benthic	C2-2	08/26/04	Silver	1.17E-01	1.06		6.1	6.1	mg/kg DW	<1	<1
EPA Site Inspection	DR036	08/12/98	Silver	1.10E-01	3.37		6.1	6.1	mg/kg DW	<1	<1
LDWRI-Benthic	C3-1	08/27/04	Silver	9.40E-02	0.93		6.1	6.1	mg/kg DW	<1	<1
LDWRI-Benthic	B3a	08/26/04	Silver	8.60E-02	1.36		6.1	6.1	mg/kg DW	<1	<1
LDWRI-Benthic	C3-2	08/27/04	Silver	7.30E-02	1.31		6.1	6.1	mg/kg DW	<1	<1
LDWRI-Benthic	C1	08/26/04	Silver	4.00E-02	0.47		6.1	6.1	mg/kg DW	<1	<1
LDWRI-Benthic	B2a	08/13/04	Tetrabutyltin as ion	5.60E-04 J	1.97						
EPA Site Inspection	DR042	08/12/98	Thallium	1.80E-01	9.23						
EPA Site Inspection	DR038	09/02/98	Thallium	1.50E-01	2.62						
EPA Site Inspection	DR043	08/12/98	Thallium	1.50E-01	4.48						
EPA Site Inspection	DR039	08/12/98	Thallium	1.40E-01	2.43						

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
Puget Sound Sediment Quality/ NOAA Site Characterization	203	06/22/98	Thallium	1.30E-01 J	1.5						
EPA Site Inspection	DR040	08/12/98	Thallium	1.30E-01	4.69						
EPA Site Inspection	DR041	08/12/98	Thallium	1.30E-01	2.43						
EPA Site Inspection	DR044	08/12/98	Thallium	1.30E-01	2.68						
EPA Site Inspection	DR069	08/18/98	Thallium	1.30E-01	1.92						
EPA Site Inspection	DR034	08/11/98	Thallium	1.20E-01	1.84						
EPA Site Inspection	DR035	08/11/98	Thallium	1.20E-01	2.29						
EPA Site Inspection	DR037	08/18/98	Thallium	1.20E-01	2.02						
EPA Site Inspection	DR048	08/12/98	Thallium	1.20E-01	2.03						
EPA Site Inspection	DR068	08/18/98	Thallium	1.20E-01	2.36						
EPA Site Inspection	DR077	08/24/98	Thallium	1.20E-01	1.61						
EPA Site Inspection	DR078	08/24/98	Thallium	1.20E-01	2.07						
EPA Site Inspection	DR079	08/24/98	Thallium	1.20E-01	2.18						
EPA Site Inspection	DR080	08/24/98	Thallium	1.20E-01	1.82						
EPA Site Inspection	DR044	08/12/98	Thallium	1.10E-01	2.22						
EPA Site Inspection	DR045	09/14/98	Thallium	1.10E-01 J	2.92						
EPA Site Inspection	DR070	08/12/98	Thallium	1.10E-01	1.75						
EPA Site Inspection	DR033	08/11/98	Thallium	1.00E-01	1.72						
EPA Site Inspection	DR044	08/12/98	Thallium	1.00E-01	2.08						
EPA Site Inspection	DR047	09/14/98	Thallium	1.00E-01 J	1.4						
LDWRI-Benthic	B2a	08/13/04	Thallium	9.10E-02	1.97						
EPA Site Inspection	DR046	08/12/98	Thallium	9.00E-02	2.26						
EPA Site Inspection	DR066	08/18/98	Thallium	9.00E-02	2.25						
EPA Site Inspection	DR032	08/11/98	Thallium	8.00E-02	1.79						
EPA Site Inspection	DR031	08/11/98	Thallium	7.00E-02	2.07						
EPA Site Inspection	DR036	08/12/98	Thallium	7.00E-02	3.37						
LDWRI-Benthic	C2-1	08/26/04	Thallium	6.40E-02	1.82						
LDWRI-Benthic	C3-1	08/27/04	Thallium	5.40E-02	0.93						
LDWRI-Benthic	C3-2	08/27/04	Thallium	5.40E-02	1.31						
LDWRI-Benthic	B3a	08/26/04	Thallium	5.20E-02	1.36						
EPA Site Inspection	DR067	08/18/98	Thallium	5.00E-02	0.82						
LDWRI-Benthic	C2-2	08/26/04	Thallium	4.90E-02	1.06						
EPA Site Inspection	DR076	08/24/98	Thallium	4.00E-02	0.1						
LDWRI-Benthic	C1	08/26/04	Thallium	3.60E-02	0.47						
EPA Site Inspection	DR076	08/24/98	Tin	4.68E+01	0.1						
EPA Site Inspection	DR044	08/12/98	Tin	2.10E+01	2.08						
EPA Site Inspection	DR047	09/14/98	Tin	1.10E+01 J	1.4						
EPA Site Inspection	DR035	08/11/98	Tin	9.00E+00	2.29						
EPA Site Inspection	DR042	08/12/98	Tin	9.00E+00 J	9.23						
EPA Site Inspection	DR038	09/02/98	Tin	8.00E+00	2.62						
Puget Sound Sediment Quality/ NOAA Site Characterization	203	06/22/98	Tin	7.78E+00 J	1.5						

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
EPA Site Inspection	DR039	08/12/98	Tin	7.00E+00 J							
EPA Site Inspection	DR040	08/12/98	Tin	7.00E+00 J	4.69						
EPA Site Inspection	DR043	08/12/98	Tin	7.00E+00 J	4.48						
EPA Site Inspection	DR034	08/11/98	Tin	6.00E+00	1.84						
EPA Site Inspection	DR041	08/12/98	Tin	6.00E+00 J	2.43						
EPA Site Inspection	DR048	08/12/98	Tin	6.00E+00 J	2.03						
EPA Site Inspection	DR070	08/12/98	Tin	6.00E+00 J	1.75						
EPA Site Inspection	DR077	08/24/98	Tin	6.00E+00	1.61						
EPA Site Inspection	DR031	08/11/98	Tin	5.00E+00	2.07						
EPA Site Inspection	DR033	08/11/98	Tin	5.00E+00	1.72						
EPA Site Inspection	DR044	08/12/98	Tin	5.00E+00 J	2.22						
EPA Site Inspection	DR046	08/12/98	Tin	5.00E+00 J	2.26						
EPA Site Inspection	DR069	08/18/98	Tin	5.00E+00 J							
EPA Site Inspection	DR078	08/24/98	Tin	5.00E+00	2.07						
EPA Site Inspection	DR079	08/24/98	Tin	5.00E+00	2.18						
EPA Site Inspection	DR037	08/18/98	Tin	4.00E+00 J							
EPA Site Inspection	DR066	08/18/98	Tin	4.00E+00	2.25						
EPA Site Inspection	DR068	08/18/98	Tin	4.00E+00 J							
EPA Site Inspection	DR080	08/24/98	Tin	4.00E+00	1.82						
EPA Site Inspection	DR032	08/11/98	Tin	3.00E+00	1.79						
EPA Site Inspection	DR067	08/18/98	Tin	2.00E+00	0.82						
Puget Sound Sediment Quality/ NOAA Site Characterization	203	06/22/98	Titanium	8.69E+02	1.5						
EPA Site Inspection	DR067	08/18/98	Toluene	1.50E-03 J							
LDWRI-Benthic	C2-2	08/26/04	Total Chlordane (calc'd)	1.50E-03 J	1.06	1.42E-01					
LDWRI-Benthic	C2-1	08/26/04	Total Chlordane (calc'd)	1.40E-03 J	1.82	7.69E-02					
LDWRI-Benthic	C3-1	08/27/04	Total Chlordane (calc'd)	9.90E-04 J	0.93	1.06E-01					
LDWRI-Benthic	B2a	08/13/04	Total Chlordane (calc'd)	2.40E-04 JN	1.97	1.22E-02					
LDWRI-Benthic	C1	08/26/04	Total Chlordane (calc'd)	2.00E-04 J	0.47						
EPA Site Inspection	DR044	08/12/98	Total HPAH (calc'd)	5.08E+01	2.08	2.44E+03	960	5,300	mg/kg OC	2.5	<1
LDWRI-Surface Sediment Round 3	LDW-SS312[a]	10/03/06	Total HPAH (calc'd)	2.63E+01	4.2		12	17	mg/kg DW	2.2	1.5
LDWRI-Surface Sediment Round 2	LDW-SS24[a]	03/14/05	Total HPAH (calc'd)	2.44E+01	5.99		12	17	mg/kg DW	2.0	1.4
EPA Site Inspection	DR038	09/02/98	Total HPAH (calc'd)	2.13E+01	2.62	8.11E+02	960	5,300	mg/kg OC	<1	<1
LDW Dioxin Sampling	LDW-SS509[a]	12/15/09	Total HPAH (calc'd)	2.09E+01 J	7.08		12	17	mg/kg DW	1.7	1.2
EPA Site Inspection	DR033	08/11/98	Total HPAH (calc'd)	1.96E+01	1.72	1.14E+03	960	5,300	mg/kg OC	1.2	<1
LDWRI-Surface Sediment Round 3	LDW-SS311[a]	10/03/06	Total HPAH (calc'd)	1.41E+01	4.36		12	17	mg/kg DW	1.2	<1
Terminal 105 Site Assessment	SS1	11/23/93	Total HPAH (calc'd)	1.28E+01	1.9	6.73E+02	960	5,300	mg/kg OC	<1	<1
EPA Site Inspection	DR040[a]	08/12/98	Total HPAH (calc'd)	1.23E+01	4.69	2.62E+02	12	17	mg/kg DW	1.0	<1
EPA Site Inspection	DR047	09/14/98	Total HPAH (calc'd)	1.18E+01	1.4	8.44E+02	960	5,300	mg/kg OC	<1	<1
EPA Site Inspection	DR037	08/18/98	Total HPAH (calc'd)	9.67E+00	2.02	4.79E+02	960	5,300	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS9	03/14/05	Total HPAH (calc'd)	8.70E+00	1.79	4.86E+02	960	5,300	mg/kg OC	<1	<1
EPA Site Inspection	DR035	08/11/98	Total HPAH (calc'd)	8.26E+00	2.29	3.61E+02	960	5,300	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SSSWCSO-U	04/08/11	Total HPAH (calc'd)	8.00E+00 J	1.2	6.67E+02	960	5,300	mg/kg OC	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
LDW Outfall Sampling	LDW-SS2150-A[a]	04/20/11	Total HPAH (calc'd)	7.60E+00	5.62		12	17	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS36	01/24/05	Total HPAH (calc'd)	6.60E+00 J	1.89	3.49E+02	960	5,300	mg/kg OC	<1	<1
EPA Site Inspection	DR031	08/11/98	Total HPAH (calc'd)	6.15E+00	2.07	2.97E+02	960	5,300	mg/kg OC	<1	<1
EPA Site Inspection	DR048	08/12/98	Total HPAH (calc'd)	5.14E+00	2.03	2.53E+02	960	5,300	mg/kg OC	<1	<1
Ecology SPI	TRI-015T	08/08/06	Total HPAH (calc'd)	4.79E+00	2.16	2.22E+02	960	5,300	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS310	10/03/06	Total HPAH (calc'd)	4.67E+00	1.63	2.87E+02	960	5,300	mg/kg OC	<1	<1
Ecology SPI	TRI-010	08/08/06	Total HPAH (calc'd)	4.49E+00	2.2	2.04E+02	960	5,300	mg/kg OC	<1	<1
Ecology SPI	SPI-108	08/11/06	Total HPAH (calc'd)	4.43E+00 J	1.55	2.86E+02	960	5,300	mg/kg OC	<1	<1
EPA Site Inspection	DR077	08/24/98	Total HPAH (calc'd)	4.40E+00	1.61	2.73E+02	960	5,300	mg/kg OC	<1	<1
EPA Site Inspection	DR068	08/18/98	Total HPAH (calc'd)	4.26E+00	2.36	1.81E+02	960	5,300	mg/kg OC	<1	<1
EPA Site Inspection	DR034	08/11/98	Total HPAH (calc'd)	4.21E+00	1.84	2.29E+02	960	5,300	mg/kg OC	<1	<1
EPA Site Inspection	DR041	08/12/98	Total HPAH (calc'd)	4.05E+00	2.43	1.67E+02	960	5,300	mg/kg OC	<1	<1
EPA Site Inspection	DR066	08/18/98	Total HPAH (calc'd)	4.02E+00	2.25	1.79E+02	960	5,300	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS16	03/08/05	Total HPAH (calc'd)	3.90E+00	2.11	1.85E+02	960	5,300	mg/kg OC	<1	<1
Terminal 105 Site Assessment	SS2	11/17/93	Total HPAH (calc'd)	3.90E+00	0.98	3.98E+02	960	5,300	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS309	10/03/06	Total HPAH (calc'd)	3.72E+00	2.02	1.84E+02	960	5,300	mg/kg OC	<1	<1
EPA Site Inspection	DR032	08/11/98	Total HPAH (calc'd)	3.66E+00	1.79	2.04E+02	960	5,300	mg/kg OC	<1	<1
EPA Site Inspection	DR079	08/24/98	Total HPAH (calc'd)	3.56E+00	2.18	1.63E+02	960	5,300	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS308	10/03/06	Total HPAH (calc'd)	3.56E+00	1.86	1.91E+02	960	5,300	mg/kg OC	<1	<1
Puget Sound Sediment Quality/ NOAA Site Characterization	203	06/22/98	Total HPAH (calc'd)	3.47E+00 J	1.5	2.31E+02	960	5,300	mg/kg OC	<1	<1
EPA Site Inspection	DR039	08/12/98	Total HPAH (calc'd)	3.41E+00	2.43	1.40E+02	960	5,300	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SSSWCSO-A	04/08/11	Total HPAH (calc'd)	3.40E+00	2.69	1.26E+02	960	5,300	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS19	03/08/05	Total HPAH (calc'd)	3.33E+00	2.07	1.61E+02	960	5,300	mg/kg OC	<1	<1
EPA Site Inspection	DR069	08/18/98	Total HPAH (calc'd)	3.27E+00	1.92	1.70E+02	960	5,300	mg/kg OC	<1	<1
EPA Site Inspection	DR078	08/24/98	Total HPAH (calc'd)	3.27E+00	2.07	1.58E+02	960	5,300	mg/kg OC	<1	<1
Ecology SPI	TRI-016	08/08/06	Total HPAH (calc'd)	3.13E+00	2.38	1.32E+02	960	5,300	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2157-A	03/24/11	Total HPAH (calc'd)	3.10E+00 J	1.81	1.71E+02	960	5,300	mg/kg OC	<1	<1
EPA Site Inspection	DR042[a]	08/12/98	Total HPAH (calc'd)	3.03E+00	9.23	3.28E+01	12	17	mg/kg DW	<1	<1
Harbor Island RI	K-05	09/27/91	Total HPAH (calc'd)	3.02E+00 J	1.6	1.89E+02	960	5,300	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2150-A[a]	04/20/11	Total HPAH (calc'd)	2.90E+00	9.22		12	17	mg/kg DW	<1	<1
EPA Site Inspection	DR067	08/18/98	Total HPAH (calc'd)	2.73E+00	0.82	3.33E+02	960	5,300	mg/kg OC	<1	<1
EPA Site Inspection	DR070	08/12/98	Total HPAH (calc'd)	2.68E+00	1.75	1.53E+02	960	5,300	mg/kg OC	<1	<1
EPA Site Inspection	DR080	08/24/98	Total HPAH (calc'd)	2.64E+00	1.82	1.45E+02	960	5,300	mg/kg OC	<1	<1
EPA Site Inspection	DR046	08/12/98	Total HPAH (calc'd)	2.43E+00	2.26	1.08E+02	960	5,300	mg/kg OC	<1	<1
LDWRI-Benthic	B2a	08/13/04	Total HPAH (calc'd)	2.33E+00	1.97	1.18E+02	960	5,300	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	03/06/97	Total HPAH (calc'd)	2.03E+00	2.27	8.94E+01	960	5,300	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	05/01/97	Total HPAH (calc'd)	2.03E+00	2.03	9.99E+01	960	5,300	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS10	01/17/05	Total HPAH (calc'd)	1.91E+00	1.63	1.17E+02	960	5,300	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	03/12/97	Total HPAH (calc'd)	1.90E+00	2.09	9.09E+01	960	5,300	mg/kg OC	<1	<1
LDWRI-Benthic	C2-1	08/26/04	Total HPAH (calc'd)	1.86E+00	1.82	1.02E+02	960	5,300	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	04/17/97	Total HPAH (calc'd)	1.80E+00	2.07	8.69E+01	960	5,300	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-2	09/24/97	Total HPAH (calc'd)	1.72E+00	2.09	8.23E+01	960	5,300	mg/kg OC	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
LDWRI-Surface Sediment Round 1	LDW-SS28	01/24/05	Total HPAH (calc'd)	1.72E+00 J	1.22	1.41E+02	960	5,300	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2150-A[a]	04/20/11	Total HPAH (calc'd)	1.70E+00	4.42		12	17	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2232-U	04/20/11	Total HPAH (calc'd)	1.70E+00	1.63	1.04E+02	960	5,300	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	04/03/97	Total HPAH (calc'd)	1.68E+00	2.17	7.74E+01	960	5,300	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-1	09/24/97	Total HPAH (calc'd)	1.67E+00	2.59	6.46E+01	960	5,300	mg/kg OC	<1	<1
EPA Site Inspection	DR043[a]	08/12/98	Total HPAH (calc'd)	1.66E+00	4.48	3.71E+01	12	17	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS12	01/17/05	Total HPAH (calc'd)	1.61E+00	1.88	8.56E+01	960	5,300	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-1	09/24/97	Total HPAH (calc'd)	1.58E+00 J	2.44	6.48E+01	960	5,300	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2144-A	03/14/11	Total HPAH (calc'd)	1.50E+00	0.849	1.77E+02	960	5,300	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS3	03/09/05	Total HPAH (calc'd)	1.50E+00	0.723	2.07E+02	960	5,300	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-1	09/24/97	Total HPAH (calc'd)	1.49E+00	2.29	6.50E+01	960	5,300	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-2	09/24/97	Total HPAH (calc'd)	1.43E+00 J	2.06	6.95E+01	960	5,300	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2233-D	04/20/11	Total HPAH (calc'd)	1.40E+00	0.617	2.27E+02	960	5,300	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS313	10/04/06	Total HPAH (calc'd)	1.36E+00 J	1.95	6.97E+01	960	5,300	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS314	10/04/06	Total HPAH (calc'd)	1.30E+00 J	2.81	4.63E+01	960	5,300	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS29	03/14/05	Total HPAH (calc'd)	1.26E+00	1.68	7.50E+01	960	5,300	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS15	01/17/05	Total HPAH (calc'd)	1.13E+00	1.79	6.31E+01	960	5,300	mg/kg OC	<1	<1
EPA Site Inspection	DR036	08/12/98	Total HPAH (calc'd)	1.10E+00	3.37	3.26E+01	960	5,300	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-2	09/24/97	Total HPAH (calc'd)	1.10E+00	2.03	5.40E+01	960	5,300	mg/kg OC	<1	<1
EPA Site Inspection	DR044	08/12/98	Total HPAH (calc'd)	1.09E+00	2.22	4.91E+01	960	5,300	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-3	09/24/97	Total HPAH (calc'd)	1.08E+00	2.24	4.81E+01	960	5,300	mg/kg OC	<1	<1
Terminal 105 Site Assessment	SS3[a]	11/17/93	Total HPAH (calc'd)	1.05E+00 J	0.13		12	17	mg/kg DW	<1	<1
EPA Site Inspection	DR045	09/14/98	Total HPAH (calc'd)	1.02E+00	2.92	3.49E+01	960	5,300	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2147-D	03/14/11	Total HPAH (calc'd)	1.00E+00	0.782	1.28E+02	960	5,300	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-17	03/28/96	Total HPAH (calc'd)	9.75E-01 J	2.66	3.67E+01	960	5,300	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-3	09/24/97	Total HPAH (calc'd)	9.45E-01 J	2.145	4.40E+01	960	5,300	mg/kg OC	<1	<1
LDWRI-Benthic	C3-2	08/27/04	Total HPAH (calc'd)	8.10E-01	1.31	6.18E+01	960	5,300	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-3	09/24/97	Total HPAH (calc'd)	7.83E-01	2.05	3.82E+01	960	5,300	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS33	01/26/05	Total HPAH (calc'd)	7.60E-01 J	1.66	4.58E+01	960	5,300	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS315	10/04/06	Total HPAH (calc'd)	7.50E-01 J	1.74	4.31E+01	960	5,300	mg/kg OC	<1	<1
LDWRI-Benthic	C3-1	08/27/04	Total HPAH (calc'd)	7.10E-01	0.93	7.63E+01	960	5,300	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2146-A	03/14/11	Total HPAH (calc'd)	7.10E-01 J	1.01	7.03E+01	960	5,300	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS14	01/17/05	Total HPAH (calc'd)	6.40E-01	0.79	8.10E+01	960	5,300	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS34	03/14/05	Total HPAH (calc'd)	6.40E-01	1.52	4.21E+01	960	5,300	mg/kg OC	<1	<1
LDWRI-Benthic	B1a	08/13/04	Total HPAH (calc'd)	6.00E-01	1.7	3.53E+01	960	5,300	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-16	03/28/96	Total HPAH (calc'd)	5.80E-01 J	2.99	1.94E+01	960	5,300	mg/kg OC	<1	<1
EPA Site Inspection	DR044	08/12/98	Total HPAH (calc'd)	5.60E-01	2.68	2.09E+01	960	5,300	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-4	03/28/96	Total HPAH (calc'd)	5.58E-01 J	1.85	3.02E+01	960	5,300	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2232-A	04/20/11	Total HPAH (calc'd)	5.10E-01	1.11	4.59E+01	960	5,300	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-3	03/28/96	Total HPAH (calc'd)	4.20E-01	2.22	1.89E+01	960	5,300	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-18	03/28/96	Total HPAH (calc'd)	4.10E-01	3.11	1.32E+01	960	5,300	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-5	03/28/96	Total HPAH (calc'd)	3.15E-01	2.05	1.54E+01	960	5,300	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-10	03/28/96	Total HPAH (calc'd)	2.82E-01	2.57	1.10E+01	960	5,300	mg/kg OC	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
LDWRI-Benthic	B3a	08/26/04	Total HPAH (calc'd)	2.71E-01 J	1.36	1.99E+01	960	5,300	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-15	03/28/96	Total HPAH (calc'd)	2.50E-01	1.46	1.71E+01	960	5,300	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-13	03/28/96	Total HPAH (calc'd)	2.28E-01	2.64	8.64E+00	960	5,300	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-20	03/28/96	Total HPAH (calc'd)	2.27E-01	1.13	2.01E+01	960	5,300	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-12	03/28/96	Total HPAH (calc'd)	2.26E-01	2.43	9.30E+00	960	5,300	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-11	03/28/96	Total HPAH (calc'd)	2.24E-01	2.7	8.31E+00	960	5,300	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS23	01/18/05	Total HPAH (calc'd)	2.24E-01	1.23	1.82E+01	960	5,300	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-1	03/28/96	Total HPAH (calc'd)	2.23E-01	3.4	6.56E+00	960	5,300	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-2	03/28/96	Total HPAH (calc'd)	2.09E-01	1.74	1.20E+01	960	5,300	mg/kg OC	<1	<1
LDWRI-Benthic	C1[a]	08/26/04	Total HPAH (calc'd)	2.04E-01 J	0.47		12	17	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2233-U[a]	04/20/11	Total HPAH (calc'd)	2.00E-01 J	0.38		12	17	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-7	03/28/96	Total HPAH (calc'd)	2.00E-01	1.76	1.14E+01	960	5,300	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-4	09/24/97	Total HPAH (calc'd)	1.98E-01	0.71	2.79E+01	960	5,300	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-4	09/24/97	Total HPAH (calc'd)	1.73E-01 J	0.81	2.13E+01	960	5,300	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-14	03/28/96	Total HPAH (calc'd)	1.70E-01	1.68	1.01E+01	960	5,300	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-9	03/28/96	Total HPAH (calc'd)	1.68E-01	1.68	9.98E+00	960	5,300	mg/kg OC	<1	<1
LDWRI-Benthic	C2-2	08/26/04	Total HPAH (calc'd)	1.58E-01 J	1.06	1.49E+01	960	5,300	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-19	03/28/96	Total HPAH (calc'd)	1.57E-01	2.75	5.72E+00	960	5,300	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-8	03/28/96	Total HPAH (calc'd)	1.54E-01	1.78	8.64E+00	960	5,300	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-6	03/28/96	Total HPAH (calc'd)	1.37E-01	1.79	7.65E+00	960	5,300	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-6	03/28/96	Total HPAH (calc'd)	1.37E-01	1.79	7.65E+00	960	5,300	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-4	09/24/97	Total HPAH (calc'd)	1.11E-01	0.91	1.22E+01	960	5,300	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2232-D	04/20/11	Total HPAH (calc'd)	7.70E-02 J	0.778	9.90E+00	960	5,300	mg/kg OC	<1	<1
EPA Site Inspection	DR076[a]	08/24/98	Total HPAH (calc'd)	3.00E-02	0.1	3.00E+01	12	17	mg/kg DW	<1	<1
LDW Dioxin Sampling	LDW-SS509	12/15/09	Total HpCDD	1.91E-03	7.08						
EPA Site Inspection	DR042	08/12/98	Total HpCDD	1.30E-03	9.23						
LDW Dioxin Sampling	LDW-SS507	12/16/09	Total HpCDD	1.08E-03	1.79						
LDW Dioxin Sampling	LDW-SS514	12/16/09	Total HpCDD	9.73E-04	1.63						
LDW Outfall Sampling	LDW-SS2157-A	03/24/11	Total HpCDD	7.91E-04	1.81						
EPA Site Inspection	DR047	09/14/98	Total HpCDD	6.10E-04	1.4						
EPA Site Inspection	DR046	08/12/98	Total HpCDD	5.10E-04	2.26						
EPA Site Inspection	DR033	08/11/98	Total HpCDD	4.30E-04	1.72						
LDW Outfall Sampling	LDW-SS2150-A	04/20/11	Total HpCDD	1.27E-04	4.42						
LDW Dioxin Sampling	LDW-SS509	12/15/09	Total HpCDF	5.94E-04	7.08						
EPA Site Inspection	DR042	08/12/98	Total HpCDF	4.30E-04	9.23						
LDW Dioxin Sampling	LDW-SS514	12/16/09	Total HpCDF	3.60E-04	1.63						
LDW Dioxin Sampling	LDW-SS507	12/16/09	Total HpCDF	2.42E-04	1.79						
EPA Site Inspection	DR046	08/12/98	Total HpCDF	1.90E-04	2.26						
LDW Outfall Sampling	LDW-SS2157-A	03/24/11	Total HpCDF	1.82E-04	1.81						
EPA Site Inspection	DR047	09/14/98	Total HpCDF	1.80E-04	1.4						
EPA Site Inspection	DR033	08/11/98	Total HpCDF	1.30E-04	1.72						
LDW Outfall Sampling	LDW-SS2150-A	04/20/11	Total HpCDF	4.63E-05	4.42						
LDW Dioxin Sampling	LDW-SS509	12/15/09	Total HxCDD	5.11E-04	7.08						
EPA Site Inspection	DR042	08/12/98	Total HxCDD	2.00E-04	9.23						
LDW Dioxin Sampling	LDW-SS514	12/16/09	Total HxCDD	1.11E-04	1.63						

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
LDW Dioxin Sampling	LDW-SS507	12/16/09	Total HxCDD	1.04E-04	1.79						
EPA Site Inspection	DR047	09/14/98	Total HxCDD	9.70E-05	1.4						
LDW Outfall Sampling	LDW-SS2157-A	03/24/11	Total HxCDD	9.17E-05	1.81						
EPA Site Inspection	DR046	08/12/98	Total HxCDD	7.00E-05	2.26						
EPA Site Inspection	DR033	08/11/98	Total HxCDD	6.20E-05	1.72						
LDW Outfall Sampling	LDW-SS2150-A	04/20/11	Total HxCDD	1.91E-05 J	4.42						
LDW Dioxin Sampling	LDW-SS509	12/15/09	Total HxCDF	5.66E-04	7.08						
EPA Site Inspection	DR042	08/12/98	Total HxCDF	1.70E-04	9.23						
LDW Dioxin Sampling	LDW-SS514	12/16/09	Total HxCDF	1.64E-04	1.63						
LDW Dioxin Sampling	LDW-SS507	12/16/09	Total HxCDF	9.56E-05	1.79						
EPA Site Inspection	DR047	09/14/98	Total HxCDF	8.20E-05	1.4						
LDW Outfall Sampling	LDW-SS2157-A	03/24/11	Total HxCDF	7.08E-05	1.81						
EPA Site Inspection	DR046	08/12/98	Total HxCDF	5.70E-05	2.26						
EPA Site Inspection	DR033	08/11/98	Total HxCDF	5.40E-05	1.72						
LDW Outfall Sampling	LDW-SS2150-A	04/20/11	Total HxCDF	1.73E-05	4.42						
EPA Site Inspection	DR037	08/18/98	Total LPAH (calc'd)	6.29E+00	2.02	3.11E+02	370	780	mg/kg OC	<1	<1
EPA Site Inspection	DR038	09/02/98	Total LPAH (calc'd)	6.22E+00	2.62	2.37E+02	370	780	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS312[a]	10/03/06	Total LPAH (calc'd)	5.20E+00	4.2		5.2	13	mg/kg DW	1.0	<1
EPA Site Inspection	DR033	08/11/98	Total LPAH (calc'd)	5.10E+00	1.72	2.97E+02	370	780	mg/kg OC	<1	<1
EPA Site Inspection	DR044	08/12/98	Total LPAH (calc'd)	3.66E+00	2.08	1.76E+02	370	780	mg/kg OC	<1	<1
LDW Dioxin Sampling	LDW-SS509[a]	12/15/09	Total LPAH (calc'd)	3.60E+00	7.08		5.2	13	mg/kg DW	<1	<1
Terminal 105 Site Assessment	SS1	11/23/93	Total LPAH (calc'd)	3.40E+00	1.9	1.79E+02	370	780	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS24[a]	03/14/05	Total LPAH (calc'd)	3.20E+00	5.99		5.2	13	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SSSWCSO-U	04/08/11	Total LPAH (calc'd)	3.20E+00 J	1.2	2.67E+02	370	780	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS9	03/14/05	Total LPAH (calc'd)	2.30E+00	1.79	1.28E+02	370	780	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS36	01/24/05	Total LPAH (calc'd)	2.20E+00 J	1.89	1.16E+02	370	780	mg/kg OC	<1	<1
EPA Site Inspection	DR040[a]	08/12/98	Total LPAH (calc'd)	1.74E+00	4.69	3.71E+01	5.2	13	mg/kg DW	<1	<1
EPA Site Inspection	DR035	08/11/98	Total LPAH (calc'd)	1.34E+00	2.29	5.85E+01	370	780	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS311[a]	10/03/06	Total LPAH (calc'd)	1.34E+00 J	4.36		5.2	13	mg/kg DW	<1	<1
Terminal 105 Site Assessment	SS2	11/17/93	Total LPAH (calc'd)	1.28E+00	0.98	1.31E+02	370	780	mg/kg OC	<1	<1
EPA Site Inspection	DR031	08/11/98	Total LPAH (calc'd)	1.15E+00	2.07	5.56E+01	370	780	mg/kg OC	<1	<1
Ecology SPI	TRI-015T	08/08/06	Total LPAH (calc'd)	1.05E+00	2.16	4.88E+01	370	780	mg/kg OC	<1	<1
EPA Site Inspection	DR067	08/18/98	Total LPAH (calc'd)	1.00E+00	0.82	1.22E+02	370	780	mg/kg OC	<1	<1
Ecology SPI	TRI-010	08/08/06	Total LPAH (calc'd)	9.60E-01	2.2	4.36E+01	370	780	mg/kg OC	<1	<1
Ecology SPI	SPI-108	08/11/06	Total LPAH (calc'd)	9.01E-01	1.55	5.81E+01	370	780	mg/kg OC	<1	<1
EPA Site Inspection	DR047	09/14/98	Total LPAH (calc'd)	8.30E-01	1.4	5.93E+01	370	780	mg/kg OC	<1	<1
Terminal 105 Site Assessment	SS3[a]	11/17/93	Total LPAH (calc'd)	7.67E-01	0.13		5.2	13	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS310	10/03/06	Total LPAH (calc'd)	7.40E-01 J	1.63	4.54E+01	370	780	mg/kg OC	<1	<1
LDWRI-Benthic	C2-1	08/26/04	Total LPAH (calc'd)	6.50E-01	1.82	3.57E+01	370	780	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS19	03/08/05	Total LPAH (calc'd)	6.10E-01 J	2.07	2.95E+01	370	780	mg/kg OC	<1	<1
Ecology SPI	TRI-016	08/08/06	Total LPAH (calc'd)	6.10E-01	2.38	2.56E+01	370	780	mg/kg OC	<1	<1
EPA Site Inspection	DR048	08/12/98	Total LPAH (calc'd)	6.00E-01	2.03	2.96E+01	370	780	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS16	03/08/05	Total LPAH (calc'd)	5.90E-01 J	2.11	2.80E+01	370	780	mg/kg OC	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
LDW Outfall Sampling	LDW-SSSWCSO-A	04/08/11	Total LPAH (calc'd)	5.60E-01 J	2.69	2.08E+01	370	780	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2157-A	03/24/11	Total LPAH (calc'd)	5.40E-01	1.81	2.98E+01	370	780	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2150-A[a]	04/20/11	Total LPAH (calc'd)	5.30E-01 J	5.62		5.2	13	mg/kg DW	<1	<1
EPA Site Inspection	DR068	08/18/98	Total LPAH (calc'd)	5.20E-01	2.36	2.20E+01	370	780	mg/kg OC	<1	<1
Puget Sound Sediment Quality/ NOAA Site Characterization	203	06/22/98	Total LPAH (calc'd)	4.86E-01	1.5	3.24E+01	370	780	mg/kg OC	<1	<1
EPA Site Inspection	DR034	08/11/98	Total LPAH (calc'd)	4.80E-01	1.84	2.61E+01	370	780	mg/kg OC	<1	<1
EPA Site Inspection	DR066	08/18/98	Total LPAH (calc'd)	4.60E-01	2.25	2.04E+01	370	780	mg/kg OC	<1	<1
EPA Site Inspection	DR041	08/12/98	Total LPAH (calc'd)	4.40E-01	2.43	1.81E+01	370	780	mg/kg OC	<1	<1
Harbor Island RI	K-05	09/27/91	Total LPAH (calc'd)	4.26E-01 J	1.6	2.66E+01	370	780	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS309	10/03/06	Total LPAH (calc'd)	4.00E-01 J	2.02	1.98E+01	370	780	mg/kg OC	<1	<1
EPA Site Inspection	DR077	08/24/98	Total LPAH (calc'd)	3.80E-01	1.61	2.36E+01	370	780	mg/kg OC	<1	<1
EPA Site Inspection	DR032	08/11/98	Total LPAH (calc'd)	3.70E-01	1.79	2.07E+01	370	780	mg/kg OC	<1	<1
EPA Site Inspection	DR039	08/12/98	Total LPAH (calc'd)	3.60E-01	2.43	1.48E+01	370	780	mg/kg OC	<1	<1
EPA Site Inspection	DR069	08/18/98	Total LPAH (calc'd)	3.60E-01	1.92	1.88E+01	370	780	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2150-A[a]	04/20/11	Total LPAH (calc'd)	3.60E-01 J	9.22		5.2	13	mg/kg DW	<1	<1
EPA Site Inspection	DR079	08/24/98	Total LPAH (calc'd)	3.10E-01	2.18	1.42E+01	370	780	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS308	10/03/06	Total LPAH (calc'd)	3.00E-01	1.86	1.61E+01	370	780	mg/kg OC	<1	<1
EPA Site Inspection	DR078	08/24/98	Total LPAH (calc'd)	2.90E-01	2.07	1.40E+01	370	780	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2150-A[a]	04/20/11	Total LPAH (calc'd)	2.90E-01 J	4.42		5.2	13	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS3	03/09/05	Total LPAH (calc'd)	2.90E-01 J	0.723	4.01E+01	370	780	mg/kg OC	<1	<1
LDWRI-Benthic	B2a	08/13/04	Total LPAH (calc'd)	2.80E-01	1.97	1.42E+01	370	780	mg/kg OC	<1	<1
EPA Site Inspection	DR042[a]	08/12/98	Total LPAH (calc'd)	2.70E-01	9.23	2.93E+00	5.2	13	mg/kg DW	<1	<1
EPA Site Inspection	DR080	08/24/98	Total LPAH (calc'd)	2.60E-01	1.82	1.43E+01	370	780	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2232-A	04/20/11	Total LPAH (calc'd)	2.50E-01 J	1.11	2.25E+01	370	780	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-17	03/28/96	Total LPAH (calc'd)	2.35E-01	2.66	8.84E+00	370	780	mg/kg OC	<1	<1
EPA Site Inspection	DR070	08/12/98	Total LPAH (calc'd)	2.30E-01	1.75	1.31E+01	370	780	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS12	01/17/05	Total LPAH (calc'd)	2.20E-01	1.88	1.17E+01	370	780	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	03/06/97	Total LPAH (calc'd)	2.03E-01	2.27	8.94E+00	370	780	mg/kg OC	<1	<1
EPA Site Inspection	DR046	08/12/98	Total LPAH (calc'd)	2.00E-01	2.26	8.85E+00	370	780	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	05/01/97	Total LPAH (calc'd)	1.96E-01	2.03	9.66E+00	370	780	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	03/12/97	Total LPAH (calc'd)	1.93E-01	2.09	9.23E+00	370	780	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS313	10/04/06	Total LPAH (calc'd)	1.90E-01 J	1.95	9.74E+00	370	780	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS314	10/04/06	Total LPAH (calc'd)	1.90E-01	2.81	6.76E+00	370	780	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-1	09/24/97	Total LPAH (calc'd)	1.82E-01	2.59	7.03E+00	370	780	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2233-D	04/20/11	Total LPAH (calc'd)	1.70E-01 J	0.617	2.76E+01	370	780	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS28	01/24/05	Total LPAH (calc'd)	1.70E-01	1.22	1.39E+01	370	780	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-1	09/24/97	Total LPAH (calc'd)	1.62E-01 J	2.44	6.64E+00	370	780	mg/kg OC	<1	<1
EPA Site Inspection	DR043[a]	08/12/98	Total LPAH (calc'd)	1.60E-01	4.48	3.57E+00	5.2	13	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	WQAKELL	04/17/97	Total LPAH (calc'd)	1.53E-01	2.07	7.39E+00	370	780	mg/kg OC	<1	<1
EPA Site Inspection	DR036	08/12/98	Total LPAH (calc'd)	1.50E-01	3.37	4.45E+00	370	780	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-2	09/24/97	Total LPAH (calc'd)	1.49E-01	2.09	7.13E+00	370	780	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS15	01/17/05	Total LPAH (calc'd)	1.47E-01	1.79	8.21E+00	370	780	mg/kg OC	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
KC CSO Water Quality Assessment	KI-1	09/24/97	Total LPAH (calc'd)	1.42E-01	2.29	6.20E+00	370	780	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-3	09/24/97	Total LPAH (calc'd)	1.40E-01	2.24	6.25E+00	370	780	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-2	09/24/97	Total LPAH (calc'd)	1.40E-01 J	2.06	6.77E+00	370	780	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-2	09/24/97	Total LPAH (calc'd)	1.30E-01	2.03	6.40E+00	370	780	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-3	09/24/97	Total LPAH (calc'd)	1.19E-01 J	2.145	5.52E+00	370	780	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS29	03/14/05	Total LPAH (calc'd)	1.18E-01	1.68	7.02E+00	370	780	mg/kg OC	<1	<1
LDWRI-Benthic	B1a	08/13/04	Total LPAH (calc'd)	1.16E-01	1.7	6.82E+00	370	780	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-4	03/28/96	Total LPAH (calc'd)	1.13E-01	1.85	6.10E+00	370	780	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	WQAKELL	04/03/97	Total LPAH (calc'd)	1.10E-01	2.17	5.07E+00	370	780	mg/kg OC	<1	<1
LDWRI-Benthic	C3-2	08/27/04	Total LPAH (calc'd)	1.06E-01 J	1.31	8.09E+00	370	780	mg/kg OC	<1	<1
EPA Site Inspection	DR044	08/12/98	Total LPAH (calc'd)	1.00E-01	2.22	4.50E+00	370	780	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS10	01/17/05	Total LPAH (calc'd)	9.90E-02	1.63	6.07E+00	370	780	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2147-D	03/14/11	Total LPAH (calc'd)	9.40E-02 J	0.782	1.20E+01	370	780	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-3	09/24/97	Total LPAH (calc'd)	8.00E-02	2.05	3.90E+00	370	780	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2232-U	04/20/11	Total LPAH (calc'd)	7.10E-02 J	1.63	4.36E+00	370	780	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2144-A	03/14/11	Total LPAH (calc'd)	6.40E-02 J	0.849	7.54E+00	370	780	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS315	10/04/06	Total LPAH (calc'd)	6.10E-02 J	1.74	3.51E+00	370	780	mg/kg OC	<1	<1
EPA Site Inspection	DR045	09/14/98	Total LPAH (calc'd)	6.00E-02	2.92	2.05E+00	370	780	mg/kg OC	<1	<1
LDWRI-Benthic	C3-1	08/27/04	Total LPAH (calc'd)	5.90E-02 J	0.93	6.34E+00	370	780	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS34	03/14/05	Total LPAH (calc'd)	5.40E-02	1.52	3.55E+00	370	780	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS14	01/17/05	Total LPAH (calc'd)	5.10E-02	0.79	6.46E+00	370	780	mg/kg OC	<1	<1
LDWRI-Benthic	B3a	08/26/04	Total LPAH (calc'd)	5.00E-02 J	1.36	3.68E+00	370	780	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2146-A	03/14/11	Total LPAH (calc'd)	4.80E-02	1.01	4.75E+00	370	780	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-5	03/28/96	Total LPAH (calc'd)	4.22E-02	2.05	2.06E+00	370	780	mg/kg OC	<1	<1
LDWRI-Benthic	C1[a]	08/26/04	Total LPAH (calc'd)	3.80E-02 J	0.47		5.2	13	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-3	03/28/96	Total LPAH (calc'd)	3.75E-02	2.22	1.69E+00	370	780	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-20	03/28/96	Total LPAH (calc'd)	3.42E-02	1.13	3.03E+00	370	780	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-16	03/28/96	Total LPAH (calc'd)	3.26E-02	2.99	1.09E+00	370	780	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-18	03/28/96	Total LPAH (calc'd)	2.92E-02	3.11	9.39E-01	370	780	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-4	09/24/97	Total LPAH (calc'd)	2.60E-02	0.71	3.66E+00	370	780	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-7	03/28/96	Total LPAH (calc'd)	2.55E-02	1.76	1.45E+00	370	780	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS23	01/18/05	Total LPAH (calc'd)	2.30E-02	1.23	1.87E+00	370	780	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-10	03/28/96	Total LPAH (calc'd)	2.26E-02	2.57	8.80E-01	370	780	mg/kg OC	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS33	01/26/05	Total LPAH (calc'd)	2.20E-02	1.66	1.33E+00	370	780	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-1	03/28/96	Total LPAH (calc'd)	2.14E-02	3.4	6.30E-01	370	780	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-2	03/28/96	Total LPAH (calc'd)	2.10E-02	1.74	1.21E+00	370	780	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-9	03/28/96	Total LPAH (calc'd)	2.05E-02	1.68	1.22E+00	370	780	mg/kg OC	<1	<1
LDWRI-Benthic	C2-2	08/26/04	Total LPAH (calc'd)	1.99E-02 J	1.06	1.88E+00	370	780	mg/kg OC	<1	<1
KC CSO Water Quality Assessment	KI-4	09/24/97	Total LPAH (calc'd)	1.98E-02 J	0.81	2.44E+00	370	780	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-8	03/28/96	Total LPAH (calc'd)	1.94E-02	1.78	1.09E+00	370	780	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-11	03/28/96	Total LPAH (calc'd)	1.92E-02	2.7	7.10E-01	370	780	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-13	03/28/96	Total LPAH (calc'd)	1.90E-02	2.64	7.20E-01	370	780	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-12	03/28/96	Total LPAH (calc'd)	1.90E-02	2.43	7.80E-01	370	780	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2233-U[a]	04/20/11	Total LPAH (calc'd)	1.80E-02 J	0.38		5.2	13	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-15	03/28/96	Total LPAH (calc'd)	1.56E-02	1.46	1.07E+00	370	780	mg/kg OC	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
Seaboard Lumber-Phase 2 Investigation	SD-6	03/28/96	Total LPAH (calc'd)	1.50E-02	1.79	8.39E-01	370	780	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-6	03/28/96	Total LPAH (calc'd)	1.50E-02	1.79	8.38E-01	370	780	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-19	03/28/96	Total LPAH (calc'd)	1.27E-02	2.75	4.60E-01	370	780	mg/kg OC	<1	<1
LDW Outfall Sampling	LDW-SS2232-D	04/20/11	Total LPAH (calc'd)	1.10E-02 J	0.778	1.41E+00	370	780	mg/kg OC	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-14	03/28/96	Total LPAH (calc'd)	9.06E-03	1.68	5.39E-01	370	780	mg/kg OC	<1	<1
EPA Site Inspection	DR044	08/12/98	Total PAH (calc'd)	5.45E+01	2.08						
LDWRI-Surface Sediment Round 3	LDW-SS312	10/03/06	Total PAH (calc'd)	3.15E+01	4.2						
LDWRI-Surface Sediment Round 2	LDW-SS24	03/14/05	Total PAH (calc'd)	2.76E+01	5.99						
EPA Site Inspection	DR038	09/02/98	Total PAH (calc'd)	2.75E+01	2.62						
EPA Site Inspection	DR033	08/11/98	Total PAH (calc'd)	2.47E+01	1.72						
LDW Dioxin Sampling	LDW-SS509	12/15/09	Total PAH (calc'd)	2.45E+01 J	7.08						
EPA Site Inspection	DR037	08/18/98	Total PAH (calc'd)	1.60E+01	2.02						
LDWRI-Surface Sediment Round 3	LDW-SS311	10/03/06	Total PAH (calc'd)	1.55E+01 J	4.36						
EPA Site Inspection	DR040	08/12/98	Total PAH (calc'd)	1.40E+01	4.69						
EPA Site Inspection	DR047	09/14/98	Total PAH (calc'd)	1.26E+01	1.4						
LDWRI-Surface Sediment Round 2	LDW-SS9	03/14/05	Total PAH (calc'd)	1.10E+01	1.79						
EPA Site Inspection	DR035	08/11/98	Total PAH (calc'd)	9.60E+00	2.29						
LDWRI-Surface Sediment Round 1	LDW-SS36	01/24/05	Total PAH (calc'd)	8.80E+00 J	1.89						
EPA Site Inspection	DR031	08/11/98	Total PAH (calc'd)	7.30E+00	2.07						
Ecology SPI	TRI-015T	08/08/06	Total PAH (calc'd)	5.84E+00	2.16						
EPA Site Inspection	DR048	08/12/98	Total PAH (calc'd)	5.74E+00	2.03						
Ecology SPI	TRI-010	08/08/06	Total PAH (calc'd)	5.46E+00	2.2						
LDWRI-Surface Sediment Round 3	LDW-SS310	10/03/06	Total PAH (calc'd)	5.40E+00 J	1.63						
Ecology SPI	SPI-108	08/11/06	Total PAH (calc'd)	5.33E+00 J	1.55						
EPA Site Inspection	DR068	08/18/98	Total PAH (calc'd)	4.78E+00	2.36						
EPA Site Inspection	DR077	08/24/98	Total PAH (calc'd)	4.78E+00	1.61						
EPA Site Inspection	DR034	08/11/98	Total PAH (calc'd)	4.69E+00	1.84						
EPA Site Inspection	DR041	08/12/98	Total PAH (calc'd)	4.49E+00	2.43						
LDWRI-Surface Sediment Round 2	LDW-SS16	03/08/05	Total PAH (calc'd)	4.49E+00 J	2.11						
EPA Site Inspection	DR066	08/18/98	Total PAH (calc'd)	4.48E+00	2.25						
LDWRI-Surface Sediment Round 3	LDW-SS309	10/03/06	Total PAH (calc'd)	4.12E+00 J	2.02						
EPA Site Inspection	DR032	08/11/98	Total PAH (calc'd)	4.03E+00	1.79						
Puget Sound Sediment Quality/ NOAA Site Characterization	203	06/22/98	Total PAH (calc'd)	3.96E+00 J	1.5						
LDWRI-Surface Sediment Round 2	LDW-SS19	03/08/05	Total PAH (calc'd)	3.94E+00 J	2.07						
EPA Site Inspection	DR079	08/24/98	Total PAH (calc'd)	3.87E+00	2.18						
LDWRI-Surface Sediment Round 3	LDW-SS308	10/03/06	Total PAH (calc'd)	3.86E+00	1.86						
EPA Site Inspection	DR039	08/12/98	Total PAH (calc'd)	3.77E+00	2.43						
Ecology SPI	TRI-016	08/08/06	Total PAH (calc'd)	3.74E+00	2.38						
EPA Site Inspection	DR067	08/18/98	Total PAH (calc'd)	3.73E+00	0.82						
EPA Site Inspection	DR069	08/18/98	Total PAH (calc'd)	3.63E+00	1.92						
EPA Site Inspection	DR078	08/24/98	Total PAH (calc'd)	3.56E+00	2.07						
Harbor Island RI	K-05	09/27/91	Total PAH (calc'd)	3.45E+00 J	1.6						
EPA Site Inspection	DR042	08/12/98	Total PAH (calc'd)	3.30E+00	9.23						

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
EPA Site Inspection	DR070	08/12/98	Total PAH (calc'd)	2.91E+00	1.75						
EPA Site Inspection	DR080	08/24/98	Total PAH (calc'd)	2.90E+00	1.82						
EPA Site Inspection	DR046	08/12/98	Total PAH (calc'd)	2.63E+00	2.26						
LDWRI-Benthic	B2a	08/13/04	Total PAH (calc'd)	2.61E+00	1.97						
LDWRI-Benthic	C2-1	08/26/04	Total PAH (calc'd)	2.51E+00	1.82						
KC CSO Water Quality Assessment	WQAKELL	03/06/97	Total PAH (calc'd)	2.23E+00	2.27						
KC CSO Water Quality Assessment	WQAKELL	05/01/97	Total PAH (calc'd)	2.22E+00	2.03						
KC CSO Water Quality Assessment	WQAKELL	03/12/97	Total PAH (calc'd)	2.09E+00	2.09						
LDWRI-Surface Sediment Round 1	LDW-SS10	01/17/05	Total PAH (calc'd)	2.01E+00	1.63						
KC CSO Water Quality Assessment	WQAKELL	04/17/97	Total PAH (calc'd)	1.95E+00	2.07						
LDWRI-Surface Sediment Round 1	LDW-SS28	01/24/05	Total PAH (calc'd)	1.89E+00 J	1.22						
KC CSO Water Quality Assessment	KI-2	09/24/97	Total PAH (calc'd)	1.87E+00	2.09						
KC CSO Water Quality Assessment	KI-1	09/24/97	Total PAH (calc'd)	1.86E+00	2.59						
LDWRI-Surface Sediment Round 1	LDW-SS12	01/17/05	Total PAH (calc'd)	1.83E+00	1.88						
EPA Site Inspection	DR043	08/12/98	Total PAH (calc'd)	1.82E+00	4.48						
LDWRI-Surface Sediment Round 2	LDW-SS3	03/09/05	Total PAH (calc'd)	1.80E+00 J	0.723						
KC CSO Water Quality Assessment	WQAKELL	04/03/97	Total PAH (calc'd)	1.79E+00	2.17						
KC CSO Water Quality Assessment	KI-1	09/24/97	Total PAH (calc'd)	1.74E+00 J	2.44						
KC CSO Water Quality Assessment	KI-1	09/24/97	Total PAH (calc'd)	1.63E+00	2.29						
KC CSO Water Quality Assessment	KI-2	09/24/97	Total PAH (calc'd)	1.57E+00 J	2.06						
LDWRI-Surface Sediment Round 3	LDW-SS313	10/04/06	Total PAH (calc'd)	1.55E+00 J	1.95						
LDWRI-Surface Sediment Round 3	LDW-SS314	10/04/06	Total PAH (calc'd)	1.50E+00 J	2.81						
LDWRI-Surface Sediment Round 2	LDW-SS29	03/14/05	Total PAH (calc'd)	1.38E+00	1.68						
LDWRI-Surface Sediment Round 1	LDW-SS15	01/17/05	Total PAH (calc'd)	1.28E+00	1.79						
EPA Site Inspection	DR036	08/12/98	Total PAH (calc'd)	1.25E+00	3.37						
KC CSO Water Quality Assessment	KI-2	09/24/97	Total PAH (calc'd)	1.23E+00	2.03						
KC CSO Water Quality Assessment	KI-3	09/24/97	Total PAH (calc'd)	1.22E+00	2.24						
Seaboard Lumber-Phase 2 Investigation	SD-17	03/28/96	Total PAH (calc'd)	1.21E+00 J	2.66						
EPA Site Inspection	DR044	08/12/98	Total PAH (calc'd)	1.19E+00	2.22						
EPA Site Inspection	DR045	09/14/98	Total PAH (calc'd)	1.08E+00	2.92						
KC CSO Water Quality Assessment	KI-3	09/24/97	Total PAH (calc'd)	1.06E+00 J	2.145						
LDWRI-Benthic	C3-2	08/27/04	Total PAH (calc'd)	9.20E-01 J	1.31						
KC CSO Water Quality Assessment	KI-3	09/24/97	Total PAH (calc'd)	8.63E-01	2.05						
LDWRI-Surface Sediment Round 3	LDW-SS315	10/04/06	Total PAH (calc'd)	8.10E-01 J	1.74						
LDWRI-Surface Sediment Round 1	LDW-SS33	01/26/05	Total PAH (calc'd)	7.80E-01 J	1.66						
LDWRI-Benthic	C3-1	08/27/04	Total PAH (calc'd)	7.70E-01 J	0.93						
LDWRI-Benthic	B1a	08/13/04	Total PAH (calc'd)	7.20E-01	1.7						
LDWRI-Surface Sediment Round 1	LDW-SS14	01/17/05	Total PAH (calc'd)	6.90E-01	0.79						
LDWRI-Surface Sediment Round 2	LDW-SS34	03/14/05	Total PAH (calc'd)	6.90E-01	1.52						
Seaboard Lumber-Phase 2 Investigation	SD-4	03/28/96	Total PAH (calc'd)	6.71E-01 J	1.85						
EPA Site Inspection	DR044	08/12/98	Total PAH (calc'd)	6.60E-01	2.68						
Seaboard Lumber-Phase 2 Investigation	SD-16	03/28/96	Total PAH (calc'd)	6.13E-01 J	2.99						
Seaboard Lumber-Phase 2 Investigation	SD-3	03/28/96	Total PAH (calc'd)	4.58E-01	2.22						

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
Seaboard Lumber-Phase 2 Investigation	SD-18	03/28/96	Total PAH (calc'd)	4.39E-01	3.11						
Seaboard Lumber-Phase 2 Investigation	SD-5	03/28/96	Total PAH (calc'd)	3.58E-01	2.05						
LDWRI-Benthic	B3a	08/26/04	Total PAH (calc'd)	3.22E-01 J	1.36						
Seaboard Lumber-Phase 2 Investigation	SD-10	03/28/96	Total PAH (calc'd)	3.05E-01	2.57						
Seaboard Lumber-Phase 2 Investigation	SD-15	03/28/96	Total PAH (calc'd)	2.66E-01	1.46						
Seaboard Lumber-Phase 2 Investigation	SD-20	03/28/96	Total PAH (calc'd)	2.61E-01	1.13						
Seaboard Lumber-Phase 2 Investigation	SD-13	03/28/96	Total PAH (calc'd)	2.47E-01	2.64						
LDWRI-Surface Sediment Round 1	LDW-SS23	01/18/05	Total PAH (calc'd)	2.47E-01	1.23						
Seaboard Lumber-Phase 2 Investigation	SD-12	03/28/96	Total PAH (calc'd)	2.45E-01	2.43						
Seaboard Lumber-Phase 2 Investigation	SD-1	03/28/96	Total PAH (calc'd)	2.44E-01	3.4						
Seaboard Lumber-Phase 2 Investigation	SD-11	03/28/96	Total PAH (calc'd)	2.44E-01	2.7						
LDWRI-Benthic	C1	08/26/04	Total PAH (calc'd)	2.42E-01 J	0.47						
Seaboard Lumber-Phase 2 Investigation	SD-2	03/28/96	Total PAH (calc'd)	2.30E-01	1.74						
Seaboard Lumber-Phase 2 Investigation	SD-7	03/28/96	Total PAH (calc'd)	2.25E-01	1.76						
KC CSO Water Quality Assessment	KI-4	09/24/97	Total PAH (calc'd)	2.24E-01	0.71						
KC CSO Water Quality Assessment	KI-4	09/24/97	Total PAH (calc'd)	1.92E-01 J	0.81						
Seaboard Lumber-Phase 2 Investigation	SD-9	03/28/96	Total PAH (calc'd)	1.88E-01	1.68						
Seaboard Lumber-Phase 2 Investigation	SD-14	03/28/96	Total PAH (calc'd)	1.79E-01	1.68						
LDWRI-Benthic	C2-2	08/26/04	Total PAH (calc'd)	1.78E-01 J	1.06						
Seaboard Lumber-Phase 2 Investigation	SD-8	03/28/96	Total PAH (calc'd)	1.73E-01	1.78						
Seaboard Lumber-Phase 2 Investigation	SD-19	03/28/96	Total PAH (calc'd)	1.70E-01	2.75						
Seaboard Lumber-Phase 2 Investigation	SD-6	03/28/96	Total PAH (calc'd)	1.52E-01	1.79						
Seaboard Lumber-Phase 2 Investigation	SD-6	03/28/96	Total PAH (calc'd)	1.52E-01	1.79						
KC CSO Water Quality Assessment	KI-4	09/24/97	Total PAH (calc'd)	1.11E-01	0.91						
EPA Site Inspection	DR076	08/24/98	Total PAH (calc'd)	3.00E-02	0.1						
LDW Dioxin Sampling	LDW-SS509	12/15/09	Total PeCDD	2.32E-04	7.08						
LDW Outfall Sampling	LDW-SS2157-A	03/24/11	Total PeCDD	1.14E-05	1.81						
LDW Dioxin Sampling	LDW-SS514	12/16/09	Total PeCDD	1.13E-05	1.63						
LDW Dioxin Sampling	LDW-SS507	12/16/09	Total PeCDD	1.12E-05	1.79						
LDW Outfall Sampling	LDW-SS2150-A	04/20/11	Total PeCDD	4.36E-06 J	4.42						
LDW Dioxin Sampling	LDW-SS509	12/15/09	Total PeCDF	7.16E-04	7.08						
EPA Site Inspection	DR042	08/12/98	Total PeCDF	6.40E-05	9.23						
LDW Dioxin Sampling	LDW-SS514	12/16/09	Total PeCDF	4.66E-05	1.63						
EPA Site Inspection	DR047	09/14/98	Total PeCDF	3.70E-05	1.4						
LDW Dioxin Sampling	LDW-SS507	12/16/09	Total PeCDF	3.25E-05	1.79						
LDW Outfall Sampling	LDW-SS2157-A	03/24/11	Total PeCDF	2.62E-05	1.81						
EPA Site Inspection	DR046	08/12/98	Total PeCDF	2.50E-05	2.26						
EPA Site Inspection	DR033	08/11/98	Total PeCDF	2.20E-05	1.72						
LDW Outfall Sampling	LDW-SS2150-A	04/20/11	Total PeCDF	7.73E-06	4.42						
LDW Dioxin Sampling	LDW-SS509	12/15/09	Total TCDD	2.05E-04	7.08						
EPA Site Inspection	DR042	08/12/98	Total TCDD	1.60E-05	9.23						
EPA Site Inspection	DR046	08/12/98	Total TCDD	7.20E-06	2.26						
LDW Outfall Sampling	LDW-SS2157-A	03/24/11	Total TCDD	7.00E-06	1.81						
LDW Dioxin Sampling	LDW-SS514	12/16/09	Total TCDD	6.75E-06	1.63						
EPA Site Inspection	DR033	08/11/98	Total TCDD	6.70E-06	1.72						

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
EPA Site Inspection	DR047	09/14/98	Total TCDD	6.70E-06	1.4						
LDW Dioxin Sampling	LDW-SS507	12/16/09	Total TCDD	5.93E-06	1.79						
LDW Outfall Sampling	LDW-SS2150-A	04/20/11	Total TCDD	2.76E-06 J	4.42						
LDW Dioxin Sampling	LDW-SS509	12/15/09	Total TCDF	1.09E-03	7.08						
EPA Site Inspection	DR042	08/12/98	Total TCDF	5.10E-05	9.23						
EPA Site Inspection	DR047	09/14/98	Total TCDF	4.60E-05	1.4						
EPA Site Inspection	DR046	08/12/98	Total TCDF	3.60E-05	2.26						
EPA Site Inspection	DR033	08/11/98	Total TCDF	3.50E-05	1.72						
LDW Dioxin Sampling	LDW-SS514	12/16/09	Total TCDF	2.69E-05	1.63						
LDW Dioxin Sampling	LDW-SS507	12/16/09	Total TCDF	2.39E-05	1.79						
LDW Outfall Sampling	LDW-SS2157-A	03/24/11	Total TCDF	2.31E-05	1.81						
LDW Outfall Sampling	LDW-SS2150-A	04/20/11	Total TCDF	6.75E-06	4.42						
EPA Site Inspection	DR038	09/02/98	Tributyltin as ion	2.50E-01 J							
EPA Site Inspection	DR070	08/12/98	Tributyltin as ion	2.00E-01	1.75						
Harbor Island RI	K-05	09/27/91	Tributyltin as ion	1.90E-01 J	1.6						
EPA Site Inspection	DR068	08/18/98	Tributyltin as ion	1.80E-01	2.36						
Puget Sound Sediment Quality/ NOAA Site Characterization	203	06/22/98	Tributyltin as ion	1.17E-01	1.5						
EPA Site Inspection	DR046	08/12/98	Tributyltin as ion	1.10E-01	2.26						
EPA Site Inspection	DR042	08/12/98	Tributyltin as ion	9.90E-02	9.23						
EPA Site Inspection	DR033	08/11/98	Tributyltin as ion	9.40E-02	1.72						
EPA Site Inspection	DR047	09/14/98	Tributyltin as ion	9.20E-02	1.4						
Ecology SPI	TRI-010	08/08/06	Tributyltin as ion	8.60E-02	2.2						
Ecology SPI	TRI-016	08/08/06	Tributyltin as ion	7.80E-02	2.38						
Ecology SPI	SPI-108	08/11/06	Tributyltin as ion	7.60E-02	1.55						
Ecology SPI	TRI-015T	08/08/06	Tributyltin as ion	7.50E-02	2.16						
LDWRI-Surface Sediment Round 3	LDW-SS310	10/03/06	Tributyltin as ion	7.30E-02	1.63						
EPA Site Inspection	DR067	08/18/98	Tributyltin as ion	5.30E-02	0.82						
LDWRI-Surface Sediment Round 1	LDW-SS15	01/17/05	Tributyltin as ion	2.80E-02	1.79						
LDWRI-Benthic	B2a	08/13/04	Tributyltin as ion	2.20E-02	1.97						
LDWRI-Surface Sediment Round 2	LDW-SS3	03/09/05	Tributyltin as ion	9.40E-03	0.723						
LDWRI-Surface Sediment Round 1	LDW-SS28	01/24/05	Tributyltin as ion	7.50E-03	1.22						
LDWRI-Surface Sediment Round 2	LDW-SS16	03/08/05	Tributyltin as ion	5.50E-03	2.11						
LDWRI-Surface Sediment Round 2	LDW-SS34	03/14/05	Tributyltin as ion	5.40E-03	1.52						
LDWRI-Benthic	C2-1	08/26/04	Tributyltin as ion	4.30E-03	1.82						
LDWRI-Benthic	B3a	08/26/04	Tributyltin as ion	2.10E-03	1.36						
LDWRI-Benthic	C2-2	08/26/04	Tributyltin as ion	1.20E-03 J	1.06						
LDWRI-Benthic	C3-1	08/27/04	Tributyltin as ion	7.40E-04 J	0.93						
LDWRI-Benthic	C3-2	08/27/04	Tributyltin as ion	3.90E-04 J	1.31						
LDWRI-Benthic	B1a	08/13/04	Tributyltin as ion	3.50E-04 J	1.7						
LDWRI-Benthic	C1	08/26/04	Tributyltin as ion	2.80E-04 J	0.47						
EPA Site Inspection	DR038	09/02/98	Vanadium	8.70E+01	2.62						
LDWRI-Surface Sediment Round 1	LDW-SS10	01/17/05	Vanadium	7.89E+01	1.63						

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
EPA Site Inspection	DR078	08/24/98	Vanadium	7.80E+01	2.07						
LDWRI-Surface Sediment Round 2	LDW-SS16	03/08/05	Vanadium	7.76E+01	2.11						
LDWRI-Surface Sediment Round 1	LDW-SS36	01/24/05	Vanadium	7.76E+01	1.89						
LDWRI-Surface Sediment Round 2	LDW-SS19	03/08/05	Vanadium	7.45E+01	2.07						
LDWRI-Surface Sediment Round 1	LDW-SS15	01/17/05	Vanadium	7.42E+01	1.79						
LDWRI-Surface Sediment Round 3	LDW-SS315	10/04/06	Vanadium	7.40E+01	1.74						
EPA Site Inspection	DR079	08/24/98	Vanadium	7.20E+01	2.18						
EPA Site Inspection	DR037	08/18/98	Vanadium	7.10E+01	2.02						
LDWRI-Surface Sediment Round 3	LDW-SS311	10/03/06	Vanadium	7.07E+01	4.36						
EPA Site Inspection	DR080	08/24/98	Vanadium	7.00E+01	1.82						
EPA Site Inspection	DR039	08/12/98	Vanadium	6.90E+01	2.43						
EPA Site Inspection	DR044	08/12/98	Vanadium	6.90E+01	2.22						
EPA Site Inspection	DR068	08/18/98	Vanadium	6.80E+01	2.36						
EPA Site Inspection	DR041	08/12/98	Vanadium	6.70E+01	2.43						
EPA Site Inspection	DR077	08/24/98	Vanadium	6.70E+01	1.61						
LDWRI-Surface Sediment Round 2	LDW-SS29	03/14/05	Vanadium	6.67E+01	1.68						
EPA Site Inspection	DR042	08/12/98	Vanadium	6.50E+01	9.23						
EPA Site Inspection	DR069	08/18/98	Vanadium	6.50E+01	1.92						
EPA Site Inspection	DR048	08/12/98	Vanadium	6.20E+01	2.03						
EPA Site Inspection	DR066	08/18/98	Vanadium	6.20E+01	2.25						
EPA Site Inspection	DR035	08/11/98	Vanadium	6.10E+01	2.29						
EPA Site Inspection	DR044	08/12/98	Vanadium	6.10E+01	2.68						
EPA Site Inspection	DR040	08/12/98	Vanadium	6.00E+01	4.69						
LDWRI-Surface Sediment Round 3	LDW-SS309	10/03/06	Vanadium	5.96E+01	2.02						
LDWRI-Surface Sediment Round 3	LDW-SS310	10/03/06	Vanadium	5.94E+01	1.63						
LDWRI-Surface Sediment Round 1	LDW-SS12	01/17/05	Vanadium	5.93E+01	1.88						
EPA Site Inspection	DR034	08/11/98	Vanadium	5.60E+01	1.84						
LDWRI-Surface Sediment Round 3	LDW-SS314	10/04/06	Vanadium	5.58E+01	2.81						
LDWRI-Surface Sediment Round 3	LDW-SS308	10/03/06	Vanadium	5.46E+01	1.86						
Puget Sound Sediment Quality/ NOAA Site Characterization	203	06/22/98	Vanadium	5.40E+01	1.5						
EPA Site Inspection	DR047	09/14/98	Vanadium	5.00E+01	1.4						
LDWRI-Surface Sediment Round 1	LDW-SS28	01/24/05	Vanadium	4.94E+01	1.22						
EPA Site Inspection	DR070	08/12/98	Vanadium	4.90E+01	1.75						
LDWRI-Benthic	B2a	08/13/04	Vanadium	4.89E+01	1.97						
EPA Site Inspection	DR044	08/12/98	Vanadium	4.80E+01	2.08						
EPA Site Inspection	DR045	09/14/98	Vanadium	4.80E+01	2.92						
EPA Site Inspection	DR046	08/12/98	Vanadium	4.80E+01	2.26						
LDWRI-Surface Sediment Round 2	LDW-SSC1	03/15/05	Vanadium	4.72E+01	0.625						
LDWRI-Surface Sediment Round 2	LDW-SS9	03/14/05	Vanadium	4.62E+01	1.79						
EPA Site Inspection	DR032	08/11/98	Vanadium	4.60E+01	1.79						
EPA Site Inspection	DR043	08/12/98	Vanadium	4.60E+01	4.48						
LDWRI-Surface Sediment Round 2	LDW-SS24	03/14/05	Vanadium	4.60E+01	5.99						

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
LDWRI-Benthic	B1a	08/13/04	Vanadium	4.57E+01	1.7						
LDWRI-Benthic	C2-1	08/26/04	Vanadium	4.47E+01	1.82						
LDWRI-Benthic	C1	08/26/04	Vanadium	4.42E+01	0.47						
LDWRI-Benthic	C2-2	08/26/04	Vanadium	4.37E+01	1.06						
LDWRI-Surface Sediment Round 3	LDW-SS306	10/03/06	Vanadium	4.36E+01	0.284						
LDWRI-Surface Sediment Round 1	LDW-SS14	01/17/05	Vanadium	4.31E+01	0.79						
LDWRI-Surface Sediment Round 1	LDW-SS33	01/26/05	Vanadium	4.24E+01	1.66						
LDWRI-Surface Sediment Round 1	LDW-SS23	01/18/05	Vanadium	4.16E+01	1.23						
LDWRI-Benthic	B3a	08/26/04	Vanadium	4.15E+01	1.36						
EPA Site Inspection	DR033	08/11/98	Vanadium	4.10E+01	1.72						
LDWRI-Surface Sediment Round 3	LDW-SS312	10/03/06	Vanadium	4.09E+01	4.2						
EPA Site Inspection	DR036	08/12/98	Vanadium	4.00E+01	3.37						
LDWRI-Benthic	C3-1	08/27/04	Vanadium	3.96E+01	0.93						
LDWRI-Surface Sediment Round 2	LDW-SS3	03/09/05	Vanadium	3.94E+01	0.723						
LDWRI-Surface Sediment Round 2	LDW-SS34	03/14/05	Vanadium	3.80E+01	1.52						
LDWRI-Benthic	C3-2	08/27/04	Vanadium	3.48E+01	1.31						
LDWRI-Surface Sediment Round 3	LDW-SS313	10/04/06	Vanadium	3.46E+01	1.95						
EPA Site Inspection	DR031	08/11/98	Vanadium	3.40E+01	2.07						
EPA Site Inspection	DR067	08/18/98	Vanadium	3.40E+01	0.82						
EPA Site Inspection	DR076	08/24/98	Vanadium	3.00E+01	0.1						
Terminal 105 Site Assessment	SS1	11/23/93	Xylenes, total	4.30E-03 J	1.9						
Terminal 105 Site Assessment	SS3	11/17/93	Xylenes, total	1.70E-03 J	0.13						
Terminal 105 Site Assessment	SS1	11/23/93	Zinc	5.30E+02 T	1.9		410	960	mg/kg DW	1.3	<1
LDW Outfall Sampling	LDW-SS2149-A	04/20/11	Zinc	4.78E+02 J	9.22		410	960	mg/kg DW	1.2	<1
Seaboard Lumber-Phase 2 Investigation	SD-10	03/28/96	Zinc	4.40E+02	2.57		410	960	mg/kg DW	1.1	<1
LDWRI-Surface Sediment Round 2	LDW-SS24	03/14/05	Zinc	4.35E+02 J	5.99		410	960	mg/kg DW	1.1	<1
Seaboard Lumber-Phase 2 Investigation	SD-17	03/28/96	Zinc	4.27E+02	2.66		410	960	mg/kg DW	1.0	<1
LDWRI-Surface Sediment Round 2	LDW-SS29	03/14/05	Zinc	2.76E+02 J	1.68		410	960	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS36	01/24/05	Zinc	2.56E+02	1.89		410	960	mg/kg DW	<1	<1
EPA Site Inspection	DR035	08/11/98	Zinc	2.30E+02	2.29		410	960	mg/kg DW	<1	<1
EPA Site Inspection	DR038	09/02/98	Zinc	2.20E+02	2.62		410	960	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS19	03/08/05	Zinc	2.01E+02	2.07		410	960	mg/kg DW	<1	<1
LDWRI-Benthic	C3-1	08/27/04	Zinc	1.99E+02 J	0.93		410	960	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2148-A	04/20/11	Zinc	1.90E+02 J	5.62		410	960	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2233-U	04/20/11	Zinc	1.90E+02 J	0.38		410	960	mg/kg DW	<1	<1
EPA Site Inspection	DR040	08/12/98	Zinc	1.88E+02	4.69		410	960	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2150-A	04/20/11	Zinc	1.83E+02 J	4.42		410	960	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS16	03/08/05	Zinc	1.81E+02	2.11		410	960	mg/kg DW	<1	<1
Ecology SPI	TRI-016	08/08/06	Zinc	1.80E+02	2.38		410	960	mg/kg DW	<1	<1
EPA Site Inspection	DR031	08/11/98	Zinc	1.72E+02	2.07		410	960	mg/kg DW	<1	<1
EPA Site Inspection	DR044	08/12/98	Zinc	1.71E+02	2.68		410	960	mg/kg DW	<1	<1
Ecology SPI	TRI-015T	08/08/06	Zinc	1.70E+02	2.16		410	960	mg/kg DW	<1	<1
EPA Site Inspection	DR039	08/12/98	Zinc	1.68E+02	2.43		410	960	mg/kg DW	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
EPA Site Inspection	DR042	08/12/98	Zinc	1.68E+02	9.23		410	960	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS10	01/17/05	Zinc	1.62E+02	1.63		410	960	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS311	10/03/06	Zinc	1.60E+02	4.36		410	960	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-3	03/28/96	Zinc	1.60E+02	2.22		410	960	mg/kg DW	<1	<1
Ecology SPI	TRI-010	08/08/06	Zinc	1.60E+02	2.2		410	960	mg/kg DW	<1	<1
EPA Site Inspection	DR068	08/18/98	Zinc	1.56E+02	2.36		410	960	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS15	01/17/05	Zinc	1.56E+02	1.79		410	960	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-11	03/28/96	Zinc	1.55E+02	2.7		410	960	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS12	01/17/05	Zinc	1.54E+02	1.88		410	960	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-12	03/28/96	Zinc	1.52E+02	2.43		410	960	mg/kg DW	<1	<1
EPA Site Inspection	DR041	08/12/98	Zinc	1.51E+02	2.43		410	960	mg/kg DW	<1	<1
EPA Site Inspection	DR077	08/24/98	Zinc	1.51E+02	1.61		410	960	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS28	01/24/05	Zinc	1.50E+02	1.22		410	960	mg/kg DW	<1	<1
LDWRI-Benthic	C3-2	08/27/04	Zinc	1.48E+02 J	1.31		410	960	mg/kg DW	<1	<1
EPA Site Inspection	DR047	09/14/98	Zinc	1.46E+02	1.4		410	960	mg/kg DW	<1	<1
EPA Site Inspection	DR034	08/11/98	Zinc	1.45E+02	1.84		410	960	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS310	10/03/06	Zinc	1.45E+02	1.63		410	960	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS309	10/03/06	Zinc	1.44E+02	2.02		410	960	mg/kg DW	<1	<1
EPA Site Inspection	DR044	08/12/98	Zinc	1.43E+02	2.22		410	960	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SSSWCSO-U	04/08/11	Zinc	1.43E+02 J	1.2		410	960	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS9	03/14/05	Zinc	1.42E+02 J	1.79		410	960	mg/kg DW	<1	<1
EPA Site Inspection	DR078	08/24/98	Zinc	1.39E+02	2.07		410	960	mg/kg DW	<1	<1
EPA Site Inspection	DR070	08/12/98	Zinc	1.38E+02	1.75		410	960	mg/kg DW	<1	<1
EPA Site Inspection	DR033	08/11/98	Zinc	1.37E+02	1.72		410	960	mg/kg DW	<1	<1
EPA Site Inspection	DR079	08/24/98	Zinc	1.37E+02	2.18		410	960	mg/kg DW	<1	<1
EPA Site Inspection	DR037	08/18/98	Zinc	1.36E+02	2.02		410	960	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS308	10/03/06	Zinc	1.35E+02	1.86		410	960	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-13	03/28/96	Zinc	1.34E+02	2.64		410	960	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-5	03/28/96	Zinc	1.33E+02	2.05		410	960	mg/kg DW	<1	<1
EPA Site Inspection	DR069	08/18/98	Zinc	1.32E+02	1.92		410	960	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-1	03/28/96	Zinc	1.32E+02	3.4		410	960	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	KI-1	09/24/97	Zinc	1.30E+02 J	2.59		410	960	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	KI-2	09/24/97	Zinc	1.30E+02 J	2.09		410	960	mg/kg DW	<1	<1
Ecology SPI	SPI-108	08/11/06	Zinc	1.30E+02 J	1.55		410	960	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2233-D	04/20/11	Zinc	1.28E+02 J	0.617		410	960	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	KI-1	09/24/97	Zinc	1.26E+02 J	2.44		410	960	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-4	03/28/96	Zinc	1.25E+02	1.85		410	960	mg/kg DW	<1	<1
EPA Site Inspection	DR043	08/12/98	Zinc	1.23E+02	4.48		410	960	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS312	10/03/06	Zinc	1.22E+02	4.2		410	960	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	KI-1	09/24/97	Zinc	1.21E+02	2.29		410	960	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	KI-2	09/24/97	Zinc	1.21E+02 J	2.06		410	960	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	KI-3	09/24/97	Zinc	1.20E+02 J	2.24		410	960	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2157-A	03/24/11	Zinc	1.20E+02 J	1.81		410	960	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS3	03/09/05	Zinc	1.19E+02	0.723		410	960	mg/kg DW	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
LDW Outfall Sampling	LDW-SSSWCSO-A	04/08/11	Zinc	1.19E+02 J	2.69		410	960	mg/kg DW	<1	<1
EPA Site Inspection	DR048	08/12/98	Zinc	1.18E+02	2.03		410	960	mg/kg DW	<1	<1
EPA Site Inspection	DR066	08/18/98	Zinc	1.18E+02	2.25		410	960	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS315	10/04/06	Zinc	1.17E+02	1.74		410	960	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-8	03/28/96	Zinc	1.17E+02	1.78		410	960	mg/kg DW	<1	<1
EPA Site Inspection	DR080	08/24/98	Zinc	1.15E+02	1.82		410	960	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	KI-3	09/24/97	Zinc	1.15E+02 J	2.145		410	960	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-9	03/28/96	Zinc	1.15E+02	1.68		410	960	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	WQAKELL	03/12/97	Zinc	1.14E+02	2.09		410	960	mg/kg DW	<1	<1
Harbor Island RI	K-05	09/27/91	Zinc	1.12E+02	1.6		410	960	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	KI-2	09/24/97	Zinc	1.11E+02	2.03		410	960	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	KI-3	09/24/97	Zinc	1.10E+02 J	2.05		410	960	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS33	01/26/05	Zinc	1.10E+02	1.66		410	960	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-6	03/28/96	Zinc	1.10E+02	1.79		410	960	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	WQAKELL	03/06/97	Zinc	1.10E+02	2.27		410	960	mg/kg DW	<1	<1
EPA Site Inspection	DR032	08/11/98	Zinc	1.08E+02	1.79		410	960	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-16	03/28/96	Zinc	1.08E+02	2.99		410	960	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-6	03/28/96	Zinc	1.07E+02	1.79		410	960	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	WQAKELL	05/01/97	Zinc	1.06E+02	2.03		410	960	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-7	03/28/96	Zinc	1.05E+02	1.76		410	960	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	WQAKELL	04/08/97	Zinc	1.05E+02	2.04		410	960	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	WQAKELL	04/03/97	Zinc	1.04E+02	2.17		410	960	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	WQAKELL	05/08/97	Zinc	1.04E+02	2.05		410	960	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-2	03/28/96	Zinc	1.02E+02	1.74		410	960	mg/kg DW	<1	<1
LDWRI-Benthic	B2a	08/13/04	Zinc	1.01E+02	1.97		410	960	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-14	03/28/96	Zinc	1.00E+02	1.68		410	960	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS306	10/03/06	Zinc	9.80E+01	0.284		410	960	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	WQAKELL	04/17/97	Zinc	9.75E+01	2.07		410	960	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	WQAKELL	04/24/97	Zinc	9.71E+01	2.06		410	960	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS14	01/17/05	Zinc	9.68E+01	0.79		410	960	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	WQAKELL	03/27/97	Zinc	9.61E+01	2.19		410	960	mg/kg DW	<1	<1
EPA Site Inspection	DR044	08/12/98	Zinc	9.60E+01	2.08		410	960	mg/kg DW	<1	<1
Terminal 105 Site Assessment	SS2	11/17/93	Zinc	9.50E+01 T	0.98		410	960	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-18	03/28/96	Zinc	9.45E+01	3.11		410	960	mg/kg DW	<1	<1
Puget Sound Sediment Quality/ NOAA Site Characterization	203	06/22/98	Zinc	9.33E+01	1.5		410	960	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2147-D	03/14/11	Zinc	9.30E+01	0.782		410	960	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2146-A	03/14/11	Zinc	9.10E+01	1.01		410	960	mg/kg DW	<1	<1
EPA Site Inspection	DR045	09/14/98	Zinc	9.00E+01	2.92		410	960	mg/kg DW	<1	<1
EPA Site Inspection	DR046	08/12/98	Zinc	8.90E+01	2.26		410	960	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2144-A	03/14/11	Zinc	8.70E+01	0.849		410	960	mg/kg DW	<1	<1
EPA Site Inspection	DR036	08/12/98	Zinc	8.60E+01	3.37		410	960	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS313	10/04/06	Zinc	8.60E+01	1.95		410	960	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-20	03/28/96	Zinc	8.40E+01	1.13		410	960	mg/kg DW	<1	<1

Table A-1a
Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
										SQS	CSL
Seaboard Lumber-Phase 2 Investigation	SD-15	03/28/96	Zinc	8.04E+01	1.46		410	960	mg/kg DW	<1	<1
LDWRI-Benthic	B1a	08/13/04	Zinc	7.51E+01	1.7		410	960	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2232-U	04/20/11	Zinc	7.30E+01 J	1.63		410	960	mg/kg DW	<1	<1
EPA Site Inspection	DR067	08/18/98	Zinc	6.60E+01	0.82		410	960	mg/kg DW	<1	<1
Seaboard Lumber-Phase 2 Investigation	SD-19	03/28/96	Zinc	5.76E+01	2.75		410	960	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2232-A	04/20/11	Zinc	5.70E+01 J	1.11		410	960	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 3	LDW-SS314	10/04/06	Zinc	5.70E+01	2.81		410	960	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 1	LDW-SS23	01/18/05	Zinc	4.88E+01	1.23		410	960	mg/kg DW	<1	<1
EPA Site Inspection	DR076	08/24/98	Zinc	4.60E+01	0.1		410	960	mg/kg DW	<1	<1
LDW Outfall Sampling	LDW-SS2232-D	04/20/11	Zinc	4.60E+01 J	0.778		410	960	mg/kg DW	<1	<1
LDWRI-Benthic	C2-1	08/26/04	Zinc	4.58E+01 J	1.82		410	960	mg/kg DW	<1	<1
LDWRI-Benthic	C1	08/26/04	Zinc	4.26E+01 J	0.47		410	960	mg/kg DW	<1	<1
LDWRI-Benthic	B3a	08/26/04	Zinc	3.78E+01	1.36		410	960	mg/kg DW	<1	<1
LDWRI-Benthic	C2-2	08/26/04	Zinc	3.64E+01 J	1.06		410	960	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	KI-4	09/24/97	Zinc	3.30E+01 J	0.71		410	960	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SS34	03/14/05	Zinc	3.26E+01 J	1.52		410	960	mg/kg DW	<1	<1
LDWRI-Surface Sediment Round 2	LDW-SSC1	03/15/05	Zinc	3.08E+01	0.625		410	960	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	KI-4	09/24/97	Zinc	3.05E+01 J	0.81		410	960	mg/kg DW	<1	<1
Terminal 105 Site Assessment	SS3	11/17/93	Zinc	2.90E+01 T	0.13		410	960	mg/kg DW	<1	<1
KC CSO Water Quality Assessment	KI-4	09/24/97	Zinc	2.80E+01	0.91		410	960	mg/kg DW	<1	<1

mg/kg - Milligram per kilogram
DW - Dry weight
TOC - Total Organic Carbon
OC - Organic carbon normalized
SQS - SMS Sediment Quality Standard
CSL - SMS Cleanup Screening Level
SMS - Sediment Management Standard (Washington Administrative Code 173-204)

PAHs - Polycyclic aromatic hydrocarbons
SVOCs - Semi-volatile organic compounds
PCB - Polychlorinated biphenyl
J value between the method detection limit and the laboratory reporting limit
TEQ - Toxic Equivalency

Table presents detected chemicals only.
Exceedance factors are the ratio of the detected concentrations to the CSL or SQS; exceedance factors are shown only if they are greater than 1.
Sampling events are listed in Table 2.

[a] Due to the lack of TOC data or TOC in this sample, results were compared to the Lowest Apparent Effects Threshold (LAET) or the second LAET (2LAET) value rather than the SQS and/or CSL. The LAET is functionally equivalent to the SQS and the 2LAET is functionally equivalent to the CSL. OC-normalization is not considered to be appropriate for when TOC concentrations are less than or equal to 0.5 percent or greater than or equal to 4.0 percent.

Table A-1b
Comparison of Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area
to Lower Duwamish Waterway Background Levels

Event Name	Location Name	Date Collected	Chemical	Conc'n	Units	LDW Back-ground	Units	Exceedance Factor
Terminal 105 Site Assessment	SS1	11/23/93	Arsenic	38 T	mg/kg DW	7.3	mg/kg DW	5.2
LDW Outfall Sampling	LDW-SS2150-A	04/20/11	Arsenic	36	mg/kg DW	7.3	mg/kg DW	4.9
LDW Outfall Sampling	LDW-SS2148-A	04/20/11	Arsenic	32	mg/kg DW	7.3	mg/kg DW	4.4
LDW Outfall Sampling	LDW-SSSWCSO-U	04/08/11	Arsenic	30 J	mg/kg DW	7.3	mg/kg DW	4.1
Seaboard Lumber-Phase 2 Investigation	SD-17	03/28/96	Arsenic	29	mg/kg DW	7.3	mg/kg DW	4.0
KC CSO Water Quality Assessment	KI-1	09/24/97	Arsenic	23	mg/kg DW	7.3	mg/kg DW	3.2
LDW Outfall Sampling	LDW-SS2233-D	04/20/11	Arsenic	22	mg/kg DW	7.3	mg/kg DW	3.0
KC CSO Water Quality Assessment	WQAKELL	05/08/97	Arsenic	22	mg/kg DW	7.3	mg/kg DW	3.0
EPA Site Inspection	DR036	08/12/98	Arsenic	21.9 J	mg/kg DW	7.3	mg/kg DW	3.0
KC CSO Water Quality Assessment	KI-1	09/24/97	Arsenic	21.5	mg/kg DW	7.3	mg/kg DW	2.9
LDWRI-Surface Sediment Round 2	LDW-SS24	03/14/05	Arsenic	20.7	mg/kg DW	7.3	mg/kg DW	2.8
LDWRI-Surface Sediment Round 2	LDW-SS29	03/14/05	Arsenic	20.2	mg/kg DW	7.3	mg/kg DW	2.8
KC CSO Water Quality Assessment	KI-1	09/24/97	Arsenic	20	mg/kg DW	7.3	mg/kg DW	2.7
LDW Outfall Sampling	LDW-SS2144-A	03/14/11	Arsenic	20	mg/kg DW	7.3	mg/kg DW	2.7
LDW Outfall Sampling	LDW-SS2157-A	03/24/11	Arsenic	20 J	mg/kg DW	7.3	mg/kg DW	2.7
LDW Outfall Sampling	LDW-SSSWCSO-A	04/08/11	Arsenic	20 J	mg/kg DW	7.3	mg/kg DW	2.7
LDWRI-Surface Sediment Round 3	LDW-SS311	10/03/06	Arsenic	19.2	mg/kg DW	7.3	mg/kg DW	2.6
KC CSO Water Quality Assessment	KI-3	09/24/97	Arsenic	19	mg/kg DW	7.3	mg/kg DW	2.6
KC CSO Water Quality Assessment	KI-3	09/24/97	Arsenic	18.5	mg/kg DW	7.3	mg/kg DW	2.5
EPA Site Inspection	DR042	08/12/98	Arsenic	18.2 J	mg/kg DW	7.3	mg/kg DW	2.5
LDW Dioxin Sampling	LDW-SS509	12/15/09	Arsenic	18.1	mg/kg DW	7.3	mg/kg DW	2.5
KC CSO Water Quality Assessment	KI-3	09/24/97	Arsenic	18	mg/kg DW	7.3	mg/kg DW	2.5
LDWRI-Surface Sediment Round 1	LDW-SS36	01/24/05	Arsenic	18	mg/kg DW	7.3	mg/kg DW	2.5
KC CSO Water Quality Assessment	WQAKELL	05/01/97	Arsenic	18	mg/kg DW	7.3	mg/kg DW	2.5
EPA Site Inspection	DR038	09/02/98	Arsenic	17.2	mg/kg DW	7.3	mg/kg DW	2.4
Seaboard Lumber-Phase 2 Investigation	SD-10	03/28/96	Arsenic	17	mg/kg DW	7.3	mg/kg DW	2.3
Terminal 105 Site Assessment	SS2	11/17/93	Arsenic	17 T	mg/kg DW	7.3	mg/kg DW	2.3
KC CSO Water Quality Assessment	WQAKELL	03/27/97	Arsenic	17	mg/kg DW	7.3	mg/kg DW	2.3
KC CSO Water Quality Assessment	WQAKELL	04/03/97	Arsenic	17	mg/kg DW	7.3	mg/kg DW	2.3
KC CSO Water Quality Assessment	WQAKELL	04/08/97	Arsenic	17	mg/kg DW	7.3	mg/kg DW	2.3
EPA Site Inspection	DR035	08/11/98	Arsenic	16.7	mg/kg DW	7.3	mg/kg DW	2.3
EPA Site Inspection	DR040	08/12/98	Arsenic	16.4 J	mg/kg DW	7.3	mg/kg DW	2.2
Ecology SPI	TRI-016	08/08/06	Arsenic	16.2	mg/kg DW	7.3	mg/kg DW	2.2
KC CSO Water Quality Assessment	KI-2	09/24/97	Arsenic	16	mg/kg DW	7.3	mg/kg DW	2.2
LDWRI-Surface Sediment Round 2	LDW-SS19	03/08/05	Arsenic	16	mg/kg DW	7.3	mg/kg DW	2.2
KC CSO Water Quality Assessment	WQAKELL	03/06/97	Arsenic	16	mg/kg DW	7.3	mg/kg DW	2.2
KC CSO Water Quality Assessment	WQAKELL	03/12/97	Arsenic	16	mg/kg DW	7.3	mg/kg DW	2.2
KC CSO Water Quality Assessment	WQAKELL	04/24/97	Arsenic	16	mg/kg DW	7.3	mg/kg DW	2.2
EPA Site Inspection	DR039	08/12/98	Arsenic	15.9 J	mg/kg DW	7.3	mg/kg DW	2.2
EPA Site Inspection	DR077	08/24/98	Arsenic	15.7	mg/kg DW	7.3	mg/kg DW	2.2

Table A-1b
Comparison of Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area
to Lower Duwamish Waterway Background Levels

Event Name	Location Name	Date Collected	Chemical	Conc'n	Units	LDW Back-ground	Units	Exceedance Factor
KC CSO Water Quality Assessment	KI-2	09/24/97	Arsenic	15.5	mg/kg DW	7.3	mg/kg DW	2.1
EPA Site Inspection	DR031	08/11/98	Arsenic	15.2	mg/kg DW	7.3	mg/kg DW	2.1
LDWRI-Surface Sediment Round 2	LDW-SS16	03/08/05	Arsenic	15.2	mg/kg DW	7.3	mg/kg DW	2.1
EPA Site Inspection	DR079	08/24/98	Arsenic	15.1	mg/kg DW	7.3	mg/kg DW	2.1
KC CSO Water Quality Assessment	KI-2	09/24/97	Arsenic	15	mg/kg DW	7.3	mg/kg DW	2.1
LDWRI-Surface Sediment Round 2	LDW-SS9	03/14/05	Arsenic	14.9	mg/kg DW	7.3	mg/kg DW	2.0
EPA Site Inspection	DR078	08/24/98	Arsenic	14.1	mg/kg DW	7.3	mg/kg DW	1.9
EPA Site Inspection	DR044	08/12/98	Arsenic	14	mg/kg DW	7.3	mg/kg DW	1.9
LDW Outfall Sampling	LDW-SS2146-A	03/14/11	Arsenic	14	mg/kg DW	7.3	mg/kg DW	1.9
Seaboard Lumber-Phase 2 Investigation	SD-1	03/28/96	Arsenic	14	mg/kg DW	7.3	mg/kg DW	1.9
KC CSO Water Quality Assessment	WQAKELL	04/17/97	Arsenic	14	mg/kg DW	7.3	mg/kg DW	1.9
LDWRI-Surface Sediment Round 3	LDW-SS315	10/04/06	Arsenic	13.7	mg/kg DW	7.3	mg/kg DW	1.9
Ecology SPI	TRI-015T	08/08/06	Arsenic	13.6	mg/kg DW	7.3	mg/kg DW	1.9
EPA Site Inspection	DR041	08/12/98	Arsenic	13.1 J	mg/kg DW	7.3	mg/kg DW	1.8
LDWRI-Surface Sediment Round 3	LDW-SS312	10/03/06	Arsenic	13.1	mg/kg DW	7.3	mg/kg DW	1.8
LDWRI-Surface Sediment Round 1	LDW-SS12	01/17/05	Arsenic	13	mg/kg DW	7.3	mg/kg DW	1.8
LDW Outfall Sampling	LDW-SS2232-A	04/20/11	Arsenic	13	mg/kg DW	7.3	mg/kg DW	1.8
Seaboard Lumber-Phase 2 Investigation	SD-8	03/28/96	Arsenic	13	mg/kg DW	7.3	mg/kg DW	1.8
Seaboard Lumber-Phase 2 Investigation	SD-18	03/28/96	Arsenic	12.7	mg/kg DW	7.3	mg/kg DW	1.7
EPA Site Inspection	DR080	08/24/98	Arsenic	12.6	mg/kg DW	7.3	mg/kg DW	1.7
EPA Site Inspection	DR047	09/14/98	Arsenic	12.5	mg/kg DW	7.3	mg/kg DW	1.7
EPA Site Inspection	DR068	08/18/98	Arsenic	12.5	mg/kg DW	7.3	mg/kg DW	1.7
LDWRI-Surface Sediment Round 1	LDW-SS28	01/24/05	Arsenic	12.5	mg/kg DW	7.3	mg/kg DW	1.7
EPA Site Inspection	DR033	08/11/98	Arsenic	12.4	mg/kg DW	7.3	mg/kg DW	1.7
LDWRI-Surface Sediment Round 1	LDW-SS10	01/17/05	Arsenic	12.4	mg/kg DW	7.3	mg/kg DW	1.7
Ecology SPI	TRI-010	08/08/06	Arsenic	12.2	mg/kg DW	7.3	mg/kg DW	1.7
LDWRI-Surface Sediment Round 1	LDW-SS14	01/17/05	Arsenic	12.1	mg/kg DW	7.3	mg/kg DW	1.7
EPA Site Inspection	DR044	08/12/98	Arsenic	12	mg/kg DW	7.3	mg/kg DW	1.6
EPA Site Inspection	DR066	08/18/98	Arsenic	12	mg/kg DW	7.3	mg/kg DW	1.6
LDW Outfall Sampling	LDW-SS2232-U	04/20/11	Arsenic	12	mg/kg DW	7.3	mg/kg DW	1.6
Seaboard Lumber-Phase 2 Investigation	SD-13	03/28/96	Arsenic	12	mg/kg DW	7.3	mg/kg DW	1.6
Seaboard Lumber-Phase 2 Investigation	SD-3	03/28/96	Arsenic	12	mg/kg DW	7.3	mg/kg DW	1.6
Seaboard Lumber-Phase 2 Investigation	SD-4	03/28/96	Arsenic	12	mg/kg DW	7.3	mg/kg DW	1.6
Seaboard Lumber-Phase 2 Investigation	SD-5	03/28/96	Arsenic	12	mg/kg DW	7.3	mg/kg DW	1.6
EPA Site Inspection	DR034	08/11/98	Arsenic	11.6	mg/kg DW	7.3	mg/kg DW	1.6
EPA Site Inspection	DR048	08/12/98	Arsenic	11.6 J	mg/kg DW	7.3	mg/kg DW	1.6
LDWRI-Surface Sediment Round 1	LDW-SS15	01/17/05	Arsenic	11.5	mg/kg DW	7.3	mg/kg DW	1.6
LDWRI-Surface Sediment Round 3	LDW-SS310	10/03/06	Arsenic	11.5	mg/kg DW	7.3	mg/kg DW	1.6
LDWRI-Surface Sediment Round 1	LDW-SS33	01/26/05	Arsenic	11.3	mg/kg DW	7.3	mg/kg DW	1.5
EPA Site Inspection	DR043	08/12/98	Arsenic	11.2 J	mg/kg DW	7.3	mg/kg DW	1.5

Table A-1b
Comparison of Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area
to Lower Duwamish Waterway Background Levels

Event Name	Location Name	Date Collected	Chemical	Conc'n	Units	LDW Back-ground	Units	Exceedance Factor
Harbor Island RI	K-05	09/27/91	Arsenic	11.2	mg/kg DW	7.3	mg/kg DW	1.5
Seaboard Lumber-Phase 2 Investigation	SD-11	03/28/96	Arsenic	11	mg/kg DW	7.3	mg/kg DW	1.5
Seaboard Lumber-Phase 2 Investigation	SD-12	03/28/96	Arsenic	11	mg/kg DW	7.3	mg/kg DW	1.5
Seaboard Lumber-Phase 2 Investigation	SD-6	03/28/96	Arsenic	11	mg/kg DW	7.3	mg/kg DW	1.5
Seaboard Lumber-Phase 2 Investigation	SD-9	03/28/96	Arsenic	11	mg/kg DW	7.3	mg/kg DW	1.5
LDWRI-Surface Sediment Round 2	LDW-SS3	03/09/05	Arsenic	10.8	mg/kg DW	7.3	mg/kg DW	1.5
LDWRI-Surface Sediment Round 3	LDW-SS314	10/04/06	Arsenic	10.8	mg/kg DW	7.3	mg/kg DW	1.5
EPA Site Inspection	DR037	08/18/98	Arsenic	10.6	mg/kg DW	7.3	mg/kg DW	1.5
EPA Site Inspection	DR076	08/24/98	Arsenic	10.6	mg/kg DW	7.3	mg/kg DW	1.5
LDWRI-Surface Sediment Round 3	LDW-SS309	10/03/06	Arsenic	10.6	mg/kg DW	7.3	mg/kg DW	1.5
Ecology SPI	SPI-108	08/11/06	Arsenic	10.6 J	mg/kg DW	7.3	mg/kg DW	1.5
Puget Sound Sediment Quality/ NOAA Site Characterization	203	06/22/98	Arsenic	10.5	mg/kg DW	7.3	mg/kg DW	1.4
Seaboard Lumber-Phase 2 Investigation	SD-6	03/28/96	Arsenic	10.5	mg/kg DW	7.3	mg/kg DW	1.4
EPA Site Inspection	DR069	08/18/98	Arsenic	10.3 J	mg/kg DW	7.3	mg/kg DW	1.4
LDWRI-Surface Sediment Round 3	LDW-SS308	10/03/06	Arsenic	10.1	mg/kg DW	7.3	mg/kg DW	1.4
EPA Site Inspection	DR046	08/12/98	Arsenic	10 J	mg/kg DW	7.3	mg/kg DW	1.4
LDW Outfall Sampling	LDW-SS2147-D	03/14/11	Arsenic	10	mg/kg DW	7.3	mg/kg DW	1.4
LDW Outfall Sampling	LDW-SS2149-A	04/20/11	Arsenic	10	mg/kg DW	7.3	mg/kg DW	1.4
LDW Outfall Sampling	LDW-SS2233-U	04/20/11	Arsenic	10	mg/kg DW	7.3	mg/kg DW	1.4
Seaboard Lumber-Phase 2 Investigation	SD-2	03/28/96	Arsenic	10	mg/kg DW	7.3	mg/kg DW	1.4
Seaboard Lumber-Phase 2 Investigation	SD-7	03/28/96	Arsenic	10	mg/kg DW	7.3	mg/kg DW	1.4
EPA Site Inspection	DR044	08/12/98	Arsenic	9.8 J	mg/kg DW	7.3	mg/kg DW	1.3
EPA Site Inspection	DR070	08/12/98	Arsenic	9.7 J	mg/kg DW	7.3	mg/kg DW	1.3
EPA Site Inspection	DR032	08/11/98	Arsenic	9.4	mg/kg DW	7.3	mg/kg DW	1.3
LDWRI-Benthic	B2a	08/13/04	Arsenic	9.34 J	mg/kg DW	7.3	mg/kg DW	1.3
Seaboard Lumber-Phase 2 Investigation	SD-15	03/28/96	Arsenic	8.8	mg/kg DW	7.3	mg/kg DW	1.2
Seaboard Lumber-Phase 2 Investigation	SD-14	03/28/96	Arsenic	8.1	mg/kg DW	7.3	mg/kg DW	1.1
Seaboard Lumber-Phase 2 Investigation	SD-19	03/28/96	Arsenic	8.1	mg/kg DW	7.3	mg/kg DW	1.1
LDW Outfall Sampling	LDW-SS2232-D	04/20/11	Arsenic	8	mg/kg DW	7.3	mg/kg DW	1.1
KC CSO Water Quality Assessment	KI-4	09/24/97	Arsenic	7.8	mg/kg DW	7.3	mg/kg DW	1.1
EPA Site Inspection	DR045	09/14/98	Arsenic	7.6	mg/kg DW	7.3	mg/kg DW	1.0
EPA Site Inspection	DR067	08/18/98	Arsenic	7.4	mg/kg DW	7.3	mg/kg DW	1.0
Seaboard Lumber-Phase 2 Investigation	SD-16	03/28/96	Arsenic	7	mg/kg DW	7.3	mg/kg DW	<1
LDWRI-Surface Sediment Round 3	LDW-SS313	10/04/06	Arsenic	6.7	mg/kg DW	7.3	mg/kg DW	<1
LDWRI-Benthic	C2-1	08/26/04	Arsenic	5.79	mg/kg DW	7.3	mg/kg DW	<1
LDWRI-Benthic	B3a	08/26/04	Arsenic	5.77 J	mg/kg DW	7.3	mg/kg DW	<1
LDWRI-Surface Sediment Round 3	LDW-SS306	10/03/06	Arsenic	5.1	mg/kg DW	7.3	mg/kg DW	<1
KC CSO Water Quality Assessment	KI-4	09/24/97	Arsenic	5	mg/kg DW	7.3	mg/kg DW	<1
LDWRI-Benthic	C3-1	08/27/04	Arsenic	4.63	mg/kg DW	7.3	mg/kg DW	<1

Table A-1b
Comparison of Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area
to Lower Duwamish Waterway Background Levels

Event Name	Location Name	Date Collected	Chemical	Conc'n	Units	LDW Back-ground	Units	Exceedance Factor
LDWRI-Surface Sediment Round 1	LDW-SS23	01/18/05	Arsenic	4.4	mg/kg DW	7.3	mg/kg DW	<1
Seaboard Lumber-Phase 2 Investigation	SD-20	03/28/96	Arsenic	4.1	mg/kg DW	7.3	mg/kg DW	<1
LDWRI-Benthic	B1a	08/13/04	Arsenic	3.9 J	mg/kg DW	7.3	mg/kg DW	<1
LDWRI-Benthic	C3-2	08/27/04	Arsenic	3.62	mg/kg DW	7.3	mg/kg DW	<1
LDWRI-Benthic	C1	08/26/04	Arsenic	3.53	mg/kg DW	7.3	mg/kg DW	<1
LDWRI-Surface Sediment Round 2	LDW-SSC1	03/15/05	Arsenic	3.5	mg/kg DW	7.3	mg/kg DW	<1
LDWRI-Benthic	C2-2	08/26/04	Arsenic	3.13	mg/kg DW	7.3	mg/kg DW	<1
LDWRI-Surface Sediment Round 2	LDW-SS34	03/14/05	Arsenic	3.1	mg/kg DW	7.3	mg/kg DW	<1
EPA Site Inspection	DR044	08/12/98	Carcinogenic PAHs (calc'd)	11460	ug/kg DW	8.9	ug/kg DW	1288
EPA Site Inspection	DR033	08/11/98	Carcinogenic PAHs (calc'd)	9260	ug/kg DW	8.9	ug/kg DW	1040
EPA Site Inspection	DR038	09/02/98	Carcinogenic PAHs (calc'd)	8370	ug/kg DW	8.9	ug/kg DW	940
EPA Site Inspection	DR040	08/12/98	Carcinogenic PAHs (calc'd)	6920	ug/kg DW	8.9	ug/kg DW	778
EPA Site Inspection	DR047	09/14/98	Carcinogenic PAHs (calc'd)	5540	ug/kg DW	8.9	ug/kg DW	622
LDWRI-Surface Sediment Round 3	LDW-SS312	10/03/06	Carcinogenic PAHs (calc'd)	4200	ug/kg DW	8.9	ug/kg DW	472
EPA Site Inspection	DR035	08/11/98	Carcinogenic PAHs (calc'd)	3850	ug/kg DW	8.9	ug/kg DW	433
EPA Site Inspection	DR037	08/18/98	Carcinogenic PAHs (calc'd)	3650	ug/kg DW	8.9	ug/kg DW	410
EPA Site Inspection	DR048	08/12/98	Carcinogenic PAHs (calc'd)	3510	ug/kg DW	8.9	ug/kg DW	394
EPA Site Inspection	DR031	08/11/98	Carcinogenic PAHs (calc'd)	3420	ug/kg DW	8.9	ug/kg DW	384
LDWRI-Surface Sediment Round 2	LDW-SS24	03/14/05	Carcinogenic PAHs (calc'd)	3000	ug/kg DW	8.9	ug/kg DW	337
LDW Dioxin Sampling	LDW-SS509	12/15/09	Carcinogenic PAHs (calc'd)	2,900 J	ug/kg DW	8.9	ug/kg DW	326
EPA Site Inspection	DR077	08/24/98	Carcinogenic PAHs (calc'd)	2690	ug/kg DW	8.9	ug/kg DW	302
EPA Site Inspection	DR034	08/11/98	Carcinogenic PAHs (calc'd)	2610	ug/kg DW	8.9	ug/kg DW	293
EPA Site Inspection	DR068	08/18/98	Carcinogenic PAHs (calc'd)	2450	ug/kg DW	8.9	ug/kg DW	275
EPA Site Inspection	DR066	08/18/98	Carcinogenic PAHs (calc'd)	2420	ug/kg DW	8.9	ug/kg DW	272
EPA Site Inspection	DR041	08/12/98	Carcinogenic PAHs (calc'd)	2370	ug/kg DW	8.9	ug/kg DW	266
Puget Sound Sediment Quality/ NOAA Site Characterization	203	06/22/98	Carcinogenic PAHs (calc'd)	2123 J	ug/kg DW	8.9	ug/kg DW	239
EPA Site Inspection	DR079	08/24/98	Carcinogenic PAHs (calc'd)	2110	ug/kg DW	8.9	ug/kg DW	237
EPA Site Inspection	DR039	08/12/98	Carcinogenic PAHs (calc'd)	2050	ug/kg DW	8.9	ug/kg DW	230
EPA Site Inspection	DR032	08/11/98	Carcinogenic PAHs (calc'd)	1990	ug/kg DW	8.9	ug/kg DW	224
EPA Site Inspection	DR078	08/24/98	Carcinogenic PAHs (calc'd)	1980	ug/kg DW	8.9	ug/kg DW	222
EPA Site Inspection	DR069	08/18/98	Carcinogenic PAHs (calc'd)	1880	ug/kg DW	8.9	ug/kg DW	211
Harbor Island RI	K-05	09/27/91	Carcinogenic PAHs (calc'd)	1720 J	ug/kg DW	8.9	ug/kg DW	193
EPA Site Inspection	DR042	08/12/98	Carcinogenic PAHs (calc'd)	1700	ug/kg DW	8.9	ug/kg DW	191
EPA Site Inspection	DR070	08/12/98	Carcinogenic PAHs (calc'd)	1650	ug/kg DW	8.9	ug/kg DW	185
LDWRI-Surface Sediment Round 3	LDW-SS311	10/03/06	Carcinogenic PAHs (calc'd)	1500	ug/kg DW	8.9	ug/kg DW	169
EPA Site Inspection	DR080	08/24/98	Carcinogenic PAHs (calc'd)	1430	ug/kg DW	8.9	ug/kg DW	161
EPA Site Inspection	DR067	08/18/98	Carcinogenic PAHs (calc'd)	1400	ug/kg DW	8.9	ug/kg DW	157
EPA Site Inspection	DR046	08/12/98	Carcinogenic PAHs (calc'd)	1310	ug/kg DW	8.9	ug/kg DW	147
KC CSO Water Quality Assessment	WQAKELL	03/06/97	Carcinogenic PAHs (calc'd)	1280	ug/kg DW	8.9	ug/kg DW	144

Table A-1b
Comparison of Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area
to Lower Duwamish Waterway Background Levels

Event Name	Location Name	Date Collected	Chemical	Conc'n	Units	LDW Back-ground	Units	Exceedance Factor
KC CSO Water Quality Assessment	WQAKELL	03/12/97	Carcinogenic PAHs (calc'd)	1209	ug/kg DW	8.9	ug/kg DW	136
LDWRI-Surface Sediment Round 2	LDW-SS9	03/14/05	Carcinogenic PAHs (calc'd)	1200	ug/kg DW	8.9	ug/kg DW	135
KC CSO Water Quality Assessment	WQAKELL	04/17/97	Carcinogenic PAHs (calc'd)	1128	ug/kg DW	8.9	ug/kg DW	127
KC CSO Water Quality Assessment	WQAKELL	05/01/97	Carcinogenic PAHs (calc'd)	1108	ug/kg DW	8.9	ug/kg DW	124
Terminal 105 Site Assessment	SS1	11/23/93	Carcinogenic PAHs (calc'd)	1080	ug/kg DW	8.9	ug/kg DW	121
KC CSO Water Quality Assessment	KI-2	09/24/97	Carcinogenic PAHs (calc'd)	1071	ug/kg DW	8.9	ug/kg DW	120
KC CSO Water Quality Assessment	KI-1	09/24/97	Carcinogenic PAHs (calc'd)	1019	ug/kg DW	8.9	ug/kg DW	114
KC CSO Water Quality Assessment	WQAKELL	04/03/97	Carcinogenic PAHs (calc'd)	979	ug/kg DW	8.9	ug/kg DW	110
KC CSO Water Quality Assessment	KI-1	09/24/97	Carcinogenic PAHs (calc'd)	963.5 J	ug/kg DW	8.9	ug/kg DW	108
EPA Site Inspection	DR043	08/12/98	Carcinogenic PAHs (calc'd)	910	ug/kg DW	8.9	ug/kg DW	102
LDW Outfall Sampling	LDW-SS2148-A	04/20/11	Carcinogenic PAHs (calc'd)	910	ug/kg DW	8.9	ug/kg DW	102
KC CSO Water Quality Assessment	KI-1	09/24/97	Carcinogenic PAHs (calc'd)	908	ug/kg DW	8.9	ug/kg DW	102
KC CSO Water Quality Assessment	KI-2	09/24/97	Carcinogenic PAHs (calc'd)	862.25 J	ug/kg DW	8.9	ug/kg DW	97
Ecology SPI	TRI-015T	08/08/06	Carcinogenic PAHs (calc'd)	690	ug/kg DW	8.9	ug/kg DW	78
Ecology SPI	TRI-010	08/08/06	Carcinogenic PAHs (calc'd)	670	ug/kg DW	8.9	ug/kg DW	75
LDWRI-Surface Sediment Round 3	LDW-SS310	10/03/06	Carcinogenic PAHs (calc'd)	640	ug/kg DW	8.9	ug/kg DW	72
KC CSO Water Quality Assessment	KI-3	09/24/97	Carcinogenic PAHs (calc'd)	628	ug/kg DW	8.9	ug/kg DW	71
Seaboard Lumber-Phase 2 Investigation	SD-17	03/28/96	Carcinogenic PAHs (calc'd)	624.03 J	ug/kg DW	8.9	ug/kg DW	70
EPA Site Inspection	DR045	09/14/98	Carcinogenic PAHs (calc'd)	610	ug/kg DW	8.9	ug/kg DW	69
KC CSO Water Quality Assessment	KI-2	09/24/97	Carcinogenic PAHs (calc'd)	607	ug/kg DW	8.9	ug/kg DW	68
Ecology SPI	SPI-108	08/11/06	Carcinogenic PAHs (calc'd)	600	ug/kg DW	8.9	ug/kg DW	67
LDWRI-Surface Sediment Round 3	LDW-SS309	10/03/06	Carcinogenic PAHs (calc'd)	580	ug/kg DW	8.9	ug/kg DW	65
EPA Site Inspection	DR036	08/12/98	Carcinogenic PAHs (calc'd)	570	ug/kg DW	8.9	ug/kg DW	64
EPA Site Inspection	DR044	08/12/98	Carcinogenic PAHs (calc'd)	560	ug/kg DW	8.9	ug/kg DW	63
LDWRI-Surface Sediment Round 3	LDW-SS308	10/03/06	Carcinogenic PAHs (calc'd)	560	ug/kg DW	8.9	ug/kg DW	63
KC CSO Water Quality Assessment	KI-3	09/24/97	Carcinogenic PAHs (calc'd)	527.25 J	ug/kg DW	8.9	ug/kg DW	59
LDW Outfall Sampling	LDW-SSSWCSO-U	04/08/11	Carcinogenic PAHs (calc'd)	520	ug/kg DW	8.9	ug/kg DW	58
LDWRI-Surface Sediment Round 2	LDW-SS16	03/08/05	Carcinogenic PAHs (calc'd)	490	ug/kg DW	8.9	ug/kg DW	55
LDWRI-Surface Sediment Round 1	LDW-SS10	01/17/05	Carcinogenic PAHs (calc'd)	480	ug/kg DW	8.9	ug/kg DW	54
LDWRI-Surface Sediment Round 1	LDW-SS36	01/24/05	Carcinogenic PAHs (calc'd)	450	ug/kg DW	8.9	ug/kg DW	51
LDW Outfall Sampling	LDW-SS2149-A	04/20/11	Carcinogenic PAHs (calc'd)	440	ug/kg DW	8.9	ug/kg DW	49
Ecology SPI	TRI-016	08/08/06	Carcinogenic PAHs (calc'd)	440	ug/kg DW	8.9	ug/kg DW	49
LDWRI-Surface Sediment Round 2	LDW-SS19	03/08/05	Carcinogenic PAHs (calc'd)	410	ug/kg DW	8.9	ug/kg DW	46
KC CSO Water Quality Assessment	KI-3	09/24/97	Carcinogenic PAHs (calc'd)	398	ug/kg DW	8.9	ug/kg DW	45
LDWRI-Benthic	B2a	08/13/04	Carcinogenic PAHs (calc'd)	390	ug/kg DW	8.9	ug/kg DW	44
LDW Outfall Sampling	LDW-SSSWCSO-A	04/08/11	Carcinogenic PAHs (calc'd)	360	ug/kg DW	8.9	ug/kg DW	40
LDW Outfall Sampling	LDW-SS2157-A	03/24/11	Carcinogenic PAHs (calc'd)	330	ug/kg DW	8.9	ug/kg DW	37
Terminal 105 Site Assessment	SS2	11/17/93	Carcinogenic PAHs (calc'd)	292	ug/kg DW	8.9	ug/kg DW	33
Seaboard Lumber-Phase 2 Investigation	SD-3	03/28/96	Carcinogenic PAHs (calc'd)	270.84	ug/kg DW	8.9	ug/kg DW	30
Seaboard Lumber-Phase 2 Investigation	SD-16	03/28/96	Carcinogenic PAHs (calc'd)	267.3	ug/kg DW	8.9	ug/kg DW	30

Table A-1b
Comparison of Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area
to Lower Duwamish Waterway Background Levels

Event Name	Location Name	Date Collected	Chemical	Conc'n	Units	LDW Back-ground	Units	Exceedance Factor
Seaboard Lumber-Phase 2 Investigation	SD-4	03/28/96	Carcinogenic PAHs (calc'd)	251.78	ug/kg DW	8.9	ug/kg DW	28
EPA Site Inspection	DR044	08/12/98	Carcinogenic PAHs (calc'd)	250	ug/kg DW	8.9	ug/kg DW	28
LDWRI-Surface Sediment Round 2	LDW-SS3	03/09/05	Carcinogenic PAHs (calc'd)	230	ug/kg DW	8.9	ug/kg DW	26
LDWRI-Benthic	C2-1	08/26/04	Carcinogenic PAHs (calc'd)	220	ug/kg DW	8.9	ug/kg DW	25
LDW Outfall Sampling	LDW-SS2144-A	03/14/11	Carcinogenic PAHs (calc'd)	210	ug/kg DW	8.9	ug/kg DW	24
LDWRI-Surface Sediment Round 1	LDW-SS28	01/24/05	Carcinogenic PAHs (calc'd)	210	ug/kg DW	8.9	ug/kg DW	24
LDWRI-Surface Sediment Round 1	LDW-SS12	01/17/05	Carcinogenic PAHs (calc'd)	200	ug/kg DW	8.9	ug/kg DW	22
LDW Outfall Sampling	LDW-SS2232-U	04/20/11	Carcinogenic PAHs (calc'd)	200	ug/kg DW	8.9	ug/kg DW	22
Seaboard Lumber-Phase 2 Investigation	SD-18	03/28/96	Carcinogenic PAHs (calc'd)	195.3	ug/kg DW	8.9	ug/kg DW	22
Seaboard Lumber-Phase 2 Investigation	SD-5	03/28/96	Carcinogenic PAHs (calc'd)	190.03	ug/kg DW	8.9	ug/kg DW	21
LDWRI-Surface Sediment Round 3	LDW-SS314	10/04/06	Carcinogenic PAHs (calc'd)	184 J	ug/kg DW	8.9	ug/kg DW	21
LDW Outfall Sampling	LDW-SS2233-D	04/20/11	Carcinogenic PAHs (calc'd)	180	ug/kg DW	8.9	ug/kg DW	20
Seaboard Lumber-Phase 2 Investigation	SD-10	03/28/96	Carcinogenic PAHs (calc'd)	177.56	ug/kg DW	8.9	ug/kg DW	20
LDWRI-Surface Sediment Round 2	LDW-SS29	03/14/05	Carcinogenic PAHs (calc'd)	170	ug/kg DW	8.9	ug/kg DW	19
LDWRI-Surface Sediment Round 3	LDW-SS313	10/04/06	Carcinogenic PAHs (calc'd)	170 J	ug/kg DW	8.9	ug/kg DW	19
Seaboard Lumber-Phase 2 Investigation	SD-15	03/28/96	Carcinogenic PAHs (calc'd)	166.14	ug/kg DW	8.9	ug/kg DW	19
Seaboard Lumber-Phase 2 Investigation	SD-1	03/28/96	Carcinogenic PAHs (calc'd)	147.22	ug/kg DW	8.9	ug/kg DW	17
Seaboard Lumber-Phase 2 Investigation	SD-11	03/28/96	Carcinogenic PAHs (calc'd)	140.94	ug/kg DW	8.9	ug/kg DW	16
Seaboard Lumber-Phase 2 Investigation	SD-12	03/28/96	Carcinogenic PAHs (calc'd)	140.44	ug/kg DW	8.9	ug/kg DW	16
LDWRI-Surface Sediment Round 1	LDW-SS15	01/17/05	Carcinogenic PAHs (calc'd)	140	ug/kg DW	8.9	ug/kg DW	16
Seaboard Lumber-Phase 2 Investigation	SD-13	03/28/96	Carcinogenic PAHs (calc'd)	136.48	ug/kg DW	8.9	ug/kg DW	15
Seaboard Lumber-Phase 2 Investigation	SD-2	03/28/96	Carcinogenic PAHs (calc'd)	133.1	ug/kg DW	8.9	ug/kg DW	15
LDWRI-Benthic	C3-1	08/27/04	Carcinogenic PAHs (calc'd)	130	ug/kg DW	8.9	ug/kg DW	15
LDW Outfall Sampling	LDW-SS2147-D	03/14/11	Carcinogenic PAHs (calc'd)	130	ug/kg DW	8.9	ug/kg DW	15
LDW Outfall Sampling	LDW-SS2150-A	04/20/11	Carcinogenic PAHs (calc'd)	130	ug/kg DW	8.9	ug/kg DW	15
Seaboard Lumber-Phase 2 Investigation	SD-7	03/28/96	Carcinogenic PAHs (calc'd)	129.88	ug/kg DW	8.9	ug/kg DW	15
Seaboard Lumber-Phase 2 Investigation	SD-20	03/28/96	Carcinogenic PAHs (calc'd)	121.8	ug/kg DW	8.9	ug/kg DW	14
LDWRI-Benthic	C3-2	08/27/04	Carcinogenic PAHs (calc'd)	110	ug/kg DW	8.9	ug/kg DW	12
LDWRI-Surface Sediment Round 3	LDW-SS315	10/04/06	Carcinogenic PAHs (calc'd)	110 J	ug/kg DW	8.9	ug/kg DW	12
Seaboard Lumber-Phase 2 Investigation	SD-9	03/28/96	Carcinogenic PAHs (calc'd)	108.35	ug/kg DW	8.9	ug/kg DW	12
Terminal 105 Site Assessment	SS3	11/17/93	Carcinogenic PAHs (calc'd)	106	ug/kg DW	8.9	ug/kg DW	12
Seaboard Lumber-Phase 2 Investigation	SD-14	03/28/96	Carcinogenic PAHs (calc'd)	101.12	ug/kg DW	8.9	ug/kg DW	11
Seaboard Lumber-Phase 2 Investigation	SD-8	03/28/96	Carcinogenic PAHs (calc'd)	98.78	ug/kg DW	8.9	ug/kg DW	11
Seaboard Lumber-Phase 2 Investigation	SD-19	03/28/96	Carcinogenic PAHs (calc'd)	89.08	ug/kg DW	8.9	ug/kg DW	10
Seaboard Lumber-Phase 2 Investigation	SD-6	03/28/96	Carcinogenic PAHs (calc'd)	86.26	ug/kg DW	8.9	ug/kg DW	9.7
LDW Outfall Sampling	LDW-SS2146-A	03/14/11	Carcinogenic PAHs (calc'd)	86 J	ug/kg DW	8.9	ug/kg DW	9.7
LDWRI-Surface Sediment Round 1	LDW-SS33	01/26/05	Carcinogenic PAHs (calc'd)	81 J	ug/kg DW	8.9	ug/kg DW	9.1
LDWRI-Surface Sediment Round 1	LDW-SS14	01/17/05	Carcinogenic PAHs (calc'd)	77	ug/kg DW	8.9	ug/kg DW	8.7
LDWRI-Benthic	B1a	08/13/04	Carcinogenic PAHs (calc'd)	74	ug/kg DW	8.9	ug/kg DW	8.3
LDWRI-Surface Sediment Round 2	LDW-SS34	03/14/05	Carcinogenic PAHs (calc'd)	72	ug/kg DW	8.9	ug/kg DW	8.1

Table A-1b
Comparison of Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area
to Lower Duwamish Waterway Background Levels

Event Name	Location Name	Date Collected	Chemical	Conc'n	Units	LDW Back-ground	Units	Exceedance Factor
KC CSO Water Quality Assessment	KI-4	09/24/97	Carcinogenic PAHs (calc'd)	56	ug/kg DW	8.9	ug/kg DW	6.3
KC CSO Water Quality Assessment	KI-4	09/24/97	Carcinogenic PAHs (calc'd)	48.25 J	ug/kg DW	8.9	ug/kg DW	5.4
LDW Outfall Sampling	LDW-SS2232-A	04/20/11	Carcinogenic PAHs (calc'd)	47	ug/kg DW	8.9	ug/kg DW	5.3
LDWRI-Surface Sediment Round 1	LDW-SS23	01/18/05	Carcinogenic PAHs (calc'd)	43	ug/kg DW	8.9	ug/kg DW	4.8
LDWRI-Benthic	C2-2	08/26/04	Carcinogenic PAHs (calc'd)	34 J	ug/kg DW	8.9	ug/kg DW	3.8
LDWRI-Benthic	B3a	08/26/04	Carcinogenic PAHs (calc'd)	30 J	ug/kg DW	8.9	ug/kg DW	3.4
EPA Site Inspection	DR076	08/24/98	Carcinogenic PAHs (calc'd)	30	ug/kg DW	8.9	ug/kg DW	3.4
KC CSO Water Quality Assessment	KI-4	09/24/97	Carcinogenic PAHs (calc'd)	27	ug/kg DW	8.9	ug/kg DW	3.0
LDW Outfall Sampling	LDW-SS2233-U	04/20/11	Carcinogenic PAHs (calc'd)	27 J	ug/kg DW	8.9	ug/kg DW	3.0
LDWRI-Benthic	C1	08/26/04	Carcinogenic PAHs (calc'd)	23 J	ug/kg DW	8.9	ug/kg DW	2.6
Seaboard Lumber-Phase 2 Investigation	SD-6	03/28/96	Carcinogenic PAHs (calc'd)	20	ug/kg DW	8.9	ug/kg DW	2.2
LDW Outfall Sampling	LDW-SS2232-D	04/20/11	Carcinogenic PAHs (calc'd)	14 J	ug/kg DW	8.9	ug/kg DW	1.6
LDW Dioxin Sampling	LDW-SS509	12/15/09	Dioxin/furan TEQ - Mammal - Half DL	74.5 J	ng/kg	1.6	ng/kg	47
LDWRI-Surface Sediment Round 1	LDW-SS36	01/24/05	Dioxin/furan TEQ - Mammal - Half DL	26 J	ng/kg	1.6	ng/kg	16
EPA Site Inspection	DR042	08/12/98	Dioxin/furan TEQ - Mammal - Half DL	16 J	ng/kg	1.6	ng/kg	10
LDW Dioxin Sampling	LDW-SS514	12/16/09	Dioxin/furan TEQ - Mammal - Half DL	14 J	ng/kg	1.6	ng/kg	8.8
LDWRI-Surface Sediment Round 1	LDW-SS28	01/24/05	Dioxin/furan TEQ - Mammal - Half DL	12 J	ng/kg	1.6	ng/kg	7.5
LDW Dioxin Sampling	LDW-SS507	12/16/09	Dioxin/furan TEQ - Mammal - Half DL	11 J	ng/kg	1.6	ng/kg	6.9
EPA Site Inspection	DR047	09/14/98	Dioxin/furan TEQ - Mammal - Half DL	9 J	ng/kg	1.6	ng/kg	5.6
LDW Outfall Sampling	LDW-SS2157-A	03/24/11	Dioxin/furan TEQ - Mammal - Half DL	8.75 J	ng/kg	1.6	ng/kg	5.5
EPA Site Inspection	DR046	08/12/98	Dioxin/furan TEQ - Mammal - Half DL	8 J	ng/kg	1.6	ng/kg	5.0
EPA Site Inspection	DR033	08/11/98	Dioxin/furan TEQ - Mammal - Half DL	6 J	ng/kg	1.6	ng/kg	3.8
LDW Outfall Sampling	LDW-SS2150-A	04/20/11	Dioxin/furan TEQ - Mammal - Half DL	2.22 J	ng/kg	1.6	ng/kg	1.4
LDWRI-Surface Sediment Round 1	LDW-SS14	01/17/05	Dioxin/furan TEQ - Mammal - Half DL	1.61 J	ng/kg	1.6	ng/kg	1.0
EPA Site Inspection	DR044	08/12/98	PCBs (total calc'd)	1932	ug/kg DW	6.5	ug/kg DW	297
LDWRI-Surface Sediment Round 3	LDW-SS312[a]	10/03/06	PCBs (total calc'd)	1010	ug/kg DW	6.5	ug/kg DW	155
EPA Site Inspection	DR040[a]	08/12/98	PCBs (total calc'd)	776	ug/kg DW	6.5	ug/kg DW	119
NOAA Site Characterization	WIT282[a]	11/12/97	PCBs (total calc'd)	770	ug/kg DW	6.5	ug/kg DW	118
NOAA Site Characterization	WIT286	09/15/97	PCBs (total calc'd)	660	ug/kg DW	6.5	ug/kg DW	102
LDW Dioxin Sampling	LDW-SS509[a]	12/15/09	PCBs (total calc'd)	560	ug/kg DW	6.5	ug/kg DW	86
NOAA Site Characterization	WIT290	09/16/97	PCBs (total calc'd)	540	ug/kg DW	6.5	ug/kg DW	83
EPA Site Inspection	DR035	08/11/98	PCBs (total calc'd)	516 J	ug/kg DW	6.5	ug/kg DW	79
Ecology SPI	SPI-108	08/11/06	PCBs (total calc'd)	440 J	ug/kg DW	6.5	ug/kg DW	68
LDWRI-Surface Sediment Round 3	LDW-SS309	10/03/06	PCBs (total calc'd)	370	ug/kg DW	6.5	ug/kg DW	57
LDWRI-Surface Sediment Round 3	LDW-SS310	10/03/06	PCBs (total calc'd)	370	ug/kg DW	6.5	ug/kg DW	57
LDWRI-Surface Sediment Round 3	LDW-SS311[a]	10/03/06	PCBs (total calc'd)	370	ug/kg DW	6.5	ug/kg DW	57
EPA Site Inspection	DR034	08/11/98	PCBs (total calc'd)	347 J	ug/kg DW	6.5	ug/kg DW	53
EPA Site Inspection	DR031	08/11/98	PCBs (total calc'd)	342	ug/kg DW	6.5	ug/kg DW	53
NOAA Site Characterization	WIT288	09/15/97	PCBs (total calc'd)	340	ug/kg DW	6.5	ug/kg DW	52

Table A-1b
Comparison of Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area
to Lower Duwamish Waterway Background Levels

Event Name	Location Name	Date Collected	Chemical	Conc'n	Units	LDW Back-ground	Units	Exceedance Factor
EPA Site Inspection	DR038	09/02/98	PCBs (total calc'd)	336 J	ug/kg DW	6.5	ug/kg DW	52
NOAA Site Characterization	WIT283	09/16/97	PCBs (total calc'd)	330	ug/kg DW	6.5	ug/kg DW	51
NOAA Site Characterization	WIT283	09/16/97	PCBs (total calc'd)	322.5	ug/kg DW	6.5	ug/kg DW	50
LDWRI-Surface Sediment Round 2	LDW-SS16	03/08/05	PCBs (total calc'd)	320	ug/kg DW	6.5	ug/kg DW	49
NOAA Site Characterization	WIT283	09/16/97	PCBs (total calc'd)	320	ug/kg DW	6.5	ug/kg DW	49
NOAA Site Characterization	WST370	09/18/97	PCBs (total calc'd)	300	ug/kg DW	6.5	ug/kg DW	46
LDWRI-Surface Sediment Round 2	LDW-SS24[a]	03/14/05	PCBs (total calc'd)	290	ug/kg DW	6.5	ug/kg DW	45
LDWRI-Surface Sediment Round 3	LDW-SS308	10/03/06	PCBs (total calc'd)	280	ug/kg DW	6.5	ug/kg DW	43
EPA Site Inspection	DR043[a]	08/12/98	PCBs (total calc'd)	270	ug/kg DW	6.5	ug/kg DW	42
EPA Site Inspection	DR044	08/12/98	PCBs (total calc'd)	233	ug/kg DW	6.5	ug/kg DW	36
NOAA Site Characterization	WIT291	09/16/97	PCBs (total calc'd)	230	ug/kg DW	6.5	ug/kg DW	35
EPA Site Inspection	DR033	08/11/98	PCBs (total calc'd)	225 J	ug/kg DW	6.5	ug/kg DW	35
EPA Site Inspection	DR041	08/12/98	PCBs (total calc'd)	222	ug/kg DW	6.5	ug/kg DW	34
LDWRI-Surface Sediment Round 2	LDW-SS19	03/08/05	PCBs (total calc'd)	220	ug/kg DW	6.5	ug/kg DW	34
NOAA Site Characterization	WIT287	09/15/97	PCBs (total calc'd)	210	ug/kg DW	6.5	ug/kg DW	32
Ecology SPI	TRI-015T	08/08/06	PCBs (total calc'd)	210 J	ug/kg DW	6.5	ug/kg DW	32
Puget Sound Sediment Quality/ NOAA Site Characterization	203	06/22/98	PCBs (total calc'd)	207	ug/kg DW	6.5	ug/kg DW	32
LDWRI-Surface Sediment Round 3	LDW-SS315	10/04/06	PCBs (total calc'd)	196	ug/kg DW	6.5	ug/kg DW	30
Ecology SPI	TRI-016	08/08/06	PCBs (total calc'd)	190 J	ug/kg DW	6.5	ug/kg DW	29
EPA Site Inspection	DR079	08/24/98	PCBs (total calc'd)	187 J	ug/kg DW	6.5	ug/kg DW	29
EPA Site Inspection	DR042[a]	08/12/98	PCBs (total calc'd)	182	ug/kg DW	6.5	ug/kg DW	28
EPA Site Inspection	DR039	08/12/98	PCBs (total calc'd)	175	ug/kg DW	6.5	ug/kg DW	27
EPA Site Inspection	DR080	08/24/98	PCBs (total calc'd)	175 J	ug/kg DW	6.5	ug/kg DW	27
LDWRI-Surface Sediment Round 1	LDW-SS12	01/17/05	PCBs (total calc'd)	171 J	ug/kg DW	6.5	ug/kg DW	26
LDWRI-Benthic	B2a	08/13/04	PCBs (total calc'd)	163	ug/kg DW	6.5	ug/kg DW	25
Ecology SPI	TRI-010	08/08/06	PCBs (total calc'd)	159 J	ug/kg DW	6.5	ug/kg DW	24
EPA Site Inspection	DR047	09/14/98	PCBs (total calc'd)	158	ug/kg DW	6.5	ug/kg DW	24
LDW Outfall Sampling	LDW-SS2150-A[a]	04/20/11	PCBs (total calc'd)	150	ug/kg DW	6.5	ug/kg DW	23
NOAA Site Characterization	WST371	09/18/97	PCBs (total calc'd)	150	ug/kg DW	6.5	ug/kg DW	23
EPA Site Inspection	DR032	08/11/98	PCBs (total calc'd)	140 J	ug/kg DW	6.5	ug/kg DW	22
EPA Site Inspection	DR070	08/12/98	PCBs (total calc'd)	136	ug/kg DW	6.5	ug/kg DW	21
EPA Site Inspection	DR044	08/12/98	PCBs (total calc'd)	131	ug/kg DW	6.5	ug/kg DW	20
NOAA Site Characterization	WST374	10/14/97	PCBs (total calc'd)	130	ug/kg DW	6.5	ug/kg DW	20
LDWRI-Surface Sediment Round 1	LDW-SS15	01/17/05	PCBs (total calc'd)	128 J	ug/kg DW	6.5	ug/kg DW	20
LDWRI-Surface Sediment Round 2	LDW-SS29	03/14/05	PCBs (total calc'd)	123	ug/kg DW	6.5	ug/kg DW	19
EPA Site Inspection	DR078	08/24/98	PCBs (total calc'd)	121 J	ug/kg DW	6.5	ug/kg DW	19
EPA Site Inspection	DR077	08/24/98	PCBs (total calc'd)	120 J	ug/kg DW	6.5	ug/kg DW	18
LDW Outfall Sampling	LDW-SSSWCSO-A	04/08/11	PCBs (total calc'd)	120	ug/kg DW	6.5	ug/kg DW	18

Table A-1b
Comparison of Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area
to Lower Duwamish Waterway Background Levels

Event Name	Location Name	Date Collected	Chemical	Conc'n	Units	LDW Back-ground	Units	Exceedance Factor
NOAA Site Characterization	WST358	11/12/97	PCBs (total calc'd)	120	ug/kg DW	6.5	ug/kg DW	18
NOAA Site Characterization	WST372	10/15/97	PCBs (total calc'd)	120	ug/kg DW	6.5	ug/kg DW	18
EPA Site Inspection	DR069	08/18/98	PCBs (total calc'd)	119	ug/kg DW	6.5	ug/kg DW	18
LDWRI-Surface Sediment Round 2	LDW-SS9	03/14/05	PCBs (total calc'd)	119	ug/kg DW	6.5	ug/kg DW	18
LDWRI-Surface Sediment Round 1	LDW-SS28	01/24/05	PCBs (total calc'd)	112	ug/kg DW	6.5	ug/kg DW	17
KC CSO Water Quality Assessment	KI-2	09/24/97	PCBs (total calc'd)	110	ug/kg DW	6.5	ug/kg DW	17
LDW Outfall Sampling	LDW-SSSWCSO-U	04/08/11	PCBs (total calc'd)	110	ug/kg DW	6.5	ug/kg DW	17
EPA Site Inspection	DR045	09/14/98	PCBs (total calc'd)	107	ug/kg DW	6.5	ug/kg DW	16
KC CSO Water Quality Assessment	WQAKELL	03/06/97	PCBs (total calc'd)	102	ug/kg DW	6.5	ug/kg DW	16
NOAA Site Characterization	WST359	09/18/97	PCBs (total calc'd)	100	ug/kg DW	6.5	ug/kg DW	15
NOAA Site Characterization	WST368	09/16/97	PCBs (total calc'd)	100	ug/kg DW	6.5	ug/kg DW	15
LDWRI-Benthic	C2-2	08/26/04	PCBs (total calc'd)	99	ug/kg DW	6.5	ug/kg DW	15
KC CSO Water Quality Assessment	KI-1	09/24/97	PCBs (total calc'd)	98	ug/kg DW	6.5	ug/kg DW	15
KC CSO Water Quality Assessment	WQAKELL	05/01/97	PCBs (total calc'd)	98	ug/kg DW	6.5	ug/kg DW	15
NOAA Site Characterization	WST359	09/18/97	PCBs (total calc'd)	96.625	ug/kg DW	6.5	ug/kg DW	15
NOAA Site Characterization	WST359	09/18/97	PCBs (total calc'd)	95	ug/kg DW	6.5	ug/kg DW	15
NOAA Site Characterization	WST359	09/18/97	PCBs (total calc'd)	94	ug/kg DW	6.5	ug/kg DW	14
EPA Site Inspection	DR068	08/18/98	PCBs (total calc'd)	93 J	ug/kg DW	6.5	ug/kg DW	14
NOAA Site Characterization	WST368	09/16/97	PCBs (total calc'd)	91	ug/kg DW	6.5	ug/kg DW	14
LDW Outfall Sampling	LDW-SS2150-A[a]	04/20/11	PCBs (total calc'd)	90	ug/kg DW	6.5	ug/kg DW	14
EPA Site Inspection	DR048	08/12/98	PCBs (total calc'd)	88	ug/kg DW	6.5	ug/kg DW	14
EPA Site Inspection	DR037	08/18/98	PCBs (total calc'd)	83 J	ug/kg DW	6.5	ug/kg DW	13
EPA Site Inspection	DR046	08/12/98	PCBs (total calc'd)	80	ug/kg DW	6.5	ug/kg DW	12
EPA Site Inspection	DR066	08/18/98	PCBs (total calc'd)	77 J	ug/kg DW	6.5	ug/kg DW	12
LDWRI-Surface Sediment Round 2	LDW-SS3	03/09/05	PCBs (total calc'd)	76	ug/kg DW	6.5	ug/kg DW	12
NOAA Site Characterization	WST373	10/14/97	PCBs (total calc'd)	74	ug/kg DW	6.5	ug/kg DW	11
NOAA Site Characterization	WST368	09/16/97	PCBs (total calc'd)	73	ug/kg DW	6.5	ug/kg DW	11
NOAA Site Characterization	WST366	09/15/97	PCBs (total calc'd)	72	ug/kg DW	6.5	ug/kg DW	11
Harbor Island RI	K-05	09/27/91	PCBs (total calc'd)	71.85 J	ug/kg DW	6.5	ug/kg DW	11
KC CSO Water Quality Assessment	KI-2	09/24/97	PCBs (total calc'd)	69 J	ug/kg DW	6.5	ug/kg DW	11
LDW Outfall Sampling	LDW-SS2233-D	04/20/11	PCBs (total calc'd)	69	ug/kg DW	6.5	ug/kg DW	11
EPA Site Inspection	DR036	08/12/98	PCBs (total calc'd)	66 J	ug/kg DW	6.5	ug/kg DW	10
NOAA Site Characterization	WST363	09/15/97	PCBs (total calc'd)	64	ug/kg DW	6.5	ug/kg DW	9.8
LDWRI-Surface Sediment Round 3	LDW-SS313	10/04/06	PCBs (total calc'd)	63 J	ug/kg DW	6.5	ug/kg DW	9.7
KC CSO Water Quality Assessment	KI-1	09/24/97	PCBs (total calc'd)	62.5 J	ug/kg DW	6.5	ug/kg DW	9.6
LDW Outfall Sampling	LDW-SS2157-A	03/24/11	PCBs (total calc'd)	60	ug/kg DW	6.5	ug/kg DW	9.2
LDWRI-Surface Sediment Round 1	LDW-SS23	01/18/05	PCBs (total calc'd)	60	ug/kg DW	6.5	ug/kg DW	9.2
LDWRI-Benthic	C2-1	08/26/04	PCBs (total calc'd)	56	ug/kg DW	6.5	ug/kg DW	8.6
LDWRI-Benthic	C3-1	08/27/04	PCBs (total calc'd)	52 J	ug/kg DW	6.5	ug/kg DW	8.0
KC CSO Water Quality Assessment	WQAKELL	03/12/97	PCBs (total calc'd)	51	ug/kg DW	6.5	ug/kg DW	7.8

Table A-1b
Comparison of Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area
to Lower Duwamish Waterway Background Levels

Event Name	Location Name	Date Collected	Chemical	Conc'n	Units	LDW Back-ground	Units	Exceedance Factor
LDWRI-Surface Sediment Round 1	LDW-SS14	01/17/05	PCBs (total calc'd)	50 J	ug/kg DW	6.5	ug/kg DW	7.7
LDW Outfall Sampling	LDW-SS2150-A[a]	04/20/11	PCBs (total calc'd)	41	ug/kg DW	6.5	ug/kg DW	6.3
KC CSO Water Quality Assessment	WQAKELL	04/03/97	PCBs (total calc'd)	38	ug/kg DW	6.5	ug/kg DW	5.8
NOAA Site Characterization	WIT292	09/16/97	PCBs (total calc'd)	37	ug/kg DW	6.5	ug/kg DW	5.7
KC CSO Water Quality Assessment	WQAKELL	04/17/97	PCBs (total calc'd)	36	ug/kg DW	6.5	ug/kg DW	5.5
Seaboard Lumber-Phase 2 Investigation	SD-16	03/28/96	PCBs (total calc'd)	35.88	ug/kg DW	6.5	ug/kg DW	5.5
LDWRI-Surface Sediment Round 1	LDW-SS10	01/17/05	PCBs (total calc'd)	31	ug/kg DW	6.5	ug/kg DW	4.8
NOAA Site Characterization	WST367	09/19/97	PCBs (total calc'd)	29	ug/kg DW	6.5	ug/kg DW	4.5
LDW Outfall Sampling	LDW-SS2147-D	03/14/11	PCBs (total calc'd)	28	ug/kg DW	6.5	ug/kg DW	4.3
LDW Outfall Sampling	LDW-SS2233-U[a]	04/20/11	PCBs (total calc'd)	28	ug/kg DW	6.5	ug/kg DW	4.3
LDWRI-Surface Sediment Round 1	LDW-SS33	01/26/05	PCBs (total calc'd)	26	ug/kg DW	6.5	ug/kg DW	4.0
LDWRI-Surface Sediment Round 1	LDW-SS36	01/24/05	PCBs (total calc'd)	24	ug/kg DW	6.5	ug/kg DW	3.7
LDW Outfall Sampling	LDW-SS2146-A	03/14/11	PCBs (total calc'd)	23	ug/kg DW	6.5	ug/kg DW	3.5
LDWRI-Benthic	B3a	08/26/04	PCBs (total calc'd)	22	ug/kg DW	6.5	ug/kg DW	3.4
LDW Outfall Sampling	LDW-SS2144-A	03/14/11	PCBs (total calc'd)	22	ug/kg DW	6.5	ug/kg DW	3.4
LDW Outfall Sampling	LDW-SS2232-A	04/20/11	PCBs (total calc'd)	17	ug/kg DW	6.5	ug/kg DW	2.6
LDW Outfall Sampling	LDW-SS2232-U	04/20/11	PCBs (total calc'd)	17	ug/kg DW	6.5	ug/kg DW	2.6
NOAA Site Characterization	WIT296[a]	09/18/97	PCBs (total calc'd)	17	ug/kg DW	6.5	ug/kg DW	2.6
Seaboard Lumber-Phase 2 Investigation	SD-3	03/28/96	PCBs (total calc'd)	15.53	ug/kg DW	6.5	ug/kg DW	2.4
Seaboard Lumber-Phase 2 Investigation	SD-13	03/28/96	PCBs (total calc'd)	15.04	ug/kg DW	6.5	ug/kg DW	2.3
Seaboard Lumber-Phase 2 Investigation	SD-19	03/28/96	PCBs (total calc'd)	12.1	ug/kg DW	6.5	ug/kg DW	1.9
Seaboard Lumber-Phase 2 Investigation	SD-10	03/28/96	PCBs (total calc'd)	11.81	ug/kg DW	6.5	ug/kg DW	1.8
LDW Outfall Sampling	LDW-SS2232-D	04/20/11	PCBs (total calc'd)	11	ug/kg DW	6.5	ug/kg DW	1.7
NOAA Site Characterization	WIT293	09/18/97	PCBs (total calc'd)	11	ug/kg DW	6.5	ug/kg DW	1.7
Seaboard Lumber-Phase 2 Investigation	SD-9	03/28/96	PCBs (total calc'd)	10.74	ug/kg DW	6.5	ug/kg DW	1.7
Seaboard Lumber-Phase 2 Investigation	SD-11	03/28/96	PCBs (total calc'd)	9.99	ug/kg DW	6.5	ug/kg DW	1.5
Seaboard Lumber-Phase 2 Investigation	SD-12	03/28/96	PCBs (total calc'd)	9.95	ug/kg DW	6.5	ug/kg DW	1.5
Seaboard Lumber-Phase 2 Investigation	SD-1	03/28/96	PCBs (total calc'd)	9.86	ug/kg DW	6.5	ug/kg DW	1.5
Seaboard Lumber-Phase 2 Investigation	SD-2	03/28/96	PCBs (total calc'd)	9.73	ug/kg DW	6.5	ug/kg DW	1.5
NOAA Site Characterization	WIT295[a]	09/16/97	PCBs (total calc'd)	9.1	ug/kg DW	6.5	ug/kg DW	1.4
Seaboard Lumber-Phase 2 Investigation	SD-14	03/28/96	PCBs (total calc'd)	9.06	ug/kg DW	6.5	ug/kg DW	1.4
Seaboard Lumber-Phase 2 Investigation	SD-4	03/28/96	PCBs (total calc'd)	8.69	ug/kg DW	6.5	ug/kg DW	1.3
LDWRI-Surface Sediment Round 3	LDW-SS306[a]	10/03/06	PCBs (total calc'd)	8.4 J	ug/kg DW	6.5	ug/kg DW	1.3
Seaboard Lumber-Phase 2 Investigation	SD-6	03/28/96	PCBs (total calc'd)	8.3	ug/kg DW	6.5	ug/kg DW	1.3
Seaboard Lumber-Phase 2 Investigation	SD-6	03/28/96	PCBs (total calc'd)	8.22	ug/kg DW	6.5	ug/kg DW	1.3
NOAA Site Characterization	WIT289	09/15/97	PCBs (total calc'd)	7.6	ug/kg DW	6.5	ug/kg DW	1.2
Seaboard Lumber-Phase 2 Investigation	SD-5	03/28/96	PCBs (total calc'd)	7.58	ug/kg DW	6.5	ug/kg DW	1.2
Seaboard Lumber-Phase 2 Investigation	SD-8	03/28/96	PCBs (total calc'd)	7.11	ug/kg DW	6.5	ug/kg DW	1.1
Seaboard Lumber-Phase 2 Investigation	SD-7	03/28/96	PCBs (total calc'd)	7.03	ug/kg DW	6.5	ug/kg DW	1.1

Table A-1b
Comparison of Chemicals Detected in Surface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area
to Lower Duwamish Waterway Background Levels

Event Name	Location Name	Date Collected	Chemical	Conc'n	Units	LDW Back-ground	Units	Exceedance Factor
Seaboard Lumber-Phase 2 Investigation	SD-17	03/28/96	PCBs (total calc'd)	6.38	ug/kg DW	6.5	ug/kg DW	<1
NOAA Site Characterization	WIT294	09/16/97	PCBs (total calc'd)	6	ug/kg DW	6.5	ug/kg DW	<1
NOAA Site Characterization	WIT297[a]	09/19/97	PCBs (total calc'd)	5.2	ug/kg DW	6.5	ug/kg DW	<1
NOAA Site Characterization	WIT299[a]	10/14/97	PCBs (total calc'd)	5.2	ug/kg DW	6.5	ug/kg DW	<1
Seaboard Lumber-Phase 2 Investigation	SD-18	03/28/96	PCBs (total calc'd)	4.65	ug/kg DW	6.5	ug/kg DW	<1
Seaboard Lumber-Phase 2 Investigation	SD-20	03/28/96	PCBs (total calc'd)	3.95 J	ug/kg DW	6.5	ug/kg DW	<1
NOAA Site Characterization	WIT298[a]	10/17/97	PCBs (total calc'd)	3.6	ug/kg DW	6.5	ug/kg DW	<1
LDWRI-Benthic	C1[a]	08/26/04	PCBs (total calc'd)	3.1 J	ug/kg DW	6.5	ug/kg DW	<1
Seaboard Lumber-Phase 2 Investigation	SD-15	03/28/96	PCBs (total calc'd)	2.62	ug/kg DW	6.5	ug/kg DW	<1

mg/kg - Milligram per kilogram
ug/kg - Microgram per kilogram
ng/kg - nanogram per kilogram
DW - Dry weight
PAHs - Polycyclic aromatic hydrocarbons
PCB - Polychlorinated biphenyl
J - Estimated value between the method detection limit and the laboratory reporting limit
LDW - Lower Duwamish Waterway
TEQ - Toxic Equivalency

Table presents detected chemicals only.
Exceedance factors are the ratio of the detected concentrations to the LDW Background Level (AECOM 2010 [0030]); exceedance factors are shown only if they are greater than 1.
Sampling events are listed in Table 2.

Table A-2a
Chemicals Detected in Subsurface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Sample Depth (feet)	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
											SQS	CSL
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	1.0 - 2.0	1,2,3,4,6,7,8-HpCDD	7.40E-04	1.7	4.35E-02					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	0.0 - 1.0	1,2,3,4,6,7,8-HpCDD	7.00E-04	2.28	3.07E-02					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	2.0 - 4.0	1,2,3,4,6,7,8-HpCDD	6.71E-04	1.56	4.30E-02					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	0.0 - 1.0	1,2,3,4,6,7,8-HpCDF	1.29E-04	2.28	5.66E-03					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	2.0 - 4.0	1,2,3,4,6,7,8-HpCDF	1.15E-04	1.56	7.37E-03					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	1.0 - 2.0	1,2,3,4,6,7,8-HpCDF	1.10E-04	1.7	6.47E-03					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	0.0 - 1.0	1,2,3,4,7,8,9-HpCDF	1.17E-05	2.28	5.13E-04					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	2.0 - 4.0	1,2,3,4,7,8,9-HpCDF	1.01E-05	1.56	6.47E-04					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	1.0 - 2.0	1,2,3,4,7,8,9-HpCDF	8.85E-06	1.7	5.21E-04					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	0.0 - 1.0	1,2,3,4,7,8-HxCDD	4.14E-06	2.28	1.82E-04					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	1.0 - 2.0	1,2,3,4,7,8-HxCDD	3.68E-06	1.7	2.16E-04					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	2.0 - 4.0	1,2,3,4,7,8-HxCDD	3.65E-06	1.56	2.34E-04					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	0.0 - 1.0	1,2,3,4,7,8-HxCDF	1.88E-05	2.28	8.25E-04					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	2.0 - 4.0	1,2,3,4,7,8-HxCDF	1.39E-05	1.56	8.91E-04					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	1.0 - 2.0	1,2,3,4,7,8-HxCDF	1.30E-05	1.7	7.65E-04					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	0.0 - 1.0	1,2,3,6,7,8-HxCDD	2.42E-05	2.28	1.06E-03					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	2.0 - 4.0	1,2,3,6,7,8-HxCDD	2.26E-05	1.56	1.45E-03					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	1.0 - 2.0	1,2,3,6,7,8-HxCDD	1.99E-05	1.7	1.17E-03					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	0.0 - 1.0	1,2,3,6,7,8-HxCDF	5.25E-06	2.28	2.30E-04					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	2.0 - 4.0	1,2,3,6,7,8-HxCDF	4.24E-06	1.56	2.72E-04					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	1.0 - 2.0	1,2,3,6,7,8-HxCDF	3.81E-06	1.7	2.24E-04					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	0.0 - 1.0	1,2,3,7,8,9-HxCDD	1.49E-05	2.28	6.54E-04					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	1.0 - 2.0	1,2,3,7,8,9-HxCDD	1.40E-05	1.7	8.24E-04					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	2.0 - 4.0	1,2,3,7,8,9-HxCDD	1.32E-05	1.56	8.46E-04					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	0.0 - 1.0	1,2,3,7,8,9-HxCDF	4.21E-07 J	2.28	1.85E-05					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	1.0 - 2.0	1,2,3,7,8,9-HxCDF	3.42E-07 J	1.7	2.01E-05					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	2.0 - 4.0	1,2,3,7,8,9-HxCDF	3.41E-07 J	1.56	2.19E-05					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	0.0 - 1.0	1,2,3,7,8-PeCDD	2.80E-06	2.28	1.23E-04					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	2.0 - 4.0	1,2,3,7,8-PeCDD	2.64E-06	1.56	1.69E-04					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	1.0 - 2.0	1,2,3,7,8-PeCDD	2.01E-06	1.7	1.18E-04					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	0.0 - 1.0	1,2,3,7,8-PeCDF	1.76E-06	2.28	7.72E-05					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	2.0 - 4.0	1,2,3,7,8-PeCDF	1.35E-06	1.56	8.65E-05					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	1.0 - 2.0	1,2,3,7,8-PeCDF	1.28E-06	1.7	7.53E-05					
LDW Subsurface Sediment 2006	LDW-SC11[a]	02/13/06	0.0 - 0.8	1,2,4-Trichlorobenzene	4.50E-03 J	4.23	1.06E-01	0.031	0.051	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	2.0 - 4.5	1,2-Dichlorobenzene	3.60E-03 J	1.65	2.18E-01	2.3	2.3	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	2.0 - 4.5	1,4-Dichlorobenzene	4.10E-03 J	1.65	2.48E-01	3.1	9	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	1.0 - 2.2	1-Methylnaphthalene	4.40E-02	3.93	1.12E+00					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	0.0 - 1.0	2,3,4,6,7,8-HxCDF	3.86E-06	2.28	1.69E-04					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	2.0 - 4.0	2,3,4,6,7,8-HxCDF	3.26E-06	1.56	2.09E-04					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	1.0 - 2.0	2,3,4,6,7,8-HxCDF	2.57E-06	1.7	1.51E-04					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	0.0 - 1.0	2,3,4,7,8-PeCDF	4.59E-06	2.28	2.01E-04					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	2.0 - 4.0	2,3,4,7,8-PeCDF	3.30E-06	1.56	2.12E-04					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	1.0 - 2.0	2,3,4,7,8-PeCDF	2.80E-06	1.7	1.65E-04					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	0.0 - 1.0	2,3,7,8-TCDD	7.25E-07	2.28	3.18E-05					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	2.0 - 4.0	2,3,7,8-TCDD	6.96E-07	1.56	4.46E-05					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	1.0 - 2.0	2,3,7,8-TCDD	5.21E-07	1.7	3.06E-05					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	0.0 - 1.0	2,3,7,8-TCDF	2.21E-06	2.28	9.69E-05					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	2.0 - 4.0	2,3,7,8-TCDF	1.58E-06	1.56	1.01E-04					

Table A-2a
Chemicals Detected in Subsurface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Sample Depth (feet)	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
											SQS	CSL
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	1.0 - 2.0	2,3,7,8-TCDF	1.41E-06	1.7	8.29E-05					
LDW Subsurface Sediment 2006	LDW-SC11[a]	02/13/06	0.0 - 0.8	2,4-Dimethylphenol	2.50E-02 J	4.23	5.91E-01	0.029	0.029	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	1.0 - 2.2	2,4-Dimethylphenol	9.50E-03 J	3.93	2.42E-01	0.029	0.029	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	1.0 - 2.2	2-Methylnaphthalene	5.50E-02	3.93	1.40E+00	38	64	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	0.0 - 1.0	2-Methylnaphthalene	2.30E-02	1.68	1.37E+00	38	64	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	1.0 - 2.2	2-Methylphenol	1.00E-02 J	3.93	2.54E-01	0.063	0.063	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	2.0 - 4.5	2-Methylphenol	5.90E-03	1.65	3.58E-01	0.063	0.063	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	0.0 - 2.0	2-Methylphenol	5.30E-03 J	2.28	2.32E-01	0.063	0.063	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC11[a]	02/13/06	0.0 - 0.8	2-Methylphenol	5.20E-03 J	4.23	1.23E-01	0.063	0.063	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	0.0 - 1.0	2-Methylphenol	4.80E-03 J	2.28	2.11E-01	0.063	0.063	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	1.0 - 2.2	4-Methylphenol	2.40E-02	3.93	6.11E-01	0.67	0.67	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	1.0 - 2.2	Acenaphthene	1.50E-01	3.93	3.82E+00	16	57	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	0.0 - 1.0	Acenaphthene	2.60E-02	1.68	1.55E+00	16	57	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	0.0 - 2.0	Acenaphthene	1.70E-02 J	2.28	7.46E-01	16	57	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	2.0 - 4.5	Acenaphthene	1.60E-02 J	1.65	9.70E-01	16	57	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC11[a]	02/13/06	0.0 - 0.8	Acenaphthylene	2.80E-01	4.23	6.62E+00	1.3	1.3	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	1.0 - 2.2	Acenaphthylene	1.40E-01	3.93	3.56E+00	66	66	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	0.0 - 1.0	Acenaphthylene	6.10E-02	1.68	3.63E+00	66	66	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	1.0 - 2.0	Acenaphthylene	4.80E-02 J	1.7	2.82E+00	66	66	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	0.0 - 1.0	Acenaphthylene	4.60E-02 J	2.28	2.02E+00	66	66	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	0.0 - 2.0	Acenaphthylene	2.80E-02	2.28	1.23E+00	66	66	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	2.2 - 4.0	Acenaphthylene	1.80E-02 J	1.28	1.41E+00	66	66	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	2.0 - 4.5	Acenaphthylene	1.70E-02 J	1.65	1.03E+00	66	66	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	1.0 - 2.2	Anthracene	5.60E-01	3.93	1.42E+01	220	1,200	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC11[a]	02/13/06	0.0 - 0.8	Anthracene	5.00E-01	4.23	1.18E+01	0.96	4.4	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	0.0 - 1.0	Anthracene	3.30E-01	1.68	1.96E+01	220	1,200	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	0.0 - 1.0	Anthracene	1.50E-01	2.28	6.58E+00	220	1,200	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	1.0 - 2.0	Anthracene	1.30E-01	1.7	7.65E+00	220	1,200	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	0.0 - 2.0	Anthracene	1.10E-01	2.28	4.82E+00	220	1,200	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	2.0 - 4.5	Anthracene	9.70E-02	1.65	5.88E+00	220	1,200	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	2.0 - 4.0	Anthracene	6.30E-02	1.56	4.04E+00	220	1,200	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	2.2 - 4.0	Anthracene	6.20E-02	1.28	4.84E+00	220	1,200	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	2.0 - 4.0	Anthracene	4.70E-02	1.58	2.97E+00	220	1,200	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	0.0 - 2.0	Anthracene	4.30E-02 J	1.92	2.24E+00	220	1,200	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	2.0 - 4.5	Aroclor 1242	3.00E-01	1.65	1.82E+01					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	4.0 - 6.0	Aroclor 1242	5.40E-02	1.26	4.29E+00					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	6.0 - 7.0	Aroclor 1248	7.10E-01	1.54	4.61E+01					
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	2.0 - 4.0	Aroclor 1248	6.90E-01	1.58	4.37E+01					
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	3.5 - 4.0	Aroclor 1248	6.50E-01	0.814	7.99E+01					
LDW Subsurface Sediment 2006	LDW-SC11	02/13/06	0.0 - 0.8	Aroclor 1248	5.20E-01	4.23	1.23E+01					
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	2.5 - 3.0	Aroclor 1248	2.30E-01	1.67	1.38E+01					
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	0.0 - 1.0	Aroclor 1248	1.20E-01	1.68	7.14E+00					
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	2.5 - 3.0	Aroclor 1248	1.10E-01	1.37	8.03E+00					
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	0.0 - 2.0	Aroclor 1248	8.20E-02	1.92	4.27E+00					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	0.0 - 1.0	Aroclor 1248	6.50E-02	2.28	2.85E+00					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	1.0 - 2.0	Aroclor 1248	5.90E-02	1.7	3.47E+00					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	2.0 - 4.0	Aroclor 1248	4.30E-02	1.56	2.76E+00					
LDW Subsurface Sediment 2006	LDW-SC11	02/13/06	0.0 - 0.8	Aroclor 1254	1.90E+00	4.23	4.49E+01					

Table A-2a
Chemicals Detected in Subsurface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Sample Depth (feet)	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
											SQS	CSL
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	4.0 - 4.5	Aroclor 1254	1.90E+00	2.23	8.52E+01					
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	2.0 - 2.5	Aroclor 1254	1.30E+00	2.24	5.80E+01					
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	2.0 - 4.0	Aroclor 1254	1.20E+00	1.58	7.59E+01					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	6.0 - 7.0	Aroclor 1254	1.10E+00	1.54	7.14E+01					
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	2.0 - 4.5	Aroclor 1254	9.80E-01	1.65	5.94E+01					
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	3.5 - 4.0	Aroclor 1254	7.00E-01	0.814	8.60E+01					
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	3.5 - 4.0	Aroclor 1254	5.10E-01	1.61	3.17E+01					
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	3.0 - 3.5	Aroclor 1254	3.30E-01	1.58	2.09E+01					
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	2.5 - 3.0	Aroclor 1254	2.70E-01	1.67	1.62E+01					
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	0.0 - 1.0	Aroclor 1254	2.10E-01	1.68	1.25E+01					
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	1.5 - 2.0	Aroclor 1254	2.00E-01	1.98	1.01E+01					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	4.0 - 6.0	Aroclor 1254	2.00E-01	1.26	1.59E+01					
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	4.0 - 6.6	Aroclor 1254	1.70E-01	1.92	8.85E+00					
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	0.0 - 2.0	Aroclor 1254	1.50E-01	1.92	7.81E+00					
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	2.5 - 3.0	Aroclor 1254	1.30E-01	1.37	9.49E+00					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	0.0 - 1.0	Aroclor 1254	1.00E-01	2.28	4.39E+00					
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	3.0 - 3.5	Aroclor 1254	9.20E-02	1.57	5.86E+00					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	2.0 - 4.0	Aroclor 1254	9.20E-02	1.56	5.90E+00					
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	0.0 - 0.5	Aroclor 1254	9.10E-02	2.4	3.79E+00					
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	2.0 - 2.5	Aroclor 1254	9.00E-02	2.25	4.00E+00					
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	0.0 - 2.0	Aroclor 1254	9.00E-02	2.28	3.95E+00					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	1.0 - 2.0	Aroclor 1254	7.90E-02	1.7	4.65E+00					
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	1.0 - 1.5	Aroclor 1254	7.20E-02	1.85	3.89E+00					
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	1.0 - 2.2	Aroclor 1254	6.60E-02	3.93	1.68E+00					
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	0.5 - 1.0	Aroclor 1254	5.80E-02	1.98	2.93E+00					
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	1.0 - 1.5	Aroclor 1254	5.50E-02	0.894	6.15E+00					
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	0.5 - 1.0	Aroclor 1254	5.40E-02	1.91	2.83E+00					
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	1.5 - 2.0	Aroclor 1254	5.10E-02	1.87	2.73E+00					
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	0.0 - 0.5	Aroclor 1254	3.90E-02	1.34	2.91E+00					
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	6.0 - 8.0	Aroclor 1254	4.50E-03 J	0.62	7.26E-01					
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	2.0 - 2.5	Aroclor 1260	7.40E-01 J	2.24	3.30E+01					
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	4.0 - 4.5	Aroclor 1260	7.40E-01	2.23	3.32E+01					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	6.0 - 7.0	Aroclor 1260	6.10E-01	1.54	3.96E+01					
LDW Subsurface Sediment 2006	LDW-SC11	02/13/06	0.0 - 0.8	Aroclor 1260	6.00E-01	4.23	1.42E+01					
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	2.0 - 4.0	Aroclor 1260	5.70E-01	1.58	3.61E+01					
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	2.0 - 4.5	Aroclor 1260	3.60E-01	1.65	2.18E+01					
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	3.5 - 4.0	Aroclor 1260	2.80E-01	1.61	1.74E+01					
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	4.0 - 6.6	Aroclor 1260	2.50E-01	1.92	1.30E+01					
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	3.5 - 4.0	Aroclor 1260	2.40E-01	0.814	2.95E+01					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	4.0 - 6.0	Aroclor 1260	1.90E-01	1.26	1.51E+01					
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	0.0 - 1.0	Aroclor 1260	1.80E-01	1.68	1.07E+01					
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	3.0 - 3.5	Aroclor 1260	1.60E-01	1.58	1.01E+01					
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	2.5 - 3.0	Aroclor 1260	1.30E-01	1.67	7.78E+00					
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	0.0 - 2.0	Aroclor 1260	1.20E-01	1.92	6.25E+00					
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	1.5 - 2.0	Aroclor 1260	1.20E-01	1.98	6.06E+00					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	2.0 - 4.0	Aroclor 1260	1.10E-01	1.56	7.05E+00					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	0.0 - 1.0	Aroclor 1260	1.10E-01	2.28	4.82E+00					
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	2.5 - 3.0	Aroclor 1260	1.10E-01	1.37	8.03E+00					

Table A-2a
Chemicals Detected in Subsurface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Sample Depth (feet)	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
											SQS	CSL
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	1.0 - 2.0	Aroclor 1260	9.50E-02	1.7	5.59E+00					
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	2.0 - 2.5	Aroclor 1260	8.60E-02	2.25	3.82E+00					
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	0.0 - 2.0	Aroclor 1260	8.20E-02	2.28	3.60E+00					
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	0.0 - 0.5	Aroclor 1260	7.60E-02	2.4	3.17E+00					
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	1.0 - 1.5	Aroclor 1260	6.20E-02	1.85	3.35E+00					
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	0.5 - 1.0	Aroclor 1260	4.80E-02	1.98	2.42E+00					
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	3.0 - 3.5	Aroclor 1260	4.60E-02	1.57	2.93E+00					
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	1.0 - 1.5	Aroclor 1260	4.60E-02	0.894	5.15E+00					
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	1.5 - 2.0	Aroclor 1260	4.30E-02	1.87	2.30E+00					
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	0.5 - 1.0	Aroclor 1260	4.30E-02	1.91	2.25E+00					
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	0.0 - 0.5	Aroclor 1260	2.50E-02	1.34	1.87E+00					
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	2.0 - 4.5	Arsenic	4.10E+01	1.65	2.48E+03	57	93	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC11	02/13/06	0.0 - 0.8	Arsenic	2.80E+01	4.23	6.62E+02	57	93	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	2.0 - 4.0	Arsenic	2.40E+01	1.56	1.54E+03	57	93	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	0.0 - 2.0	Arsenic	2.10E+01	2.28	9.21E+02	57	93	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	0.0 - 2.0	Arsenic	2.00E+01	1.92	1.04E+03	57	93	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	1.0 - 2.0	Arsenic	2.00E+01	1.7	1.18E+03	57	93	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	0.0 - 1.0	Arsenic	2.00E+01	2.28	8.77E+02	57	93	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	6.0 - 8.0	Arsenic	2.00E+01	0.62	3.23E+03	57	93	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	2.0 - 4.0	Arsenic	1.90E+01	1.58	1.20E+03	57	93	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	0.0 - 1.0	Arsenic	1.70E+01	1.68	1.01E+03	57	93	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	1.0 - 2.2	Arsenic	1.40E+01	3.93	3.56E+02	57	93	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC11	02/13/06	0.8 - 2.0	Arsenic	9.00E+00	0.647	1.39E+03	57	93	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC11	02/13/06	3.4 - 4.1	Arsenic	9.00E+00	0.178	5.06E+03	57	93	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC11	02/13/06	2.0 - 3.4	Arsenic	7.00E+00	0.397	1.76E+03	57	93	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC11[a]	02/13/06	0.0 - 0.8	Benzo(a)anthracene	3.60E+00	4.23	8.51E+01	1.3	1.6	mg/kg DW	2.8	2.3
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	1.0 - 2.2	Benzo(a)anthracene	1.20E+00	3.93	3.05E+01	110	270	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	0.0 - 1.0	Benzo(a)anthracene	5.00E-01	1.68	2.98E+01	110	270	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	0.0 - 1.0	Benzo(a)anthracene	3.80E-01	2.28	1.67E+01	110	270	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	0.0 - 2.0	Benzo(a)anthracene	2.60E-01	2.28	1.14E+01	110	270	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	2.0 - 4.5	Benzo(a)anthracene	2.00E-01	1.65	1.21E+01	110	270	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	1.0 - 2.0	Benzo(a)anthracene	1.80E-01	1.7	1.06E+01	110	270	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	2.2 - 4.0	Benzo(a)anthracene	1.60E-01	1.28	1.25E+01	110	270	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	2.0 - 4.0	Benzo(a)anthracene	1.50E-01	1.56	9.62E+00	110	270	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	0.0 - 2.0	Benzo(a)anthracene	1.30E-01	1.92	6.77E+00	110	270	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	2.0 - 4.0	Benzo(a)anthracene	8.30E-02	1.58	5.25E+00	110	270	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC11[a]	02/13/06	0.0 - 0.8	Benzo(a)pyrene	3.10E+00	4.23	7.33E+01	1.6	3.0	mg/kg DW	1.9	1.0
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	1.0 - 2.2	Benzo(a)pyrene	1.40E+00	3.93	3.56E+01	99	210	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	0.0 - 1.0	Benzo(a)pyrene	6.40E-01	1.68	3.81E+01	99	210	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	1.0 - 2.0	Benzo(a)pyrene	3.90E-01	1.7	2.29E+01	99	210	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	0.0 - 2.0	Benzo(a)pyrene	3.80E-01 J	2.28	1.67E+01	99	210	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	2.0 - 4.5	Benzo(a)pyrene	3.50E-01	1.65	2.12E+01	99	210	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	0.0 - 1.0	Benzo(a)pyrene	3.00E-01	2.28	1.32E+01	99	210	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	2.2 - 4.0	Benzo(a)pyrene	2.40E-01	1.28	1.88E+01	99	210	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	2.0 - 4.0	Benzo(a)pyrene	2.00E-01	1.56	1.28E+01	99	210	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	0.0 - 2.0	Benzo(a)pyrene	1.90E-01	1.92	9.90E+00	99	210	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	2.0 - 4.0	Benzo(a)pyrene	1.30E-01	1.58	8.23E+00	99	210	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC11[a]	02/13/06	0.0 - 0.8	Benzo(b)fluoranthene	4.10E+00	4.23	9.69E+01	3.2	3.6	mg/kg DW	1.3	1.1

Table A-2a
Chemicals Detected in Subsurface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Sample Depth (feet)	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
											SQS	CSL
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	1.0 - 2.2	Benzo(b)fluoranthene	1.50E+00	3.93	3.82E+01	230	450	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	1.0 - 2.0	Benzo(b)fluoranthene	8.60E-01	1.7	5.06E+01	230	450	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	0.0 - 1.0	Benzo(b)fluoranthene	8.10E-01	1.68	4.82E+01	230	450	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	0.0 - 2.0	Benzo(b)fluoranthene	8.10E-01 J	2.28	3.55E+01	230	450	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	0.0 - 1.0	Benzo(b)fluoranthene	6.10E-01	2.28	2.68E+01	230	450	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	2.0 - 4.5	Benzo(b)fluoranthene	5.90E-01	1.65	3.58E+01	230	450	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	2.0 - 4.0	Benzo(b)fluoranthene	4.50E-01	1.56	2.88E+01	230	450	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	0.0 - 2.0	Benzo(b)fluoranthene	3.30E-01	1.92	1.72E+01	230	450	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	2.2 - 4.0	Benzo(b)fluoranthene	2.90E-01	1.28	2.27E+01	230	450	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	2.0 - 4.0	Benzo(b)fluoranthene	2.00E-01	1.58	1.27E+01	230	450	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC11[a]	02/13/06	0.0 - 0.8	Benzo(g,h,i)perylene	5.20E-01	4.23	1.23E+01	0.67	0.72	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	1.0 - 2.2	Benzo(g,h,i)perylene	3.20E-01	3.93	8.14E+00	31	78	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	0.0 - 1.0	Benzo(g,h,i)perylene	1.60E-01	1.68	9.52E+00	31	78	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	2.2 - 4.0	Benzo(g,h,i)perylene	9.60E-02	1.28	7.50E+00	31	78	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	0.0 - 1.0	Benzo(g,h,i)perylene	8.20E-02	2.28	3.60E+00	31	78	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	0.0 - 2.0	Benzo(g,h,i)perylene	8.20E-02 J	2.28	3.60E+00	31	78	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	1.0 - 2.0	Benzo(g,h,i)perylene	6.80E-02	1.7	4.00E+00	31	78	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	2.0 - 4.0	Benzo(g,h,i)perylene	6.20E-02	1.56	3.97E+00	31	78	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	2.0 - 4.5	Benzo(g,h,i)perylene	6.10E-02	1.65	3.70E+00	31	78	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	0.0 - 2.0	Benzo(g,h,i)perylene	4.50E-02 J	1.92	2.34E+00	31	78	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	2.0 - 4.0	Benzo(g,h,i)perylene	2.60E-02 J	1.58	1.65E+00	31	78	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC11[a]	02/13/06	0.0 - 0.8	Benzo(k)fluoranthene	3.50E+00	4.23	8.27E+01	3.2	3.6	mg/kg DW	1.1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	1.0 - 2.2	Benzo(k)fluoranthene	1.30E+00	3.93	3.31E+01	230	450	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	0.0 - 1.0	Benzo(k)fluoranthene	6.80E-01	1.68	4.05E+01	230	450	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	1.0 - 2.0	Benzo(k)fluoranthene	5.60E-01	1.7	3.29E+01	230	450	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	0.0 - 1.0	Benzo(k)fluoranthene	5.10E-01	2.28	2.24E+01	230	450	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	0.0 - 2.0	Benzo(k)fluoranthene	4.90E-01 J	2.28	2.15E+01	230	450	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	2.0 - 4.5	Benzo(k)fluoranthene	4.20E-01 J	1.65	2.55E+01	230	450	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	2.0 - 4.0	Benzo(k)fluoranthene	3.30E-01	1.56	2.12E+01	230	450	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	0.0 - 2.0	Benzo(k)fluoranthene	3.10E-01	1.92	1.61E+01	230	450	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	2.2 - 4.0	Benzo(k)fluoranthene	2.10E-01	1.28	1.64E+01	230	450	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	2.0 - 4.0	Benzo(k)fluoranthene	1.80E-01	1.58	1.14E+01	230	450	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC11[a]	02/13/06	0.0 - 0.8	Benzofluoranthenes (total-calc'd)	7.60E+00	4.23	1.80E+02	3.2	3.6	mg/kg DW	2.4	2.1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	1.0 - 2.2	Benzofluoranthenes (total-calc'd)	2.80E+00	3.93	7.12E+01	230	450	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	0.0 - 1.0	Benzofluoranthenes (total-calc'd)	1.49E+00	1.68	8.87E+01	230	450	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	1.0 - 2.0	Benzofluoranthenes (total-calc'd)	1.42E+00	1.7	8.35E+01	230	450	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	0.0 - 2.0	Benzofluoranthenes (total-calc'd)	1.30E+00 J	2.28	5.70E+01	230	450	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	0.0 - 1.0	Benzofluoranthenes (total-calc'd)	1.12E+00	2.28	4.91E+01	230	450	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	2.0 - 4.5	Benzofluoranthenes (total-calc'd)	1.01E+00 J	1.65	6.12E+01	230	450	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	2.0 - 4.0	Benzofluoranthenes (total-calc'd)	7.80E-01	1.56	5.00E+01	230	450	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	0.0 - 2.0	Benzofluoranthenes (total-calc'd)	6.40E-01	1.92	3.33E+01	230	450	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	2.2 - 4.0	Benzofluoranthenes (total-calc'd)	5.00E-01	1.28	3.91E+01	230	450	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	2.0 - 4.0	Benzofluoranthenes (total-calc'd)	3.80E-01	1.58	2.41E+01	230	450	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	0.0 - 2.0	Benzoic acid	3.30E-01	2.28	1.45E+01	0.65	0.65	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	2.0 - 4.5	Benzoic acid	2.60E-01	1.65	1.58E+01	0.65	0.65	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	0.0 - 1.0	Benzoic acid	2.10E-01 J	2.28	9.21E+00	0.65	0.65	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC11[a]	02/13/06	3.4 - 4.1	Benzoic acid	1.30E-01	0.178	7.30E+01	0.65	0.65	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC11[a]	02/13/06	0.0 - 0.8	Benzoic acid	1.30E-01	4.23	3.07E+00	0.65	0.65	mg/kg DW	<1	<1

Table A-2a
Chemicals Detected in Subsurface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Sample Depth (feet)	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
											SQS	CSL
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	2.0 - 4.0	Benzoic acid	1.00E-01 J	1.56	6.41E+00	0.65	0.65	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	1.0 - 2.0	Benzoic acid	8.80E-02 J	1.7	5.18E+00	0.65	0.65	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC11	02/13/06	0.8 - 2.0	Benzoic acid	7.70E-02	0.647	1.19E+01	0.65	0.65	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC11[a]	02/13/06	2.0 - 3.4	Benzoic acid	6.60E-02	0.397	1.66E+01	0.65	0.65	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	2.0 - 4.5	Bis(2-ethylhexyl)phthalate	1.10E+00	1.65	6.67E+01	47	78	mg/kg OC	1.4	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	0.0 - 2.0	Bis(2-ethylhexyl)phthalate	4.80E-01	2.28	2.11E+01	47	78	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	0.0 - 1.0	Bis(2-ethylhexyl)phthalate	3.90E-01	1.68	2.32E+01	47	78	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	2.0 - 4.0	Bis(2-ethylhexyl)phthalate	3.80E-01 J	1.58	2.41E+01	47	78	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC11[a]	02/13/06	0.0 - 0.8	Bis(2-ethylhexyl)phthalate	3.10E-01	4.23	7.33E+00	1.3	1.9	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	2.0 - 4.0	Bis(2-ethylhexyl)phthalate	2.70E-01	1.56	1.73E+01	47	78	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	0.0 - 1.0	Bis(2-ethylhexyl)phthalate	2.20E-01	2.28	9.65E+00	47	78	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	0.0 - 2.0	Bis(2-ethylhexyl)phthalate	2.10E-01	1.92	1.09E+01	47	78	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	1.0 - 2.0	Bis(2-ethylhexyl)phthalate	1.40E-01	1.7	8.24E+00	47	78	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	0.0 - 2.0	Butyl benzyl phthalate	5.40E-02	2.28	2.37E+00	4.9	64	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	2.0 - 4.5	Butyl benzyl phthalate	5.20E-02	1.65	3.15E+00	4.9	64	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	0.0 - 1.0	Butyl benzyl phthalate	3.50E-02	1.68	2.08E+00	4.9	64	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	0.0 - 1.0	Butyl benzyl phthalate	3.40E-02	2.28	1.49E+00	4.9	64	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	0.0 - 2.0	Butyl benzyl phthalate	3.20E-02	1.92	1.67E+00	4.9	64	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	1.0 - 2.2	Butyl benzyl phthalate	3.10E-02	3.93	7.89E-01	4.9	64	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC11[a]	02/13/06	0.0 - 0.8	Butyl benzyl phthalate	2.80E-02	4.23	6.62E-01	0.063	0.9	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	2.0 - 4.0	Butyl benzyl phthalate	1.50E-02	1.56	9.62E-01	4.9	64	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	1.0 - 2.0	Butyl benzyl phthalate	1.40E-02	1.7	8.24E-01	4.9	64	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC11	02/13/06	0.0 - 0.8	Cadmium	1.80E+00	4.23	4.26E+01	5.1	6.7	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	2.0 - 4.5	Cadmium	1.80E+00	1.65	1.09E+02	5.1	6.7	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	2.0 - 4.0	Cadmium	1.40E+00	1.58	8.86E+01	5.1	6.7	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	0.0 - 1.0	Cadmium	6.00E-01	1.68	3.57E+01	5.1	6.7	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	1.0 - 2.2	Cadmium	5.00E-01	3.93	1.27E+01	5.1	6.7	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	0.0 - 2.0	Cadmium	4.00E-01	1.92	2.08E+01	5.1	6.7	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC11	02/13/06	0.0 - 0.8	Carcinogenic PAHs - Mammal - Half DL	4.40E+00							
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	1.0 - 2.2	Carcinogenic PAHs - Mammal - Half DL	1.90E+00							
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	0.0 - 1.0	Carcinogenic PAHs - Mammal - Half DL	8.80E-01							
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	1.0 - 2.0	Carcinogenic PAHs - Mammal - Half DL	5.80E-01 J							
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	0.0 - 2.0	Carcinogenic PAHs - Mammal - Half DL	5.60E-01 J							
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	2.0 - 4.5	Carcinogenic PAHs - Mammal - Half DL	4.90E-01 J							
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	0.0 - 1.0	Carcinogenic PAHs - Mammal - Half DL	4.80E-01 J							
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	2.2 - 4.0	Carcinogenic PAHs - Mammal - Half DL	3.30E-01							
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	2.0 - 4.0	Carcinogenic PAHs - Mammal - Half DL	3.10E-01							
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	0.0 - 2.0	Carcinogenic PAHs - Mammal - Half DL	2.90E-01 J							
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	2.0 - 4.0	Carcinogenic PAHs - Mammal - Half DL	1.90E-01 J							
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	6.0 - 8.0	Carcinogenic PAHs - Mammal - Half DL	4.80E-02							
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	2.0 - 4.5	Chromium	6.10E+01	1.65	3.70E+03	260	270	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC11	02/13/06	0.0 - 0.8	Chromium	5.66E+01	4.23	1.34E+03	260	270	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	2.0 - 4.0	Chromium	5.36E+01	1.58	3.39E+03	260	270	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	0.0 - 2.0	Chromium	3.71E+01	2.28	1.63E+03	260	270	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	0.0 - 1.0	Chromium	3.60E+01	2.28	1.58E+03	260	270	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	1.0 - 2.0	Chromium	3.50E+01	1.7	2.06E+03	260	270	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	2.0 - 4.0	Chromium	3.06E+01	1.56	1.96E+03	260	270	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	0.0 - 2.0	Chromium	2.90E+01	1.92	1.51E+03	260	270	mg/kg DW	<1	<1

Table A-2a
Chemicals Detected in Subsurface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Sample Depth (feet)	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
											SQS	CSL
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	0.0 - 1.0	Chromium	2.82E+01	1.68	1.68E+03	260	270	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC11	02/13/06	3.4 - 4.1	Chromium	2.42E+01	0.178	1.36E+04	260	270	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	1.0 - 2.2	Chromium	2.13E+01	3.93	5.42E+02	260	270	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC11	02/13/06	2.0 - 3.4	Chromium	1.57E+01	0.397	3.95E+03	260	270	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC11	02/13/06	0.8 - 2.0	Chromium	1.35E+01	0.647	2.09E+03	260	270	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	6.0 - 8.0	Chromium	1.30E+01	0.62	2.10E+03	260	270	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	2.2 - 4.0	Chromium	1.10E+01	1.28	8.59E+02	260	270	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC11[a]	02/13/06	0.0 - 0.8	Chrysene	4.30E+00	4.23	1.02E+02	1.4	2.8	mg/kg DW	3.1	1.5
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	1.0 - 2.2	Chrysene	1.30E+00	3.93	3.31E+01	110	460	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	0.0 - 1.0	Chrysene	7.00E-01	2.28	3.07E+01	110	460	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	0.0 - 1.0	Chrysene	6.70E-01	1.68	3.99E+01	110	460	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	0.0 - 2.0	Chrysene	5.30E-01	2.28	2.32E+01	110	460	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	1.0 - 2.0	Chrysene	4.40E-01	1.7	2.59E+01	110	460	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	2.0 - 4.5	Chrysene	3.40E-01 J	1.65	2.06E+01	110	460	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	2.2 - 4.0	Chrysene	2.70E-01	1.28	2.11E+01	110	460	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	2.0 - 4.0	Chrysene	2.30E-01	1.56	1.47E+01	110	460	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	0.0 - 2.0	Chrysene	2.10E-01	1.92	1.09E+01	110	460	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	2.0 - 4.0	Chrysene	1.10E-01	1.58	6.96E+00	110	460	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	2.0 - 4.5	Cobalt	1.13E+01	1.65	6.85E+02					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	1.0 - 2.0	Cobalt	1.01E+01	1.7	5.94E+02					
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	0.0 - 2.0	Cobalt	1.00E+01	2.28	4.39E+02					
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	2.0 - 4.0	Cobalt	9.00E+00	1.58	5.70E+02					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	2.0 - 4.0	Cobalt	8.70E+00	1.56	5.58E+02					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	0.0 - 1.0	Cobalt	8.60E+00	2.28	3.77E+02					
LDW Subsurface Sediment 2006	LDW-SC11	02/13/06	0.0 - 0.8	Cobalt	8.50E+00	4.23	2.01E+02					
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	0.0 - 2.0	Cobalt	7.50E+00	1.92	3.91E+02					
LDW Subsurface Sediment 2006	LDW-SC11	02/13/06	3.4 - 4.1	Cobalt	7.20E+00	0.178	4.04E+03					
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	0.0 - 1.0	Cobalt	6.90E+00	1.68	4.11E+02					
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	1.0 - 2.2	Cobalt	6.40E+00	3.93	1.63E+02					
LDW Subsurface Sediment 2006	LDW-SC11	02/13/06	0.8 - 2.0	Cobalt	5.50E+00	0.647	8.50E+02					
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	6.0 - 8.0	Cobalt	5.50E+00	0.62	8.87E+02					
LDW Subsurface Sediment 2006	LDW-SC11	02/13/06	2.0 - 3.4	Cobalt	5.30E+00	0.397	1.34E+03					
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	2.2 - 4.0	Cobalt	4.00E+00	1.28	3.13E+02					
LDW Subsurface Sediment 2006	LDW-SC11	02/13/06	0.0 - 0.8	Copper	2.70E+02	4.23	6.38E+03	390	390	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	2.0 - 4.5	Copper	1.23E+02	1.65	7.45E+03	390	390	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	0.0 - 1.0	Copper	1.01E+02	2.28	4.43E+03	390	390	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	0.0 - 2.0	Copper	9.92E+01	2.28	4.35E+03	390	390	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	1.0 - 2.0	Copper	8.92E+01	1.7	5.25E+03	390	390	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	2.0 - 4.0	Copper	8.79E+01	1.56	5.63E+03	390	390	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	0.0 - 1.0	Copper	7.85E+01	1.68	4.67E+03	390	390	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	1.0 - 2.2	Copper	7.71E+01	3.93	1.96E+03	390	390	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	2.0 - 4.0	Copper	7.67E+01	1.58	4.85E+03	390	390	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	0.0 - 2.0	Copper	7.30E+01	1.92	3.80E+03	390	390	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	2.2 - 4.0	Copper	2.93E+01	1.28	2.29E+03	390	390	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	6.0 - 8.0	Copper	2.32E+01	0.62	3.74E+03	390	390	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC11	02/13/06	0.8 - 2.0	Copper	1.72E+01	0.647	2.66E+03	390	390	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC11	02/13/06	3.4 - 4.1	Copper	1.60E+01	0.178	8.99E+03	390	390	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC11	02/13/06	2.0 - 3.4	Copper	1.44E+01	0.397	3.63E+03	390	390	mg/kg DW	<1	<1

Table A-2a
Chemicals Detected in Subsurface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Sample Depth (feet)	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
											SQS	CSL
LDW Subsurface Sediment 2006	LDW-SC11[a]	02/13/06	0.0 - 0.8	Dibenzo(a,h)anthracene	1.50E-01	4.23	3.55E+00	0.23	0.54	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	1.0 - 2.2	Dibenzo(a,h)anthracene	8.40E-02	3.93	2.14E+00	12	33	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	1.0 - 2.0	Dibenzo(a,h)anthracene	4.00E-02 J	1.7	2.35E+00	12	33	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	0.0 - 1.0	Dibenzo(a,h)anthracene	4.00E-02	1.68	2.38E+00	12	33	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	0.0 - 1.0	Dibenzo(a,h)anthracene	3.80E-02 J	2.28	1.67E+00	12	33	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	0.0 - 2.0	Dibenzo(a,h)anthracene	2.70E-02 J	2.28	1.18E+00	12	33	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	2.2 - 4.0	Dibenzo(a,h)anthracene	2.40E-02	1.28	1.88E+00	12	33	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	2.0 - 4.5	Dibenzo(a,h)anthracene	1.80E-02 J	1.65	1.09E+00	12	33	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	6.0 - 8.0	Dibenzo(a,h)anthracene	6.50E-03	0.62	1.05E+00	12	33	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	1.0 - 2.2	Dibenzofuran	7.00E-02	3.93	1.78E+00	15	58	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	0.0 - 1.0	Dibenzofuran	2.90E-02	1.68	1.73E+00	15	58	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	0.0 - 2.0	Dibutyltin as ion	1.50E-02	1.92	7.81E-01					
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	0.0 - 2.0	Dimethyl phthalate	9.90E-03 J	2.28	4.34E-01	53	53	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	2.0 - 4.0	Di-n-butyl phthalate	3.00E-02 J	1.56	1.92E+00	220	1,700	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	2.0 - 4.0	Di-n-butyl phthalate	2.10E-02 J	1.58	1.33E+00	220	1,700	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	0.0 - 1.0	Dioxin/furan TEQ - Mammal WHO 1998 - Half DL	2.24E-05 J							
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	2.0 - 4.0	Dioxin/furan TEQ - Mammal WHO 1998 - Half DL	1.99E-05 J							
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	1.0 - 2.0	Dioxin/furan TEQ - Mammal WHO 1998 - Half DL	1.92E-05 J							
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	0.0 - 1.0	Dioxin/furan TEQ - Mammal WHO 2005 - Half DL	2.28E-05 J							
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	2.0 - 4.0	Dioxin/furan TEQ - Mammal WHO 2005 - Half DL	2.05E-05 J							
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	1.0 - 2.0	Dioxin/furan TEQ - Mammal WHO 2005 - Half DL	2.01E-05 J							
LDW Subsurface Sediment 2006	LDW-SC11[a]	02/13/06	0.0 - 0.8	Fluoranthene	8.10E+00	4.23	1.91E+02	1.7	2.5	mg/kg DW	4.8	3.2
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	1.0 - 2.2	Fluoranthene	3.10E+00	3.93	7.89E+01	160	1,200	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	0.0 - 1.0	Fluoranthene	9.90E-01	1.68	5.89E+01	160	1,200	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	0.0 - 1.0	Fluoranthene	6.60E-01	2.28	2.89E+01	160	1,200	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	0.0 - 2.0	Fluoranthene	5.30E-01	2.28	2.32E+01	160	1,200	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	0.0 - 2.0	Fluoranthene	3.50E-01	1.92	1.82E+01	160	1,200	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	2.0 - 4.5	Fluoranthene	3.20E-01	1.65	1.94E+01	160	1,200	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	1.0 - 2.0	Fluoranthene	2.70E-01	1.7	1.59E+01	160	1,200	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	2.0 - 4.0	Fluoranthene	2.60E-01	1.56	1.67E+01	160	1,200	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	2.0 - 4.0	Fluoranthene	2.10E-01	1.58	1.33E+01	160	1,200	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	2.2 - 4.0	Fluoranthene	1.40E-01	1.28	1.09E+01	160	1,200	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	1.0 - 2.2	Fluorene	1.60E-01	3.93	4.07E+00	23	79	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	0.0 - 1.0	Fluorene	8.90E-02	1.68	5.30E+00	23	79	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	1.0 - 2.0	Fluorene	4.90E-02 J	1.7	2.88E+00	23	79	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	0.0 - 1.0	Fluorene	4.60E-02 J	2.28	2.02E+00	23	79	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	2.0 - 4.5	Fluorene	2.60E-02	1.65	1.58E+00	23	79	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	0.0 - 2.0	Fluorene	2.50E-02	2.28	1.10E+00	23	79	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	2.2 - 4.0	Fluorene	2.20E-02	1.28	1.72E+00	23	79	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC11[a]	02/13/06	0.0 - 0.8	Indeno(1,2,3-cd)pyrene	6.70E-01	4.23	1.58E+01	0.6	0.69	mg/kg DW	1.1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	1.0 - 2.2	Indeno(1,2,3-cd)pyrene	3.90E-01	3.93	9.92E+00	34	88	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	0.0 - 1.0	Indeno(1,2,3-cd)pyrene	1.90E-01	1.68	1.13E+01	34	88	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	2.2 - 4.0	Indeno(1,2,3-cd)pyrene	1.00E-01	1.28	7.81E+00	34	88	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	0.0 - 2.0	Indeno(1,2,3-cd)pyrene	9.50E-02 J	2.28	4.17E+00	34	88	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	1.0 - 2.0	Indeno(1,2,3-cd)pyrene	9.20E-02	1.7	5.41E+00	34	88	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	0.0 - 1.0	Indeno(1,2,3-cd)pyrene	9.20E-02	2.28	4.04E+00	34	88	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	2.0 - 4.0	Indeno(1,2,3-cd)pyrene	6.90E-02	1.56	4.42E+00	34	88	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	2.0 - 4.5	Indeno(1,2,3-cd)pyrene	6.80E-02	1.65	4.12E+00	34	88	mg/kg OC	<1	<1

Table A-2a
Chemicals Detected in Subsurface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Sample Depth (feet)	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
											SQS	CSL
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	0.0 - 2.0	Indeno(1,2,3-cd)pyrene	5.70E-02 J	1.92	2.97E+00	34	88	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	2.0 - 4.0	Indeno(1,2,3-cd)pyrene	3.20E-02 J	1.58	2.03E+00	34	88	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC11	02/13/06	0.0 - 0.8	Lead	6.39E+02	4.23	1.51E+04	450	530	mg/kg DW	1.4	1.2
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	2.0 - 4.5	Lead	1.41E+02	1.65	8.55E+03	450	530	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	0.0 - 1.0	Lead	8.60E+01	1.68	5.12E+03	450	530	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	2.0 - 4.0	Lead	7.40E+01	1.58	4.68E+03	450	530	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	1.0 - 2.2	Lead	7.40E+01	3.93	1.88E+03	450	530	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	2.0 - 4.0	Lead	7.00E+01	1.56	4.49E+03	450	530	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	0.0 - 2.0	Lead	6.70E+01	2.28	2.94E+03	450	530	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	0.0 - 2.0	Lead	6.60E+01	1.92	3.44E+03	450	530	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	0.0 - 1.0	Lead	6.00E+01	2.28	2.63E+03	450	530	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	1.0 - 2.0	Lead	5.00E+01	1.7	2.94E+03	450	530	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	6.0 - 8.0	Lead	4.20E+01	0.62	6.77E+03	450	530	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	2.2 - 4.0	Lead	1.30E+01	1.28	1.02E+03	450	530	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC11	02/13/06	0.8 - 2.0	Lead	3.00E+00	0.647	4.64E+02	450	530	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC11	02/13/06	3.4 - 4.1	Lead	3.00E+00	0.178	1.69E+03	450	530	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC11	02/13/06	2.0 - 3.4	Lead	3.00E+00	0.397	7.56E+02	450	530	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	4.0 - 6.6	Mercury	7.40E-01	1.92	3.85E+01	0.41	0.59	mg/kg DW	1.8	1.3
LDW Subsurface Sediment 2006	LDW-SC11	02/13/06	0.0 - 0.8	Mercury	6.40E-01	4.23	1.51E+01	0.41	0.59	mg/kg DW	1.6	1.1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	1.0 - 2.2	Mercury	5.10E-01	3.93	1.30E+01	0.41	0.59	mg/kg DW	1.2	<1
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	2.0 - 4.0	Mercury	4.50E-01	1.58	2.85E+01	0.41	0.59	mg/kg DW	1.1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	2.0 - 4.5	Mercury	4.40E-01	1.65	2.67E+01	0.41	0.59	mg/kg DW	1.1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	0.0 - 1.0	Mercury	3.40E-01	2.28	1.49E+01	0.41	0.59	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	0.0 - 2.0	Mercury	2.90E-01	2.28	1.27E+01	0.41	0.59	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	0.0 - 1.0	Mercury	2.70E-01	1.68	1.61E+01	0.41	0.59	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	1.0 - 2.0	Mercury	2.50E-01	1.7	1.47E+01	0.41	0.59	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	0.0 - 2.0	Mercury	2.30E-01	1.92	1.20E+01	0.41	0.59	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	2.0 - 4.0	Mercury	2.10E-01	1.56	1.35E+01	0.41	0.59	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	2.2 - 4.0	Mercury	1.00E-01	1.28	7.81E+00	0.41	0.59	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC11	02/13/06	0.0 - 0.8	Molybdenum	3.40E+00	4.23	8.04E+01					
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	0.0 - 1.0	Molybdenum	3.20E+00	1.68	1.90E+02					
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	2.0 - 4.5	Molybdenum	2.80E+00	1.65	1.70E+02					
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	1.0 - 2.2	Molybdenum	2.50E+00	3.93	6.36E+01					
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	2.0 - 4.0	Molybdenum	2.00E+00	1.58	1.27E+02					
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	0.0 - 2.0	Molybdenum	2.00E+00	1.92	1.04E+02					
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	0.0 - 2.0	Molybdenum	1.40E+00	2.28	6.14E+01					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	2.0 - 4.0	Molybdenum	1.30E+00	1.56	8.33E+01					
LDW Subsurface Sediment 2006	LDW-SC11	02/13/06	0.8 - 2.0	Molybdenum	1.10E+00	0.647	1.70E+02					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	1.0 - 2.0	Molybdenum	1.00E+00	1.7	5.88E+01					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	0.0 - 1.0	Molybdenum	1.00E+00	2.28	4.39E+01					
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	6.0 - 8.0	Molybdenum	1.00E+00	0.62	1.61E+02					
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	2.2 - 4.0	Molybdenum	7.00E-01	1.28	5.47E+01					
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	1.0 - 2.2	Naphthalene	1.40E-01	3.93	3.56E+00	99	170	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	0.0 - 1.0	Naphthalene	2.50E-02	1.68	1.49E+00	99	170	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	2.2 - 4.0	Naphthalene	1.60E-02 J	1.28	1.25E+00	99	170	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	2.0 - 4.5	Naphthalene	1.40E-02 J	1.65	8.48E-01	99	170	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	0.0 - 2.0	Naphthalene	1.30E-02 J	2.28	5.70E-01	99	170	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	2.0 - 4.5	Nickel	4.50E+01	1.65	2.73E+03					

Table A-2a
Chemicals Detected in Subsurface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Sample Depth (feet)	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
											SQS	CSL
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	0.0 - 2.0	Nickel	2.80E+01	2.28	1.23E+03					
LDW Subsurface Sediment 2006	LDW-SC11	02/13/06	0.0 - 0.8	Nickel	2.60E+01	4.23	6.15E+02					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	1.0 - 2.0	Nickel	2.60E+01	1.7	1.53E+03					
LDW Subsurface Sediment 2006	LDW-SC11	02/13/06	3.4 - 4.1	Nickel	2.50E+01	0.178	1.40E+04					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	0.0 - 1.0	Nickel	2.40E+01	2.28	1.05E+03					
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	2.0 - 4.0	Nickel	2.30E+01	1.58	1.46E+03					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	2.0 - 4.0	Nickel	2.20E+01	1.56	1.41E+03					
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	0.0 - 1.0	Nickel	1.80E+01	1.68	1.07E+03					
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	0.0 - 2.0	Nickel	1.70E+01	1.92	8.85E+02					
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	1.0 - 2.2	Nickel	1.60E+01	3.93	4.07E+02					
LDW Subsurface Sediment 2006	LDW-SC11	02/13/06	2.0 - 3.4	Nickel	1.10E+01	0.397	2.77E+03					
LDW Subsurface Sediment 2006	LDW-SC11	02/13/06	0.8 - 2.0	Nickel	1.00E+01	0.647	1.55E+03					
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	6.0 - 8.0	Nickel	1.00E+01	0.62	1.61E+03					
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	2.2 - 4.0	Nickel	9.00E+00	1.28	7.03E+02					
LDW Subsurface Sediment 2006	LDW-SC11[a]	02/13/06	0.0 - 0.8	N-Nitroso-di-n-propylamine	3.60E-02	4.23	8.51E-01	0.028	0.04	mg/kg DW	1.3	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	1.0 - 2.0	OCDD	6.84E-03	1.7	4.02E-01					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	0.0 - 1.0	OCDD	6.42E-03	2.28	2.82E-01					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	2.0 - 4.0	OCDD	6.04E-03	1.56	3.87E-01					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	1.0 - 2.0	OCDF	4.44E-04	1.7	2.61E-02					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	2.0 - 4.0	OCDF	4.21E-04	1.56	2.70E-02					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	0.0 - 1.0	OCDF	3.88E-04	2.28	1.70E-02					
LDW Subsurface Sediment 2006	LDW-SC11[a]	02/13/06	0.0 - 0.8	PCBs (total calc'd)	3.00E+00	4.23	7.09E+01	0.13	1.0	mg/kg DW	23	3.0
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	4.0 - 4.5	PCBs (total calc'd)	2.60E+00	2.23	1.17E+02	12	65	mg/kg OC	9.7	1.8
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	2.0 - 4.0	PCBs (total calc'd)	2.50E+00	1.58	1.58E+02	12	65	mg/kg OC	13	2.4
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	6.0 - 7.0	PCBs (total calc'd)	2.40E+00	1.54	1.56E+02	12	65	mg/kg OC	13	2.4
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	2.0 - 2.5	PCBs (total calc'd)	2.00E+00 J	2.24	8.93E+01	12	65	mg/kg OC	7.4	1.4
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	2.0 - 4.5	PCBs (total calc'd)	1.64E+00	1.65	9.94E+01	12	65	mg/kg OC	8.3	1.5
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	3.5 - 4.0	PCBs (total calc'd)	1.59E+00	0.814	1.95E+02	12	65	mg/kg OC	16	3.0
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	3.5 - 4.0	PCBs (total calc'd)	7.90E-01	1.61	4.91E+01	12	65	mg/kg OC	4.1	<1
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	2.5 - 3.0	PCBs (total calc'd)	6.30E-01	1.67	3.77E+01	12	65	mg/kg OC	3.1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	0.0 - 1.0	PCBs (total calc'd)	5.10E-01	1.68	3.04E+01	12	65	mg/kg OC	2.5	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	3.0 - 3.5	PCBs (total calc'd)	4.90E-01	1.58	3.10E+01	12	65	mg/kg OC	2.6	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	4.0 - 6.0	PCBs (total calc'd)	4.40E-01	1.26	3.49E+01	12	65	mg/kg OC	2.9	<1
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	4.0 - 6.6	PCBs (total calc'd)	4.20E-01	1.92	2.19E+01	12	65	mg/kg OC	1.8	<1
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	0.0 - 2.0	PCBs (total calc'd)	3.50E-01	1.92	1.82E+01	12	65	mg/kg OC	1.5	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	2.5 - 3.0	PCBs (total calc'd)	3.50E-01	1.37	2.55E+01	12	65	mg/kg OC	2.1	<1
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	1.5 - 2.0	PCBs (total calc'd)	3.20E-01	1.98	1.62E+01	12	65	mg/kg OC	1.3	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	0.0 - 1.0	PCBs (total calc'd)	2.80E-01	2.28	1.23E+01	12	65	mg/kg OC	1.0	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	2.0 - 4.0	PCBs (total calc'd)	2.50E-01	1.56	1.60E+01	12	65	mg/kg OC	1.3	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	1.0 - 2.0	PCBs (total calc'd)	2.33E-01	1.7	1.37E+01	12	65	mg/kg OC	1.1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	2.0 - 2.5	PCBs (total calc'd)	1.76E-01	2.25	7.82E+00	12	65	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	0.0 - 2.0	PCBs (total calc'd)	1.72E-01	2.28	7.54E+00	12	65	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	0.0 - 0.5	PCBs (total calc'd)	1.67E-01	2.4	6.96E+00	12	65	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	3.0 - 3.5	PCBs (total calc'd)	1.38E-01	1.57	8.79E+00	12	65	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	1.0 - 1.5	PCBs (total calc'd)	1.34E-01	1.85	7.24E+00	12	65	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	0.5 - 1.0	PCBs (total calc'd)	1.06E-01	1.98	5.35E+00	12	65	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	1.0 - 1.5	PCBs (total calc'd)	1.01E-01	0.894	1.13E+01	12	65	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	0.5 - 1.0	PCBs (total calc'd)	9.70E-02	1.91	5.08E+00	12	65	mg/kg OC	<1	<1

Table A-2a
Chemicals Detected in Subsurface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Sample Depth (feet)	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
											SQS	CSL
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	1.5 - 2.0	PCBs (total calc'd)	9.40E-02	1.87	5.03E+00	12	65	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	1.0 - 2.2	PCBs (total calc'd)	6.60E-02	3.93	1.68E+00	12	65	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	0.0 - 0.5	PCBs (total calc'd)	6.40E-02	1.34	4.78E+00	12	65	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	6.0 - 8.0	PCBs (total calc'd)	4.50E-03 J	0.62	7.26E-01	12	65	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	2.0 - 4.0	Pentachlorophenol	2.00E-02 J	1.56	1.28E+00	0.36	0.69	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	0.0 - 1.0	Pentachlorophenol	1.70E-02 J	2.28	7.46E-01	0.36	0.69	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	1.0 - 2.2	Phenanthrene	1.30E+00	3.93	3.31E+01	100	480	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC11[a]	02/13/06	0.0 - 0.8	Phenanthrene	6.60E-01	4.23	1.56E+01	1.5	5.4	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	0.0 - 1.0	Phenanthrene	5.00E-01	1.68	2.98E+01	100	480	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	0.0 - 1.0	Phenanthrene	2.50E-01	2.28	1.10E+01	100	480	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	1.0 - 2.0	Phenanthrene	2.00E-01	1.7	1.18E+01	100	480	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	0.0 - 2.0	Phenanthrene	2.00E-01	2.28	8.77E+00	100	480	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	2.0 - 4.5	Phenanthrene	1.70E-01 J	1.65	1.03E+01	100	480	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	2.0 - 4.0	Phenanthrene	1.60E-01	1.56	1.03E+01	100	480	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	2.0 - 4.0	Phenanthrene	1.20E-01	1.58	7.59E+00	100	480	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	0.0 - 2.0	Phenanthrene	1.00E-01	1.92	5.21E+00	100	480	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	2.2 - 4.0	Phenanthrene	1.00E-01	1.28	7.81E+00	100	480	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	0.0 - 1.0	Phenol	1.70E-01	2.28	7.46E+00	0.42	1.2	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	0.0 - 1.0	Phenol	1.70E-01	1.68	1.01E+01	0.42	1.2	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	1.0 - 2.0	Phenol	8.20E-02	1.7	4.82E+00	0.42	1.2	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	0.0 - 2.0	Phenol	4.00E-02	2.28	1.75E+00	0.42	1.2	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	2.0 - 4.0	Phenol	3.60E-02 J	1.58	2.28E+00	0.42	1.2	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	1.0 - 2.2	Phenol	3.30E-02	3.93	8.40E-01	0.42	1.2	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	2.0 - 4.5	Phenol	3.30E-02	1.65	2.00E+00	0.42	1.2	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC11[a]	02/13/06	0.0 - 0.8	Pyrene	6.70E+00	4.23	1.58E+02	2.6	3.3	mg/kg DW	2.6	2.0
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	1.0 - 2.2	Pyrene	2.50E+00	3.93	6.36E+01	1,000	1,400	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	1.0 - 2.0	Pyrene	2.10E+00 J	1.7	1.24E+02	1,000	1,400	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	0.0 - 1.0	Pyrene	1.20E+00 J	2.28	5.26E+01	1,000	1,400	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	0.0 - 1.0	Pyrene	1.00E+00	1.68	5.95E+01	1,000	1,400	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	2.0 - 4.5	Pyrene	8.30E-01	1.65	5.03E+01	1,000	1,400	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	2.2 - 4.0	Pyrene	8.20E-01	1.28	6.41E+01	1,000	1,400	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	2.0 - 4.0	Pyrene	8.00E-01 J	1.56	5.13E+01	1,000	1,400	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	0.0 - 2.0	Pyrene	7.60E-01	2.28	3.33E+01	1,000	1,400	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	0.0 - 2.0	Pyrene	4.70E-01	1.92	2.45E+01	1,000	1,400	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	2.0 - 4.0	Pyrene	3.60E-01	1.58	2.28E+01	1,000	1,400	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	6.0 - 8.0	Pyrene	5.30E-02 J	0.62	8.55E+00	1,000	1,400	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC11	02/13/06	0.8 - 2.0	Pyrene	1.30E-02 J	0.647	2.01E+00	1,000	1,400	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC11	02/13/06	0.0 - 0.8	Silver	1.60E+00	4.23	3.78E+01	6.1	6.1	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	2.0 - 4.0	Silver	1.60E+00	1.58	1.01E+02	6.1	6.1	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	2.0 - 4.5	Silver	1.60E+00	1.65	9.70E+01	6.1	6.1	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC11[a]	02/13/06	0.0 - 0.8	Total HPAH (calc'd)	3.47E+01	4.23	8.20E+02	12	17	mg/kg DW	2.9	2.0
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	1.0 - 2.2	Total HPAH (calc'd)	1.31E+01	3.93	3.33E+02	960	5,300	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	0.0 - 1.0	Total HPAH (calc'd)	5.70E+00	1.68	3.39E+02	960	5,300	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	1.0 - 2.0	Total HPAH (calc'd)	5.00E+00 J	1.7	2.94E+02	960	5,300	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	0.0 - 1.0	Total HPAH (calc'd)	4.60E+00 J	2.28	2.02E+02	960	5,300	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	0.0 - 2.0	Total HPAH (calc'd)	3.96E+00 J	2.28	1.74E+02	960	5,300	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	2.0 - 4.5	Total HPAH (calc'd)	3.20E+00 J	1.65	1.94E+02	960	5,300	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	2.0 - 4.0	Total HPAH (calc'd)	2.55E+00 J	1.56	1.63E+02	960	5,300	mg/kg OC	<1	<1

Table A-2a
Chemicals Detected in Subsurface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Sample Depth (feet)	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
											SQS	CSL
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	2.2 - 4.0	Total HPAH (calc'd)	2.35E+00	1.28	1.84E+02	960	5,300	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	0.0 - 2.0	Total HPAH (calc'd)	2.09E+00 J	1.92	1.09E+02	960	5,300	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	2.0 - 4.0	Total HPAH (calc'd)	1.33E+00 J	1.58	8.42E+01	960	5,300	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	6.0 - 8.0	Total HPAH (calc'd)	6.00E-02 J	0.62	9.68E+00	960	5,300	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC11	02/13/06	0.8 - 2.0	Total HPAH (calc'd)	1.30E-02 J	0.647	2.01E+00	960	5,300	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	1.0 - 2.2	Total LPAH (calc'd)	2.50E+00	3.93	6.36E+01	370	780	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC11[a]	02/13/06	0.0 - 0.8	Total LPAH (calc'd)	1.44E+00	4.23	3.40E+01	5.2	13	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	0.0 - 1.0	Total LPAH (calc'd)	1.03E+00	1.68	6.13E+01	370	780	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	0.0 - 1.0	Total LPAH (calc'd)	4.90E-01 J	2.28	2.15E+01	370	780	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	1.0 - 2.0	Total LPAH (calc'd)	4.30E-01 J	1.7	2.53E+01	370	780	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	0.0 - 2.0	Total LPAH (calc'd)	3.90E-01 J	2.28	1.71E+01	370	780	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	2.0 - 4.5	Total LPAH (calc'd)	3.40E-01 J	1.65	2.06E+01	370	780	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	2.0 - 4.0	Total LPAH (calc'd)	2.20E-01	1.56	1.41E+01	370	780	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	2.2 - 4.0	Total LPAH (calc'd)	2.20E-01 J	1.28	1.72E+01	370	780	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	2.0 - 4.0	Total LPAH (calc'd)	1.70E-01	1.58	1.08E+01	370	780	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	0.0 - 2.0	Total LPAH (calc'd)	1.40E-01 J	1.92	7.29E+00	370	780	mg/kg OC	<1	<1
LDW Subsurface Sediment 2006	LDW-SC11	02/13/06	0.0 - 0.8	Total PAH (calc'd)	3.62E+01	4.23	8.56E+02					
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	1.0 - 2.2	Total PAH (calc'd)	1.55E+01	3.93	3.94E+02					
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	0.0 - 1.0	Total PAH (calc'd)	6.70E+00	1.68	3.99E+02					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	1.0 - 2.0	Total PAH (calc'd)	5.40E+00 J	1.7	3.18E+02					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	0.0 - 1.0	Total PAH (calc'd)	5.10E+00 J	2.28	2.24E+02					
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	0.0 - 2.0	Total PAH (calc'd)	4.36E+00 J	2.28	1.91E+02					
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	2.0 - 4.5	Total PAH (calc'd)	3.54E+00 J	1.65	2.15E+02					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	2.0 - 4.0	Total PAH (calc'd)	2.77E+00 J	1.56	1.78E+02					
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	2.2 - 4.0	Total PAH (calc'd)	2.57E+00 J	1.28	2.01E+02					
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	0.0 - 2.0	Total PAH (calc'd)	2.24E+00 J	1.92	1.17E+02					
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	2.0 - 4.0	Total PAH (calc'd)	1.50E+00 J	1.58	9.49E+01					
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	6.0 - 8.0	Total PAH (calc'd)	6.00E-02 J	0.62	9.68E+00					
LDW Subsurface Sediment 2006	LDW-SC11	02/13/06	0.8 - 2.0	Total PAH (calc'd)	1.30E-02 J	0.647	2.01E+00					
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	0.0 - 2.0	Tributyltin as ion	1.40E-01	1.92	7.29E+00					
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	2.0 - 4.0	Tributyltin as ion	1.50E-02	1.58	9.49E-01					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	1.0 - 2.0	Vanadium	7.54E+01	1.7	4.44E+03					
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	0.0 - 2.0	Vanadium	7.37E+01	2.28	3.23E+03					
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	2.0 - 4.0	Vanadium	7.24E+01	1.58	4.58E+03					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	0.0 - 1.0	Vanadium	6.92E+01	2.28	3.04E+03					
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	2.0 - 4.5	Vanadium	6.77E+01	1.65	4.10E+03					
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	2.0 - 4.0	Vanadium	6.44E+01	1.56	4.13E+03					
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	0.0 - 2.0	Vanadium	6.00E+01	1.92	3.13E+03					
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	1.0 - 2.2	Vanadium	5.81E+01	3.93	1.48E+03					
LDW Subsurface Sediment 2006	LDW-SC11	02/13/06	0.0 - 0.8	Vanadium	5.72E+01	4.23	1.35E+03					
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	0.0 - 1.0	Vanadium	5.36E+01	1.68	3.19E+03					
LDW Subsurface Sediment 2006	LDW-SC11	02/13/06	2.0 - 3.4	Vanadium	4.81E+01	0.397	1.21E+04					
LDW Subsurface Sediment 2006	LDW-SC11	02/13/06	3.4 - 4.1	Vanadium	4.71E+01	0.178	2.65E+04					
LDW Subsurface Sediment 2006	LDW-SC11	02/13/06	0.8 - 2.0	Vanadium	4.39E+01	0.647	6.79E+03					
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	6.0 - 8.0	Vanadium	4.10E+01	0.62	6.61E+03					
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	2.2 - 4.0	Vanadium	3.80E+01	1.28	2.97E+03					
LDW Subsurface Sediment 2006	LDW-SC11	02/13/06	0.0 - 0.8	Zinc	4.82E+02	4.23	1.14E+04	410	960	mg/kg DW	1.2	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	2.0 - 4.5	Zinc	3.59E+02	1.65	2.18E+04	410	960	mg/kg DW	<1	<1

Table A-2a
Chemicals Detected in Subsurface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area

Event Name	Location Name	Date Collected	Sample Depth (feet)	Chemical	Conc'n (mg/kg DW)	TOC %	Conc'n (mg/kg OC)	SQS	CSL	Units	Exceedance Factors	
											SQS	CSL
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	0.0 - 2.0	Zinc	2.09E+02	2.28	9.17E+03	410	960	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	0.0 - 1.0	Zinc	1.62E+02	2.28	7.11E+03	410	960	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	2.0 - 4.0	Zinc	1.50E+02	1.56	9.62E+03	410	960	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	1.0 - 2.0	Zinc	1.48E+02	1.7	8.71E+03	410	960	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	0.0 - 1.0	Zinc	1.45E+02	1.68	8.63E+03	410	960	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	2.0 - 4.0	Zinc	1.39E+02	1.58	8.80E+03	410	960	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	0.0 - 2.0	Zinc	1.29E+02	1.92	6.72E+03	410	960	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	1.0 - 2.2	Zinc	1.00E+02	3.93	2.54E+03	410	960	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	6.0 - 8.0	Zinc	8.84E+01	0.62	1.43E+04	410	960	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	2.2 - 4.0	Zinc	3.71E+01	1.28	2.90E+03	410	960	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC11	02/13/06	3.4 - 4.1	Zinc	3.19E+01	0.178	1.79E+04	410	960	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC11	02/13/06	0.8 - 2.0	Zinc	2.62E+01	0.647	4.05E+03	410	960	mg/kg DW	<1	<1
LDW Subsurface Sediment 2006	LDW-SC11	02/13/06	2.0 - 3.4	Zinc	2.52E+01	0.397	6.35E+03	410	960	mg/kg DW	<1	<1

mg/kg - Milligram per kilogram
ug/kg - Microgram per kilogram
ng/kg - nanogram per kilogram
DW - Dry weight
TOC - Total Organic Carbon
OC - Organic carbon normalized
SQS - SMS Sediment Quality Standard
CSL - SMS Cleanup Screening Level

SMS - Sediment
PAHs - Polycyclic
SVOCs - Semi-volatile
PCB - Polychlorinated
J - Estimated value
LDW - Lower
TEQ - Toxic

Table presents detected chemicals only.
Exceedance factors are the ratio of the detected concentrations to
Sampling events are listed in Table 2.

* Due to the TOC in this sample, results were compared to the Lowest Apparent Effects Threshold (LAET) or the second LAET (2LAET) value rather than the SQS and/or CSL. The LAET is functionally equivalent to the SQS and the 2LAET is functionally equivalent to the CSL. OC-normalization is not considered to be appropriate for when TOC concentrations are less than or equal to 0.5 percent or greater than or equal to 4.0 percent.

Table A-2b
Chemicals Detected in Subsurface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area
to Lower Duwamish Waterway Background Levels

Event Name	Location Name	Date Collected	Sample Depth (feet)	Chemical	Conc'n	Units	LDW Back-ground	Units	Exceedance Factors
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	2.0 - 4.5	Arsenic	41	mg/kg DW	7.3	mg/kg DW	5.6
LDW Subsurface Sediment 2006	LDW-SC11	02/13/06	0.0 - 0.8	Arsenic	28	mg/kg DW	7.3	mg/kg DW	3.8
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	2.0 - 4.0	Arsenic	24	mg/kg DW	7.3	mg/kg DW	3.3
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	0.0 - 2.0	Arsenic	21	mg/kg DW	7.3	mg/kg DW	2.9
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	0.0 - 2.0	Arsenic	20	mg/kg DW	7.3	mg/kg DW	2.7
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	1.0 - 2.0	Arsenic	20	mg/kg DW	7.3	mg/kg DW	2.7
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	0.0 - 1.0	Arsenic	20	mg/kg DW	7.3	mg/kg DW	2.7
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	6.0 - 8.0	Arsenic	20	mg/kg DW	7.3	mg/kg DW	2.7
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	2.0 - 4.0	Arsenic	19	mg/kg DW	7.3	mg/kg DW	2.6
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	0.0 - 1.0	Arsenic	17	mg/kg DW	7.3	mg/kg DW	2.3
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	1.0 - 2.2	Arsenic	14	mg/kg DW	7.3	mg/kg DW	1.9
LDW Subsurface Sediment 2006	LDW-SC11	02/13/06	0.8 - 2.0	Arsenic	9	mg/kg DW	7.3	mg/kg DW	1.2
LDW Subsurface Sediment 2006	LDW-SC11	02/13/06	3.4 - 4.1	Arsenic	9	mg/kg DW	7.3	mg/kg DW	1.2
LDW Subsurface Sediment 2006	LDW-SC11	02/13/06	2.0 - 3.4	Arsenic	7	mg/kg DW	7.3	mg/kg DW	<1
LDW Subsurface Sediment 2006	LDW-SC11	02/13/06	0.0 - 0.8	Carcinogenic PAHs - Mammal - Half DL	4400	ug/kg DW	8.9	ug/kg DW	494
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	1.0 - 2.2	Carcinogenic PAHs - Mammal - Half DL	1900	ug/kg DW	8.9	ug/kg DW	213
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	0.0 - 1.0	Carcinogenic PAHs - Mammal - Half DL	880	ug/kg DW	8.9	ug/kg DW	99
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	1.0 - 2.0	Carcinogenic PAHs - Mammal - Half DL	580 J	ug/kg DW	8.9	ug/kg DW	65
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	0.0 - 2.0	Carcinogenic PAHs - Mammal - Half DL	560 J	ug/kg DW	8.9	ug/kg DW	63
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	2.0 - 4.5	Carcinogenic PAHs - Mammal - Half DL	490 J	ug/kg DW	8.9	ug/kg DW	55
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	0.0 - 1.0	Carcinogenic PAHs - Mammal - Half DL	480 J	ug/kg DW	8.9	ug/kg DW	54
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	2.2 - 4.0	Carcinogenic PAHs - Mammal - Half DL	330	ug/kg DW	8.9	ug/kg DW	37
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	2.0 - 4.0	Carcinogenic PAHs - Mammal - Half DL	310	ug/kg DW	8.9	ug/kg DW	35
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	0.0 - 2.0	Carcinogenic PAHs - Mammal - Half DL	290 J	ug/kg DW	8.9	ug/kg DW	33
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	2.0 - 4.0	Carcinogenic PAHs - Mammal - Half DL	190 J	ug/kg DW	8.9	ug/kg DW	21
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	6.0 - 8.0	Carcinogenic PAHs - Mammal - Half DL	48	ug/kg DW	8.9	ug/kg DW	5.4
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	0.0 - 1.0	Dioxin/furan TEQ - Mammal - Half DL	22.8 J	ng/kg	1.6	ng/kg	14
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	0.0 - 1.0	Dioxin/furan TEQ - Mammal - Half DL	22.4 J	ng/kg	1.6	ng/kg	14
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	2.0 - 4.0	Dioxin/furan TEQ - Mammal - Half DL	20.5 J	ng/kg	1.6	ng/kg	13
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	1.0 - 2.0	Dioxin/furan TEQ - Mammal - Half DL	20.1 J	ng/kg	1.6	ng/kg	13
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	2.0 - 4.0	Dioxin/furan TEQ - Mammal - Half DL	19.9 J	ng/kg	1.6	ng/kg	12
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	1.0 - 2.0	Dioxin/furan TEQ - Mammal - Half DL	19.2 J	ng/kg	1.6	ng/kg	12
LDW Subsurface Sediment 2006	LDW-SC11	02/13/06	0.0 - 0.8	PCBs (total calc'd)	3000	ug/kg DW	6.5	ug/kg DW	462
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	4.0 - 4.5	PCBs (total calc'd)	2600	ug/kg DW	6.5	ug/kg DW	400
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	2.0 - 4.0	PCBs (total calc'd)	2500	ug/kg DW	6.5	ug/kg DW	385
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	6.0 - 7.0	PCBs (total calc'd)	2400	ug/kg DW	6.5	ug/kg DW	369
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	2.0 - 2.5	PCBs (total calc'd)	2000 J	ug/kg DW	6.5	ug/kg DW	308
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	2.0 - 4.5	PCBs (total calc'd)	1640	ug/kg DW	6.5	ug/kg DW	252

Table A-2b
Chemicals Detected in Subsurface Sediment Samples
Near the Spokane Street to Kellogg Island Source Control Area
to Lower Duwamish Waterway Background Levels

Event Name	Location Name	Date Collected	Sample Depth (feet)	Chemical	Conc'n	Units	LDW Back-ground	Units	Exceedance Factors
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	3.5 - 4.0	PCBs (total calc'd)	1590	ug/kg DW	6.5	ug/kg DW	245
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	3.5 - 4.0	PCBs (total calc'd)	790	ug/kg DW	6.5	ug/kg DW	122
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	2.5 - 3.0	PCBs (total calc'd)	630	ug/kg DW	6.5	ug/kg DW	97
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	0.0 - 1.0	PCBs (total calc'd)	510	ug/kg DW	6.5	ug/kg DW	78
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	3.0 - 3.5	PCBs (total calc'd)	490	ug/kg DW	6.5	ug/kg DW	75
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	4.0 - 6.0	PCBs (total calc'd)	440	ug/kg DW	6.5	ug/kg DW	68
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	4.0 - 6.6	PCBs (total calc'd)	420	ug/kg DW	6.5	ug/kg DW	65
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	0.0 - 2.0	PCBs (total calc'd)	350	ug/kg DW	6.5	ug/kg DW	54
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	2.5 - 3.0	PCBs (total calc'd)	350	ug/kg DW	6.5	ug/kg DW	54
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	1.5 - 2.0	PCBs (total calc'd)	320	ug/kg DW	6.5	ug/kg DW	49
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	0.0 - 1.0	PCBs (total calc'd)	280	ug/kg DW	6.5	ug/kg DW	43
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	2.0 - 4.0	PCBs (total calc'd)	250	ug/kg DW	6.5	ug/kg DW	38
LDW Subsurface Sediment 2006	LDW-SC19	02/24/06	1.0 - 2.0	PCBs (total calc'd)	233	ug/kg DW	6.5	ug/kg DW	36
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	2.0 - 2.5	PCBs (total calc'd)	176	ug/kg DW	6.5	ug/kg DW	27
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	0.0 - 2.0	PCBs (total calc'd)	172	ug/kg DW	6.5	ug/kg DW	26
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	0.0 - 0.5	PCBs (total calc'd)	167	ug/kg DW	6.5	ug/kg DW	26
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	3.0 - 3.5	PCBs (total calc'd)	138	ug/kg DW	6.5	ug/kg DW	21
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	1.0 - 1.5	PCBs (total calc'd)	134	ug/kg DW	6.5	ug/kg DW	21
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	0.5 - 1.0	PCBs (total calc'd)	106	ug/kg DW	6.5	ug/kg DW	16
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	1.0 - 1.5	PCBs (total calc'd)	101	ug/kg DW	6.5	ug/kg DW	16
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	0.5 - 1.0	PCBs (total calc'd)	97	ug/kg DW	6.5	ug/kg DW	15
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	1.5 - 2.0	PCBs (total calc'd)	94	ug/kg DW	6.5	ug/kg DW	14
LDW Subsurface Sediment 2006	LDW-SC5	02/09/06	1.0 - 2.2	PCBs (total calc'd)	66	ug/kg DW	6.5	ug/kg DW	10
LDW Subsurface Sediment 2006	LDW-SC12	02/16/06	0.0 - 0.5	PCBs (total calc'd)	64	ug/kg DW	6.5	ug/kg DW	9.8
LDW Subsurface Sediment 2006	LDW-SC6	02/09/06	6.0 - 8.0	PCBs (total calc'd)	4.5 J	ug/kg DW	6.5	ug/kg DW	<1

mg/kg - Milligram per kilogram
ug/kg - Microgram per kilogram
ng/kg - nanogram per kilogram
DW - Dry weight
PAHs - Polycyclic aromatic hydrocarbons
PCB - Polychlorinated biphenyl
J - Estimated value between the method detection limit and the laboratory reporting limit
LDW - Lower Duwamish Waterway
TEQ - Toxic Equivalency

Table presents detected chemicals only.
Exceedance factors are the ratio of the detected concentrations to the LDW Background Level (AECOM 2010 [0030]); exceedance factors are shown only if they are greater than 1.
Sampling events are listed in Table 2.

Table A-3
Chemicals Detected in Seep Samples
Spokane Street to Kellogg Island

Source	Sample Location	Date Sampled	Chemical	Conc'n	Units	Marine Chronic WQS	Marine Acute WQS	Chronic WQS Exceedance Factor	GW-to-Sediment Screening Level [a]	Exceedance Factor
Filtered Samples										
LDWRI-Seep	SP-69	06/29/04	Arsenic	1.47	ug/L	36	69	<1	370	<1
LDWRI-Seep	SP-64	07/02/04	Arsenic	1.28	ug/L	36	69	<1	370	<1
LDWRI-Seep	SP-71	06/29/04	Arsenic	1.02	ug/L	36	69	<1	370	<1
LDWRI-Seep	SP-64	07/02/04	Cadmium	0.045	ug/L	9.3	42	<1	3.4	<1
LDWRI-Seep	SP-71	06/29/04	Cadmium	0.023	ug/L	9.3	42	<1	3.4	<1
LDWRI-Seep	SP-69	06/29/04	Cadmium	0.016	ug/L	9.3	42	<1	3.4	<1
LDWRI-Seep	SP-69	06/29/04	Dissolved Organic Carbon	5.81 J	mg/L					
LDWRI-Seep	SP-64	07/02/04	Dissolved Organic Carbon	1.75 J	mg/L					
LDWRI-Seep	SP-64	07/02/04	Lead	0.193	ug/L	8.1	210	<1	13	<1
LDWRI-Seep	SP-71	06/29/04	Lead	0.175	ug/L	8.1	210	<1	13	<1
LDWRI-Seep	SP-69	06/29/04	Lead	0.066	ug/L	8.1	210	<1	13	<1
LDWRI-Seep	SP-69	06/29/04	Mercury	0.00349	ug/L	0.025	1.8	<1	0.0074	<1
LDWRI-Seep	SP-71	06/29/04	Mercury	0.00201	ug/L	0.025	1.8	<1	0.0074	<1
LDWRI-Seep	SP-64	07/02/04	Mercury	0.00126 J	ug/L	0.025	1.8	<1	0.0074	<1
LDWRI-Seep	SP-69	06/29/04	Nickel	3.22	ug/L	8.2	74	<1		
LDWRI-Seep	SP-71	06/29/04	Nickel	1.95	ug/L	8.2	74	<1		
LDWRI-Seep	SP-71	06/29/04	Silver	0.07	ug/L	NV	1.9	<1	1.5	<1
LDWRI-Seep	SP-69	06/29/04	Silver	0.053	ug/L	NV	1.9	<1	1.5	<1
LDWRI-Seep	SP-64	07/02/04	Silver	0.049	ug/L	NV	1.9	<1	1.5	<1
LDWRI-Seep	SP-71	06/29/04	Zinc	10.2	ug/L	81	90	<1	76	<1
LDWRI-Seep	SP-69	06/29/04	Zinc	3.95	ug/L	81	90	<1	76	<1
LDWRI-Seep	SP-64	07/02/04	Zinc	3.86	ug/L	81	90	<1	76	<1
Unfiltered Samples										
LDWRI-Seep	SP-64	07/02/04	Aroclor 1248	0.092	ug/L				1.5	<1
LDWRI-Seep	SP-64	07/02/04	Aroclor 1254	0.21 J	ug/L				0.86	<1
LDWRI-Seep	SP-71	06/29/04	Aroclor 1254	0.02 J	ug/L				0.86	<1
LDWRI-Seep	SP-64	07/02/04	Aroclor 1260	0.16	ug/L				0.31	<1
LDWRI-Seep	SP-71	06/29/04	Arsenic	1.91	ug/L	36	69	<1	370	<1
LDWRI-Seep	SP-69	06/29/04	Arsenic	1.64	ug/L	36	69	<1	370	<1
LDWRI-Seep	SP-69	06/29/04	Cadmium	0.112	ug/L	9.3	42	<1	3.4	<1
LDWRI-Seep	SP-71	06/29/04	Cadmium	0.078	ug/L	9.3	42	<1	3.4	<1

Table A-3
Chemicals Detected in Seep Samples
Spokane Street to Kellogg Island

Source	Sample Location	Date Sampled	Chemical	Conc'n	Units	Marine Chronic WQS	Marine Acute WQS	Chronic WQS Exceedance Factor	GW-to-Sediment Screening Level [a]	Exceedance Factor
LDWRI-Seep	SP-71	06/29/04	Copper	12.1 J	ug/L	3.1	4.8	3.9	120	<1
LDWRI-Seep	SP-69	06/29/04	Copper	8.06 J	ug/L	3.1	4.8	2.6	120	<1
LDWRI-Seep	SP-71	06/29/04	Lead	15.2	ug/L	8.1	210	1.9	13	1.2
LDWRI-Seep	SP-69	06/29/04	Lead	0.356	ug/L	8.1	210	<1	13	<1
LDWRI-Seep	SP-71	06/29/04	Mercury	0.0322	ug/L	0.025	1.8	1.3	0.0074	4.4
LDWRI-Seep	SP-69	06/29/04	Mercury	0.0127	ug/L	0.025	1.8	<1	0.0074	1.7
LDWRI-Seep	SP-69	06/29/04	Mercury	0.0127	ug/L	0.025	1.8	<1	0.0074	1.7
LDWRI-Seep	SP-69	06/29/04	Nickel	4.52	ug/L	8.2	74	<1		
LDWRI-Seep	SP-71	06/29/04	Nickel	3.44	ug/L	8.2	74	<1		
LDWRI-Seep	SP-64	07/02/04	PCBs (total calc'd)	0.46 J	ug/L	0.030	10	15	1.5	<1
LDWRI-Seep	SP-71	06/29/04	PCBs (total calc'd)	0.02 J	ug/L	0.030	10	<1	1.5	<1
LDWRI-Seep	SP-71	06/29/04	Silver	0.068	ug/L	NV	1.9	<1	1.5	<1
LDWRI-Seep	SP-69	06/29/04	Silver	0.053	ug/L	NV	1.9	<1	1.5	<1
LDWRI-Seep	SP-69	06/29/04	Zinc	45.6	ug/L	81	90	<1	76	<1
LDWRI-Seep	SP-71	06/29/04	Zinc	26.9	ug/L	81	90	<1	76	<1

ug/L - micrograms per liter
mg/L - milligrams per liter
WQS - Water Quality Standards
CSL - SMS Cleanup Screening Level
PCB - Polychlorinated biphenyl
J - Estimated value between the method detection limit and the laboratory reporting limit
NV - no value
SMS - Sediment Management Standard (Washington Administrative Code 173-204)

Table presents detected chemicals only.
Exceedance factors are the ratio of the detected concentration to the screening level; exceedance factors are shown only if they are greater than or equal to 1.
a - Groundwater to sediment screening level, based on sediment CSLs. From SAIC 2006

Table A-4
Chemicals Detected in Bank Soil Samples
Spokane Street to Kellogg Island

Sample Location	Date Sampled	Chemical	Conc'n (mg/kg)	SQS	CSL	SQS Exceedance Factor	CSL Exceedance Factor	LDW Background	LDW Background Exceedance Factor
T107-BS-5	5/10/2011	Arsenic	324	57	93	5.7	3.5	7.3	44
T107-BS-4	5/10/2011	Arsenic	313	57	93	5.5	3.4	7.3	43
T107-BS-2	5/10/2011	Arsenic	310	57	93	5.4	3.3	7.3	42
T107-BS-1	5/10/2011	Arsenic	197	57	93	3.5	2.1	7.3	27
T107-BS-3	5/10/2011	Arsenic	190	57	93	3.3	2.0	7.3	26
RM-BS-4	5/12/2011	Arsenic	43	57	93	<1	<1	7.3	5.9
RM-BS-5	5/12/2011	Arsenic	8.5	57	93	<1	<1	7.3	1.2
RM-BS-2	5/12/2011	Arsenic	6.3	57	93	<1	<1	7.3	<1
RM-BS-3	5/12/2011	Arsenic	5.8	57	93	<1	<1	7.3	<1
T107-BS-5	5/10/2011	Cadmium	4	5.1	6.7	<1	<1		
T107-BS-2	5/10/2011	Cadmium	3	5.1	6.7	<1	<1		
T107-BS-3	5/10/2011	Cadmium	2	5.1	6.7	<1	<1		
T107-BS-4	5/10/2011	Cadmium	2	5.1	6.7	<1	<1		
RM-BS-1	5/12/2011	Cadmium	1	5.1	6.7	<1	<1		
RM-BS-2	5/12/2011	Cadmium	0.3	5.1	6.7	<1	<1		
RM-BS-1	5/12/2011	Chromium	178	260	270	<1	<1		
RM-BS-4	5/12/2011	Chromium	24	260	270	<1	<1		
RM-BS-5	5/12/2011	Chromium	16.6	260	270	<1	<1		
RM-BS-2	5/12/2011	Chromium	15.3	260	270	<1	<1		
RM-BS-3	5/12/2011	Chromium	13.1	260	270	<1	<1		
T107-BS-5	5/10/2011	Chromium	9	260	270	<1	<1		
T107-BS-1	5/10/2011	Chromium	8	260	270	<1	<1		
T107-BS-3	5/10/2011	Chromium	8	260	270	<1	<1		
T107-BS-2	5/10/2011	Chromium	6	260	270	<1	<1		
T107-BS-4	5/10/2011	Chromium	5	260	270	<1	<1		
RM-BS-1	5/12/2011	Copper	118	390	390	<1	<1		
T107-BS-2	5/10/2011	Copper	108	390	390	<1	<1		
RM-BS-4	5/12/2011	Copper	93.3	390	390	<1	<1		
T107-BS-4	5/10/2011	Copper	90	390	390	<1	<1		
T107-BS-5	5/10/2011	Copper	87	390	390	<1	<1		
T107-BS-1	5/10/2011	Copper	72	390	390	<1	<1		
T107-BS-3	5/10/2011	Copper	70	390	390	<1	<1		
RM-BS-5	5/12/2011	Copper	49.9	390	390	<1	<1		
RM-BS-2	5/12/2011	Copper	29.6	390	390	<1	<1		

Table A-4
Chemicals Detected in Bank Soil Samples
Spokane Street to Kellogg Island

Sample Location	Date Sampled	Chemical	Conc'n (mg/kg)	SQS	CSL	SQS Exceedance Factor	CSL Exceedance Factor	LDW Background	LDW Background Exceedance Factor
RM-BS-3	5/12/2011	Copper	22	390	390	<1	<1		
T107-BS-5	5/10/2011	Lead	1610	450	530	3.6	3.0		
T107-BS-2	5/10/2011	Lead	1140	450	530	2.5	2.2		
T107-BS-4	5/10/2011	Lead	970	450	530	2.2	1.8		
T107-BS-1	5/10/2011	Lead	730	450	530	1.6	1.4		
T107-BS-3	5/10/2011	Lead	640	450	530	1.4	1.2		
RM-BS-1	5/12/2011	Lead	120	450	530	<1	<1		
RM-BS-5	5/12/2011	Lead	72	450	530	<1	<1		
RM-BS-2	5/12/2011	Lead	70	450	530	<1	<1		
RM-BS-4	5/12/2011	Lead	21	450	530	<1	<1		
RM-BS-3	5/12/2011	Lead	14	450	530	<1	<1		
RM-BS-1	5/12/2011	Mercury	1.05	0.41	0.59	2.6	1.8		
RM-BS-5	5/12/2011	Mercury	0.31	0.41	0.59	<1	<1		
RM-BS-3	5/12/2011	Mercury	0.07	0.41	0.59	<1	<1		
RM-BS-2	5/12/2011	Mercury	0.04	0.41	0.59	<1	<1		
T107-BS-5	5/10/2011	Silver	4	6.1	6.1	<1	<1		
T107-BS-1	5/10/2011	Silver	3	6.1	6.1	<1	<1		
T107-BS-2	5/10/2011	Silver	3	6.1	6.1	<1	<1		
T107-BS-4	5/10/2011	Silver	3	6.1	6.1	<1	<1		
T107-BS-3	5/10/2011	Silver	2	6.1	6.1	<1	<1		
T107-BS-5	5/10/2011	Zinc	2480	410	960	6.0	2.6		
T107-BS-4	5/10/2011	Zinc	1440	410	960	3.5	1.5		
T107-BS-2	5/10/2011	Zinc	1280	410	960	3.1	1.3		
T107-BS-3	5/10/2011	Zinc	603	410	960	1.5	<1		
T107-BS-1	5/10/2011	Zinc	440	410	960	1.1	<1		
RM-BS-1	5/12/2011	Zinc	334	410	960	<1	<1		
RM-BS-4	5/12/2011	Zinc	197	410	960	<1	<1		
RM-BS-5	5/12/2011	Zinc	73	410	960	<1	<1		
RM-BS-2	5/12/2011	Zinc	58	410	960	<1	<1		
RM-BS-3	5/12/2011	Zinc	34	410	960	<1	<1		

Table A-4
Chemicals Detected in Bank Soil Samples
Spokane Street to Kellogg Island

Sample Location	Date Sampled	Chemical	Conc'n (ug/kg)	LAET	2LAET	LAET Exceedance Factor	2LAET Exceedance Factor	LDW Background	LDW Background Exceedance Factor
RM-BS-1	5/12/2011	2-Methylnaphthalene	250	670	1400	<1	<1		
RM-BS-1	5/12/2011	2-Methylnaphthalene	230	670	1400	<1	<1		
RM-BS-2	5/12/2011	2-Methylnaphthalene	120	670	1400	<1	<1		
RM-BS-2	5/12/2011	2-Methylnaphthalene	21	670	1400	<1	<1		
RM-BS-5	5/12/2011	2-Methylnaphthalene	19	670	1400	<1	<1		
RM-BS-4	5/12/2011	2-Methylnaphthalene	6	670	1400	<1	<1		
RM-BS-1	5/12/2011	Acenaphthene	130	500	730	<1	<1		
RM-BS-1	5/12/2011	Acenaphthene	110	500	730	<1	<1		
RM-BS-2	5/12/2011	Acenaphthene	16	500	730	<1	<1		
RM-BS-5	5/12/2011	Acenaphthene	5.8	500	730	<1	<1		
RM-BS-4	5/12/2011	Acenaphthene	5.7	500	730	<1	<1		
T107-BS-1	5/10/2011	Acenaphthylene	1000	1300	1300	<1	<1		
RM-BS-2	5/12/2011	Acenaphthylene	24	1300	1300	<1	<1		
T107-BS-3	5/10/2011	Acenaphthylene	19	1300	1300	<1	<1		
RM-BS-1	5/12/2011	Acenaphthylene	16	1300	1300	<1	<1		
RM-BS-5	5/12/2011	Acenaphthylene	15	1300	1300	<1	<1		
RM-BS-3	5/12/2011	Acenaphthylene	5.5	1300	1300	<1	<1		
RM-BS-4	5/12/2011	Acenaphthylene	4.4 T	1300	1300	<1	<1		
RM-BS-1	5/12/2011	Anthracene	76	960	4400	<1	<1		
RM-BS-1	5/12/2011	Anthracene	45	960	4400	<1	<1		
RM-BS-2	5/12/2011	Anthracene	36	960	4400	<1	<1		
RM-BS-5	5/12/2011	Anthracene	27	960	4400	<1	<1		
RM-BS-4	5/12/2011	Anthracene	12	960	4400	<1	<1		
RM-BS-3	5/12/2011	Anthracene	4.7 T	960	4400	<1	<1		
RM-BS-1	5/12/2011	Benzo(a)anthracene	510	1300	1600	<1	<1		
RM-BS-1	5/12/2011	Benzo(a)anthracene	420	1300	1600	<1	<1		
RM-BS-2	5/12/2011	Benzo(a)anthracene	170	1300	1600	<1	<1		
RM-BS-5	5/12/2011	Benzo(a)anthracene	130	1300	1600	<1	<1		
RM-BS-5	5/12/2011	Benzo(a)anthracene	84	1300	1600	<1	<1		
RM-BS-3	5/12/2011	Benzo(a)anthracene	74	1300	1600	<1	<1		
RM-BS-2	5/12/2011	Benzo(a)anthracene	46	1300	1600	<1	<1		
RM-BS-3	5/12/2011	Benzo(a)anthracene	29	1300	1600	<1	<1		
RM-BS-4	5/12/2011	Benzo(a)anthracene	26	1300	1600	<1	<1		
RM-BS-4	5/12/2011	Benzo(a)anthracene	22	1300	1600	<1	<1		
T107-BS-2	5/10/2011	Benzo(a)anthracene	3.9 T	1300	1600	<1	<1		

Table A-4
Chemicals Detected in Bank Soil Samples
Spokane Street to Kellogg Island

Sample Location	Date Sampled	Chemical	Conc'n (ug/kg)	LAET	2LAET	LAET Exceedance Factor	2LAET Exceedance Factor	LDW Background	LDW Background Exceedance Factor
RM-BS-1	5/12/2011	Benzo(a)pyrene	770	1600	3000	<1	<1		
RM-BS-1	5/12/2011	Benzo(a)pyrene	560	1600	3000	<1	<1		
RM-BS-2	5/12/2011	Benzo(a)pyrene	180	1600	3000	<1	<1		
RM-BS-5	5/12/2011	Benzo(a)pyrene	160	1600	3000	<1	<1		
RM-BS-5	5/12/2011	Benzo(a)pyrene	98	1600	3000	<1	<1		
RM-BS-3	5/12/2011	Benzo(a)pyrene	75	1600	3000	<1	<1		
RM-BS-2	5/12/2011	Benzo(a)pyrene	56	1600	3000	<1	<1		
RM-BS-3	5/12/2011	Benzo(a)pyrene	52	1600	3000	<1	<1		
RM-BS-4	5/12/2011	Benzo(a)pyrene	26	1600	3000	<1	<1		
RM-BS-4	5/12/2011	Benzo(a)pyrene	23	1600	3000	<1	<1		
RM-BS-1	5/12/2011	Benzo(g,h,i)perylene	530	670	720	<1	<1		
RM-BS-1	5/12/2011	Benzo(g,h,i)perylene	400	670	720	<1	<1		
RM-BS-5	5/12/2011	Benzo(g,h,i)perylene	95	670	720	<1	<1		
RM-BS-5	5/12/2011	Benzo(g,h,i)perylene	77	670	720	<1	<1		
RM-BS-2	5/12/2011	Benzo(g,h,i)perylene	74	670	720	<1	<1		
RM-BS-3	5/12/2011	Benzo(g,h,i)perylene	72	670	720	<1	<1		
RM-BS-2	5/12/2011	Benzo(g,h,i)perylene	65	670	720	<1	<1		
RM-BS-3	5/12/2011	Benzo(g,h,i)perylene	34	670	720	<1	<1		
RM-BS-4	5/12/2011	Benzo(g,h,i)perylene	34	670	720	<1	<1		
RM-BS-4	5/12/2011	Benzo(g,h,i)perylene	16	670	720	<1	<1		
T107-BS-1	5/10/2011	Benzo(g,h,i)perylene	6.3	670	720	<1	<1		
RM-BS-1	5/12/2011	Chrysene	640	1400	2800	<1	<1		
RM-BS-1	5/12/2011	Chrysene	540	1400	2800	<1	<1		
RM-BS-2	5/12/2011	Chrysene	200	1400	2800	<1	<1		
RM-BS-5	5/12/2011	Chrysene	160	1400	2800	<1	<1		
RM-BS-5	5/12/2011	Chrysene	110	1400	2800	<1	<1		
RM-BS-3	5/12/2011	Chrysene	90	1400	2800	<1	<1		
RM-BS-2	5/12/2011	Chrysene	71	1400	2800	<1	<1		
RM-BS-3	5/12/2011	Chrysene	42	1400	2800	<1	<1		
RM-BS-4	5/12/2011	Chrysene	36	1400	2800	<1	<1		
RM-BS-4	5/12/2011	Chrysene	34	1400	2800	<1	<1		
T107-BS-2	5/10/2011	Chrysene	3.6 T	1400	2800	<1	<1		
T107-BS-4	5/10/2011	Chrysene	3.1 T	1400	2800	<1	<1		
RM-BS-1	5/12/2011	cPAHs TEQ	1041.4					8.9	117
RM-BS-2	5/12/2011	cPAHs TEQ	241.2					8.9	27

Table A-4
Chemicals Detected in Bank Soil Samples
Spokane Street to Kellogg Island

Sample Location	Date Sampled	Chemical	Conc'n (ug/kg)	LAET	2LAET	LAET Exceedance Factor	2LAET Exceedance Factor	LDW Background	LDW Background Exceedance Factor
RM-BS-5	5/12/2011	cPAHs TEQ	214.2					8.9	24
RM-BS-3	5/12/2011	cPAHs TEQ	68.52					8.9	7.7
RM-BS-4	5/12/2011	cPAHs TEQ	35.89					8.9	4.0
T107-BS-1	5/10/2011	cPAHs TEQ	3.76					8.9	<1
T107-BS-2	5/10/2011	cPAHs TEQ	3.61					8.9	<1
T107-BS-4	5/10/2011	cPAHs TEQ	3.32					8.9	<1
RM-BS-1	5/12/2011	Dibenzo(a,h)anthracene	220	230	540	1.0	<1		
RM-BS-1	5/12/2011	Dibenzo(a,h)anthracene	150	230	540	<1	<1		
RM-BS-2	5/12/2011	Dibenzo(a,h)anthracene	34	230	540	<1	<1		
RM-BS-5	5/12/2011	Dibenzo(a,h)anthracene	22	230	540	<1	<1		
RM-BS-5	5/12/2011	Dibenzo(a,h)anthracene	21	230	540	<1	<1		
RM-BS-3	5/12/2011	Dibenzo(a,h)anthracene	10	230	540	<1	<1		
RM-BS-4	5/12/2011	Dibenzo(a,h)anthracene	4.5 T	230	540	<1	<1		
RM-BS-1	5/12/2011	Dibenzofuran	170	540	700	<1	<1		
RM-BS-1	5/12/2011	Dibenzofuran	150	540	700	<1	<1		
RM-BS-2	5/12/2011	Dibenzofuran	36	540	700	<1	<1		
RM-BS-5	5/12/2011	Dibenzofuran	11	540	700	<1	<1		
RM-BS-4	5/12/2011	Dibenzofuran	7.2	540	700	<1	<1		
RM-BS-1	5/12/2011	Di-n-butyl phthalate	42	6200	6200	<1	<1		
RM-BS-1	5/12/2011	Dioxin/Furans TEQ (ng/kg)	25.56					1.6	16
RM-BS-2	5/12/2011	Dioxin/Furans TEQ (ng/kg)	11.43					1.6	7.1
RM-BS-4	5/12/2011	Dioxin/Furans TEQ (ng/kg)	4.48					1.6	2.8
RM-BS-5	5/12/2011	Dioxin/Furans TEQ (ng/kg)	3.47					1.6	2.2
T107-BS-3	5/10/2011	Dioxin/Furans TEQ (ng/kg)	1.87					1.6	1.2
RM-BS-3	5/12/2011	Dioxin/Furans TEQ (ng/kg)	0.97					1.6	<1
T107-BS-4	5/10/2011	Dioxin/Furans TEQ (ng/kg)	0.73					1.6	<1
T107-BS-5	5/10/2011	Dioxin/Furans TEQ (ng/kg)	0.67					1.6	<1
T107-BS-2	5/10/2011	Dioxin/Furans TEQ (ng/kg)	0.36					1.6	<1
T107-BS-1	5/10/2011	Dioxin/Furans TEQ (ng/kg)	0.22					1.6	<1
RM-BS-1	5/12/2011	Fluoranthene	750	1700	2500	<1	<1		
RM-BS-1	5/12/2011	Fluoranthene	630	1700	2500	<1	<1		
RM-BS-2	5/12/2011	Fluoranthene	360	1700	2500	<1	<1		
RM-BS-5	5/12/2011	Fluoranthene	260	1700	2500	<1	<1		
RM-BS-5	5/12/2011	Fluoranthene	170	1700	2500	<1	<1		
RM-BS-3	5/12/2011	Fluoranthene	150	1700	2500	<1	<1		

Table A-4
Chemicals Detected in Bank Soil Samples
Spokane Street to Kellogg Island

Sample Location	Date Sampled	Chemical	Conc'n (ug/kg)	LAET	2LAET	LAET Exceedance Factor	2LAET Exceedance Factor	LDW Background	LDW Background Exceedance Factor
RM-BS-2	5/12/2011	Fluoranthene	93	1700	2500	<1	<1		
RM-BS-4	5/12/2011	Fluoranthene	58	1700	2500	<1	<1		
RM-BS-4	5/12/2011	Fluoranthene	54	1700	2500	<1	<1		
RM-BS-3	5/12/2011	Fluoranthene	51	1700	2500	<1	<1		
T107-BS-1	5/10/2011	Fluoranthene	22	1700	2500	<1	<1		
T107-BS-2	5/10/2011	Fluoranthene	10	1700	2500	<1	<1		
T107-BS-4	5/10/2011	Fluoranthene	4.2 T	1700	2500	<1	<1		
T107-BS-3	5/10/2011	Fluoranthene	3.4 T	1700	2500	<1	<1		
RM-BS-1	5/12/2011	Fluorene	110	540	1000	<1	<1		
RM-BS-1	5/12/2011	Fluorene	96	540	1000	<1	<1		
RM-BS-4	5/12/2011	Fluorene	11	540	1000	<1	<1		
RM-BS-2	5/12/2011	Fluorene	8.7	540	1000	<1	<1		
RM-BS-5	5/12/2011	Fluorene	5.5	540	1000	<1	<1		
RM-BS-1	5/12/2011	Indeno(1,2,3-cd)pyrene	520	600	690	<1	<1		
RM-BS-1	5/12/2011	Indeno(1,2,3-cd)pyrene	390	600	690	<1	<1		
RM-BS-5	5/12/2011	Indeno(1,2,3-cd)pyrene	80	600	690	<1	<1		
RM-BS-5	5/12/2011	Indeno(1,2,3-cd)pyrene	74	600	690	<1	<1		
RM-BS-2	5/12/2011	Indeno(1,2,3-cd)pyrene	68	600	690	<1	<1		
RM-BS-3	5/12/2011	Indeno(1,2,3-cd)pyrene	54	600	690	<1	<1		
RM-BS-2	5/12/2011	Indeno(1,2,3-cd)pyrene	50	600	690	<1	<1		
RM-BS-3	5/12/2011	Indeno(1,2,3-cd)pyrene	28	600	690	<1	<1		
RM-BS-4	5/12/2011	Indeno(1,2,3-cd)pyrene	26	600	690	<1	<1		
RM-BS-4	5/12/2011	Indeno(1,2,3-cd)pyrene	13	600	690	<1	<1		
T107-BS-1	5/10/2011	Indeno(1,2,3-cd)pyrene	4.8 T	600	690	<1	<1		
RM-BS-1	5/12/2011	Naphthalene	430	2100	2400	<1	<1		
RM-BS-1	5/12/2011	Naphthalene	350	2100	2400	<1	<1		
RM-BS-2	5/12/2011	Naphthalene	100	2100	2400	<1	<1		
RM-BS-5	5/12/2011	Naphthalene	31	2100	2400	<1	<1		
RM-BS-2	5/12/2011	Naphthalene	23	2100	2400	<1	<1		
RM-BS-4	5/12/2011	Naphthalene	9.5	2100	2400	<1	<1		
RM-BS-3	5/12/2011	Naphthalene	3.2 T	2100	2400	<1	<1		
T107-BS-3	5/10/2011	Naphthalene	3 T	2100	2400	<1	<1		
T107-BS-5	5/10/2011	Naphthalene	2.8 T	2100	2400	<1	<1		
RM-BS-1	5/12/2011	Phenanthrene	740	1500	5400	<1	<1		
RM-BS-1	5/12/2011	Phenanthrene	680	1500	5400	<1	<1		

Table A-4
Chemicals Detected in Bank Soil Samples
Spokane Street to Kellogg Island

Sample Location	Date Sampled	Chemical	Conc'n (ug/kg)	LAET	2LAET	LAET Exceedance Factor	2LAET Exceedance Factor	LDW Background	LDW Background Exceedance Factor
RM-BS-2	5/12/2011	Phenanthrene	170	1500	5400	<1	<1		
RM-BS-5	5/12/2011	Phenanthrene	110	1500	5400	<1	<1		
RM-BS-3	5/12/2011	Phenanthrene	74	1500	5400	<1	<1		
RM-BS-5	5/12/2011	Phenanthrene	70	1500	5400	<1	<1		
RM-BS-4	5/12/2011	Phenanthrene	60	1500	5400	<1	<1		
RM-BS-2	5/12/2011	Phenanthrene	41	1500	5400	<1	<1		
RM-BS-4	5/12/2011	Phenanthrene	36	1500	5400	<1	<1		
RM-BS-3	5/12/2011	Phenanthrene	11	1500	5400	<1	<1		
T107-BS-2	5/10/2011	Phenanthrene	9.3	1500	5400	<1	<1		
T107-BS-4	5/10/2011	Phenanthrene	7.3	1500	5400	<1	<1		
T107-BS-1	5/10/2011	Phenanthrene	6.4	1500	5400	<1	<1		
T107-BS-5	5/10/2011	Phenanthrene	4 T	1500	5400	<1	<1		
RM-BS-1	5/12/2011	Phenol	82	420	1200	<1	<1		
RM-BS-1	5/12/2011	Pyrene	670	2600	3300	<1	<1		
RM-BS-1	5/12/2011	Pyrene	570	2600	3300	<1	<1		
RM-BS-2	5/12/2011	Pyrene	340	2600	3300	<1	<1		
RM-BS-5	5/12/2011	Pyrene	260	2600	3300	<1	<1		
RM-BS-5	5/12/2011	Pyrene	190	2600	3300	<1	<1		
RM-BS-3	5/12/2011	Pyrene	160	2600	3300	<1	<1		
RM-BS-2	5/12/2011	Pyrene	110	2600	3300	<1	<1		
RM-BS-3	5/12/2011	Pyrene	63	2600	3300	<1	<1		
RM-BS-4	5/12/2011	Pyrene	57	2600	3300	<1	<1		
RM-BS-4	5/12/2011	Pyrene	52	2600	3300	<1	<1		
T107-BS-2	5/10/2011	Pyrene	9.5	2600	3300	<1	<1		
T107-BS-1	5/10/2011	Pyrene	5	2600	3300	<1	<1		
T107-BS-3	5/10/2011	Pyrene	2.8 T	2600	3300	<1	<1		
T107-BS-4	5/10/2011	Pyrene	2.2 T	2600	3300	<1	<1		
RM-BS-1	5/12/2011	Total Benzofluoranthenes	1600	3200	3600	<1	<1		
RM-BS-1	5/12/2011	Total Benzofluoranthenes	1300	3200	3600	<1	<1		
RM-BS-2	5/12/2011	Total Benzofluoranthenes	320	3200	3600	<1	<1		
RM-BS-5	5/12/2011	Total Benzofluoranthenes	300	3200	3600	<1	<1		
RM-BS-5	5/12/2011	Total Benzofluoranthenes	210	3200	3600	<1	<1		
RM-BS-3	5/12/2011	Total Benzofluoranthenes	140	3200	3600	<1	<1		
RM-BS-2	5/12/2011	Total Benzofluoranthenes	130	3200	3600	<1	<1		
RM-BS-3	5/12/2011	Total Benzofluoranthenes	94	3200	3600	<1	<1		

Table A-4
Chemicals Detected in Bank Soil Samples
Spokane Street to Kellogg Island

Sample Location	Date Sampled	Chemical	Conc'n (ug/kg)	LAET	2LAET	LAET Exceedance Factor	2LAET Exceedance Factor	LDW Background	LDW Background Exceedance Factor
RM-BS-4	5/12/2011	Total Benzofluoranthenes	62	3200	3600	<1	<1		
RM-BS-4	5/12/2011	Total Benzofluoranthenes	52	3200	3600	<1	<1		
RM-BS-1	5/12/2011	Total HPAHs	5880	12000	17000	<1	<1		
RM-BS-1	5/12/2011	Total HPAHs	5290	12000	17000	<1	<1		
RM-BS-2	5/12/2011	Total HPAHs	1746	12000	17000	<1	<1		
RM-BS-5	5/12/2011	Total HPAHs	1443	12000	17000	<1	<1		
RM-BS-5	5/12/2011	Total HPAHs	1058	12000	17000	<1	<1		
RM-BS-3	5/12/2011	Total HPAHs	815	12000	17000	<1	<1		
RM-BS-2	5/12/2011	Total HPAHs	621	12000	17000	<1	<1		
RM-BS-3	5/12/2011	Total HPAHs	403	12000	17000	<1	<1		
RM-BS-4	5/12/2011	Total HPAHs	314	12000	17000	<1	<1		
RM-BS-4	5/12/2011	Total HPAHs	281.5 J	12000	17000	<1	<1		
T107-BS-1	5/10/2011	Total HPAHs	38.1 J	12000	17000	<1	<1		
T107-BS-2	5/10/2011	Total HPAHs	27 J	12000	17000	<1	<1		
T107-BS-4	5/10/2011	Total HPAHs	9.5 J	12000	17000	<1	<1		
T107-BS-3	5/10/2011	Total HPAHs	6.2 J	12000	17000	<1	<1		
RM-BS-1	5/12/2011	Total LPAHs	1502	5200	13000	<1	<1		
RM-BS-1	5/12/2011	Total LPAHs	1281	5200	13000	<1	<1		
T107-BS-1	5/10/2011	Total LPAHs	1006.4	5200	13000	<1	<1		
RM-BS-2	5/12/2011	Total LPAHs	354.7	5200	13000	<1	<1		
RM-BS-5	5/12/2011	Total LPAHs	194.3	5200	13000	<1	<1		
RM-BS-4	5/12/2011	Total LPAHs	102.6 J	5200	13000	<1	<1		
RM-BS-3	5/12/2011	Total LPAHs	74	5200	13000	<1	<1		
RM-BS-5	5/12/2011	Total LPAHs	70	5200	13000	<1	<1		
RM-BS-2	5/12/2011	Total LPAHs	64	5200	13000	<1	<1		
RM-BS-4	5/12/2011	Total LPAHs	36	5200	13000	<1	<1		
RM-BS-3	5/12/2011	Total LPAHs	24.4 J	5200	13000	<1	<1		
T107-BS-3	5/10/2011	Total LPAHs	22 J	5200	13000	<1	<1		
T107-BS-2	5/10/2011	Total LPAHs	9.3	5200	13000	<1	<1		
T107-BS-4	5/10/2011	Total LPAHs	7.3	5200	13000	<1	<1		
T107-BS-5	5/10/2011	Total LPAHs	6.8 J	5200	13000	<1	<1		
RM-BS-5	5/12/2011	Total PCBs	78	130	1000	<1	<1	6.5	12
RM-BS-1	5/12/2011	Total PCBs	47	130	1000	<1	<1	6.5	7.2
RM-BS-4	5/12/2011	Total PCBs	47	130	1000	<1	<1	6.5	7.2
RM-BS-2	5/12/2011	Total PCBs	16	130	1000	<1	<1	6.5	2.5
T107-BS-4	5/10/2011	Total PCBs	2.2 J	130	1000	<1	<1	6.5	<1

Table A-4
Chemicals Detected in Bank Soil Samples
Spokane Street to Kellogg Island

mg/kg - Milligram per kilogram
ug/kg - Micrograms per kilogram
ng/kg - Nanograms per kilogram
J = Estimated value.
T = Value is between the MDL and MRL.
SMS - Sediment Management Standard (Washington Administrative Code 173-204)
SQS - SMS Sediment Quality Standard
CSL - SMS Cleanup Screening Level
LAET - Lowest Apparent Effects Threshold
2LAET - Second LAET
cPAHs - Carginogenic polycyclic aromatic hydrocarbons
PCB - Polychlorinated biphenyl
LDW - Lower Duwamish Waterway
TEQ - Toxic Equivalency

Table presents detected chemicals only.
Exceedance factors are the ratio of the detected concentrations to the SQS/CSL or LAET/2LAET; exceedance factors are shown only if they are greater than 1.

Appendix B
Historical Aerial Photograph Review

Appendix B

Lower Duwamish Waterway
RM 0.0-1.0 West (Spokane Street to Kellogg Island)
Historical Aerial Photograph Review

In an effort to more thoroughly understand and evaluate historical facility operations and development within the RM 0.0-1.0 West (Spokane Street to Kellogg Island) source control area, SAIC reviewed historical aerial photographs from 1936 to 2006. These photographs represent conditions from roughly each decade. Additional photographs from supplementary years are available; however, if during a cursory assessment there were no apparent changes, photographs less than a decade apart were not included in this summary. Aerial photographs for years 1936, 1946, 1956, 1960, 1969, 1974, 1980, 1990, 1993, 1995, 2001, 2004, and 2006 are described below.

For the purpose of discussion, the source control area has been divided into a northern section and southern section. Current-day street names are used as reference points. In the description for each photograph, the historical name for a facility or property is used, if known (with the exception of the current and historically owned Port of Seattle properties). If unknown, the most recent name is used. The full extent of the properties currently and historically owned by the Port of Seattle is shown on each photograph and identified by the Port's name. Historical facilities on these properties are also identified. Numbers in parentheses correspond to the numbers listed on the aerial photographs. In general, the year of facility-specific building construction is presented in the text for each upland facility and is not discussed in this photograph review.

The boundary of the source control area is provided on the aerial photographs as a general reference. The source control area boundary follows the current shoreline of the LDW between RM 0.0 and 1.0 West. The western shoreline in this area has been altered through fill, dredging, and restoration activities since the late 1800s. Therefore, the source control area boundary does not follow the shoreline on all historical photographs. Effort was made to match the source control area boundary to landscape features; however, there are discrepancies due to differing scales between photographs.

The boundaries of the SW Dakota Street and SW Idaho Street storm drain basins are also provided, only as a general reference. It should be noted that the current storm drain basins have not been present since 1936.

Facility Identification Key

1. Pacific Coast Forge Company (1936), Bethlehem Steel (1946-1980), Seattle Steel Fasteners/Duwamish Harbor Facilities (1990-1993), Riverside Mill (1995-2006)
2. BNSF Railroad Right-of-Way
3. General Construction (1936-1980), Fletcher General Construction (1990-1995), Port of Seattle Terminal 103 (2000-2006)
    a. General Construction (2000-2006)
    b. Glacier Northwest/Northwest Aggregates/Cal Portland (1995-2006)
4. Global Diving & Salvage
5. Port of Seattle Terminal 105
    a. C.M. Lovestead (1946-1960), Liquid Disposal Corporation (1969-1980), Duroboat Manufacturing (1980), Terminal 105 Park (1990-2006)
    b. Riverside Marina (1946-1980)
    c. Manufacturers Mineral Company (1936-1956)
    d. Pioneer Marina (1946-1980)
    e. Wallace Bridge and Structural Steel/Wallace Building (1936-1956)
    f. Pacific Stove and Foundry Company/Pacific Stove and Stamping Company (1936-1946), Gene Summy Lumber (1960-1974)
    g. Puget Sound Tug & Barge (1980), Crowley Marine (1990-1995)
6. Pacific Rendering
7. Soule Steel Company (1956-1960), Bird Johnson (1969-1974), Ferguson Enterprises (2000-2006)
8. Birmingham Steel (1995-2001), General Recycling of Washington (2004-2006)
9. Former Seaboard Lumber (1936-1980), PACCAR/Northwest Container Services (1990-1995)
    a. Evergreen Trails (2000-2006)
    b. Herring's House Park (2000-2006)
10. Port of Seattle Terminal 107 (includes Kellogg Island)
    a. Goodspeed's Addition (1936-1974), Terminal 107 Park (1980-2006)
    b. A. Abrahamson Brick Company (1936-1960), possible cement kiln dust fill (1969), lumber storage, operator unknown (1974), Alaska Marine Lines or other tractor-truck storage (1980-2006)
11. Manganese Products Manufacturing/Alaska Freight Building (1936-1980)
12. Former Fraser Properties
13. West Seattle Recycling Center
14. Former Concrete Restoration
15. Heathco/Penthouse Drapery
16. Gasoline service station/Dry cleaning (1936-1960), D&K Auto and Truck Salvage/Aable Auto (1969-1995), 4101 West Marginal Way Business Park (2004-2006)
17. Olympic Brick Company (1936), Glencoe Foundry (1946), Blake Moffit & Towne (1956-1960), Saxon Realty Corporation (1969), Seafirst Bank/Bank of America (1974-2001), Seattle Parks & Recreation Westbridge Maintenance Facility (2003-2006)
18. New Finishes/Pacifica
19. Continental Van Lines
20. AirClean Technologies Building
21. Former Central Painting
22. Fog Tite
23. Evergreen Building Products
24. Heath Landscape Services
25. West Seattle Estates
26. South Seattle Community College
27. Puget Park and the McFarland Property
28. A. Abrahamson Brick Company (1936-1974), Washington Federal Savings & Loan Property (1980-2006)

1936 (Figures B-1a and B-1b)

Pacific Coast Forge Company (1) is operating a mill on the property directly south of Spokane Street (Figure B-1a). The BNSF Railroad right-of-way (2) is located to the south of this facility. General Construction operates at the current Terminal 103 property (3) for the storage of construction-related materials. In 1934, a severe storm destroyed much of the historical Terminal 105 property (5) including a marine railway, launching skidways, and an electric traveling crane (Kennedy/Jenks 1991b). The southern portion of Terminal 105 was occupied by the Wallace Bridge & Structural Steel Co. (5e), Pacific Stove and Foundry Company/Pacific Stove and Stamping Company (5f) and Manganese Products Manufacturing (11). The Manganese Products Manufacturing building was later renamed the Alaska Freight Building. Floating log operations are also visible on the LDW between Kellogg Island and the west bank of the river. The upland area adjacent to the west side of the Terminal 103 property and to the northwest side of the Terminal 105 property is mostly residential housing (between 12 and 14). A gasoline service station (16) and the Olympic Brick Company (17) are present on the western side of West Marginal Way SW. The current Continental Van Lines building (19) is present.

The northern portion of Terminal 107 (10), occupied by Goodspeed's Addition residential and commercial area (10a), includes residential structures and a general store (Figure B-1b). A. Abrahamson Brick Company (10b) is present at the southern end of Terminal 107. The eastern bank of Kellogg Island is straight, the result of channel cutting by USACE (SoundEarth 2011a). A. Abrahamson Brick Company is also operating on the western side of West Marginal Way SW (28) on the current Washington Federal Savings & Loan property.

1936 Figure Key

1. Pacific Coast Forge Company
2. BNSF Railroad Right-of-Way
3. General Construction
5. Port of Seattle Terminal 105 (properties did not become Port-owned until 1967)
    c. Manufacturers Mineral Company
    e. Wallace Bridge and Structural Steel/Wallace Building
    f. Pacific Stove and Foundry Company/Pacific Stove and Stamping Company
9. Former Seaboard Lumber
10. Port of Seattle Terminal 107 (includes Kellogg Island, properties did not become Port-owned until the late 1960s)
    a. Goodspeed's Addition
    b. A. Abrahamson Brick Company
11. Manganese Products Manufacturing/Alaska Freight Building
12. Former Fraser Properties
14. Former Concrete Restoration
16. Gasoline service station/Dry cleaning
17. Olympic Brick Company
19. Continental Van Lines
28. A. Abrahamson Brick Company

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Figure B–1a. RM 0.0 to 1.0 West (Spokane Street to Kellogg Island): 1936 Aerial Photo, Northern Portion

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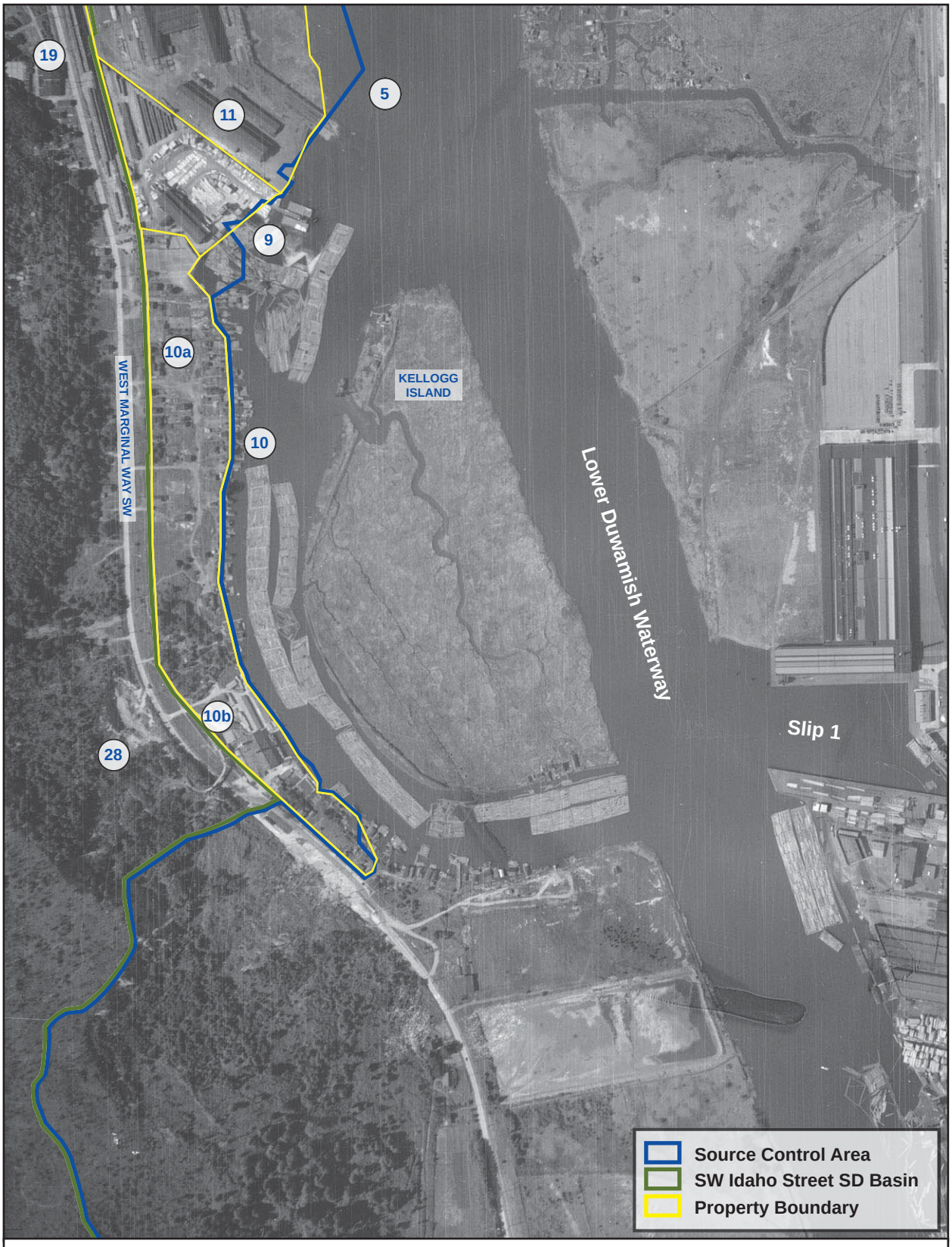

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Figure B–1b. RM 0.0 to 1.0 West (Spokane Street to Kellogg Island): 1936 Aerial Photo, Southern Portion

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1946 (Figures B-2a and B-2b)

Industrial development has increased from the 1936 photograph. New roads and buildings are present on the Terminal 103 and 105 properties (3 and 5). The Terminal 105 property includes docks and a boat-lift elevator developed in 1940. Warehouses operated by C.M. Lovestead are visible (5a). The shoreline of the Terminal 105 property has been modified from the 1936 photograph, and Riverside Marina (5b) and Pioneer Marina are also visible (Kennedy/Jenks 1991b). The Wallace Building (5e) and Alaska Freight Building (11) remain unchanged from the 1936 photograph, although new roads have been constructed in the area. The upland area appears to be further developed as a residential area (between 12 and 14). Glencoe Foundry is operating on the upland property now known as the Seattle Parks and Recreation Westbridge Maintenance Facility (17). New development is occurring between the Glencoe Foundry and the current Continental Van Lines building (19). Development is taking place in the area currently known as the West Seattle Estates (25).

Roads are further developed and there appear to be more buildings on the Terminal 107 property (10) and on the western side of West Marginal Way SW, upland from the terminal property. Development is taking place in the area now known as Puget Park and the McFarland property (27). Clay mining and possible CKD fill operations are underway to the southwest of the A. Abrahamson Brick Co. (28) (Figure B-2b). The outline of Kellogg Island has changed from the 1936 photograph. The island appears smaller and the eastern shoreline is no longer straight.

1946 Figure Key

1. Bethlehem Steel
2. BNSF Railroad Right-of-Way
3. General Construction
5. Port of Seattle Terminal 105 (properties did not become Port-owned until 1967)
    a. C.M. Lovestead
    b. Riverside Marina
    c. Manufacturers Mineral Company
    d. Pioneer Marina
    e. Wallace Bridge and Structural Steel/Wallace Building
    f. Pacific Stove and Foundry Company/Pacific Stove and Stamping Company
9. Former Seaboard Lumber
10. Port of Seattle Terminal 107 (includes Kellogg Island, properties did not become Port-owned until the late 1960s)
    a. Goodspeed's Addition
    b. A. Abrahamson Brick Company
11. Manganese Products Manufacturing/Alaska Freight Building
12. Former Fraser Properties
14. Former Concrete Restoration
16. Gasoline service station/Dry cleaning
17. Glencoe Foundry
19. Continental Van Lines
25. West Seattle Estates
26. South Seattle Community College
27. Puget Park and the McFarland Property
28. A. Abrahamson Brick Company

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Figure B–2a. RM 0.0 to 1.0 West (Spokane Street to Kellogg Island): 1946 Aerial Photo, Northern Portion

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Figure B–2b. RM 0.0 to 1.0 West (Spokane Street to Kellogg Island): 1946 Aerial Photo, Southern Portion

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1956 (Figures B-3a and B-3b)

Development on the Terminal 103 property has not changed significantly from the 1946 photograph (Figure B-3a). The Wallace Building (5e) is still present on the southern portion of Terminal 105; the Alaska Freight Building (11) remains unchanged, but the Wallace Building has been modified. There is increased dock space for boats on the Terminal 105 property (Kennedy/Jenks 1991b). Soule Steel operates in Building I-1(7), which is now present on the Terminal 105 property east of Marginal Way and west of Riverside Marina (5b) (EcoChem 1997). The upland area continues to be developed. A large building, now known as the Westbridge Maintenance Building, has been built by Blake Moffit & Towne (17). A warehouse has also been built directly to the south of the Westbridge Building on what is now New Finishes/Pacifica (18). Both of these buildings exist on these properties today.

A large number of floating logs are present surrounding Kellogg Island (Figure B-3b). There appears to be some fill activity visible at the southern end of the Terminal 107 property (10b). The majority of the fill activity at Terminal 107 occurred between 1950 and 1970 (SoundEarth 2011a). Increased development is taking place on the western side of West Marginal Way SW, upland from the Terminal 107 property (north of 27). The clay mining operations to the southwest of A. Abrahamson Brick Co. are no longer visible, though buildings associated with the company's operations are still visible (28).

1956 Figure Key

1. Bethlehem Steel
2. BNSF Railroad Right-of-Way
3. General Construction
5. Port of Seattle Terminal 105 (properties did not become Port-owned until 1967)
    a. C.M. Lovestead
    b. Riverside Marina
    c. Manufacturers Mineral Company
    d. Pioneer Marina
    e. Wallace Bridge and Structural Steel/Wallace Building
7. Soule Steel Company
9. Former Seaboard Lumber
10. Port of Seattle Terminal 107 (includes Kellogg Island, properties did not become Port-owned until the late 1960s)
    a. Goodspeed's Addition
    b. A. Abrahamson Brick Company
11. Manganese Products Manufacturing/Alaska Freight Building
12. Former Fraser Properties
14. Former Concrete Restoration
16. Gasoline service station/Dry cleaning
17. Blake Moffit & Towne
18. New Finishes/Pacifica
19. Continental Van Lines
25. West Seattle Estates
27. Puget Park and the McFarland Property
28. A. Abrahamson Brick Company

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Figure B–3a. RM 0.0 to 1.0 West (Spokane Street to Kellogg Island): 1956 Aerial Photo, Northern Portion

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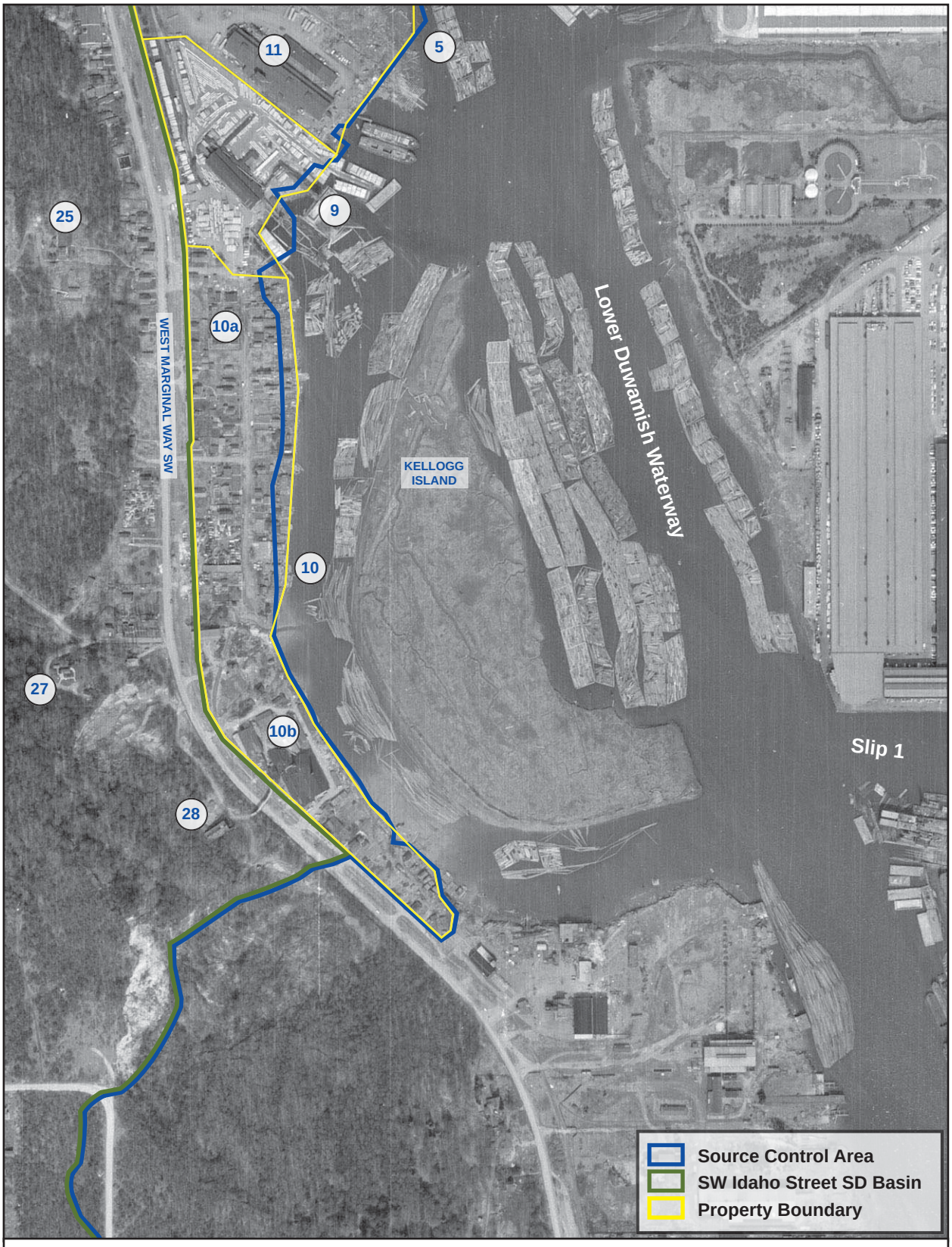

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Figure B–3b. RM 0.0 to 1.0 West (Spokane Street to Kellogg Island): 1956 Aerial Photo, Southern Portion

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1960 (Figures B-4a and B-4b)

During this time, the Port of Seattle purchased the property containing the Alaska Freight Building (11). The Wallace Building has been demolished in this 1960 photograph (Figure B-4a). Other development has not significantly changed from the 1956 photograph.

Seaboard Lumber (9) log operations are abundant in this 1960 photograph (Figure B-4b), with logs spread up to and around Kellogg Island (Kennedy/Jenks 1991b).

1960 Figure Key

1. Bethlehem Steel
2. BNSF Railroad Right-of-Way
3. General Construction
5. Port of Seattle Terminal 105 (properties did not become Port-owned until 1967)
    a. C.M. Lovestead
    b. Riverside Marina
    d. Pioneer Marina
    f. Gene Summy Lumber
7. Soule Steel Company
9. Former Seaboard Lumber
10. Port of Seattle Terminal 107 (includes Kellogg Island, properties did not become Port-owned until the late 1960s)
    a. Goodspeed's Addition
    b. A. Abrahamson Brick Company
11. Manganese Products Manufacturing/Alaska Freight Building
12. Former Fraser Properties
14. Former Concrete Restoration
16. Gasoline service station/Dry cleaning
17. Blake Moffit & Towne
18. New Finishes/Pacifica
19. Continental Van Lines
25. West Seattle Estates
27. Puget Park and the McFarland Property
28. A. Abrahamson Brick Company

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Figure B–4a. RM 0.0 to 1.0 West (Spokane Street to Kellogg Island): 1960 Aerial Photo, Northern Portion

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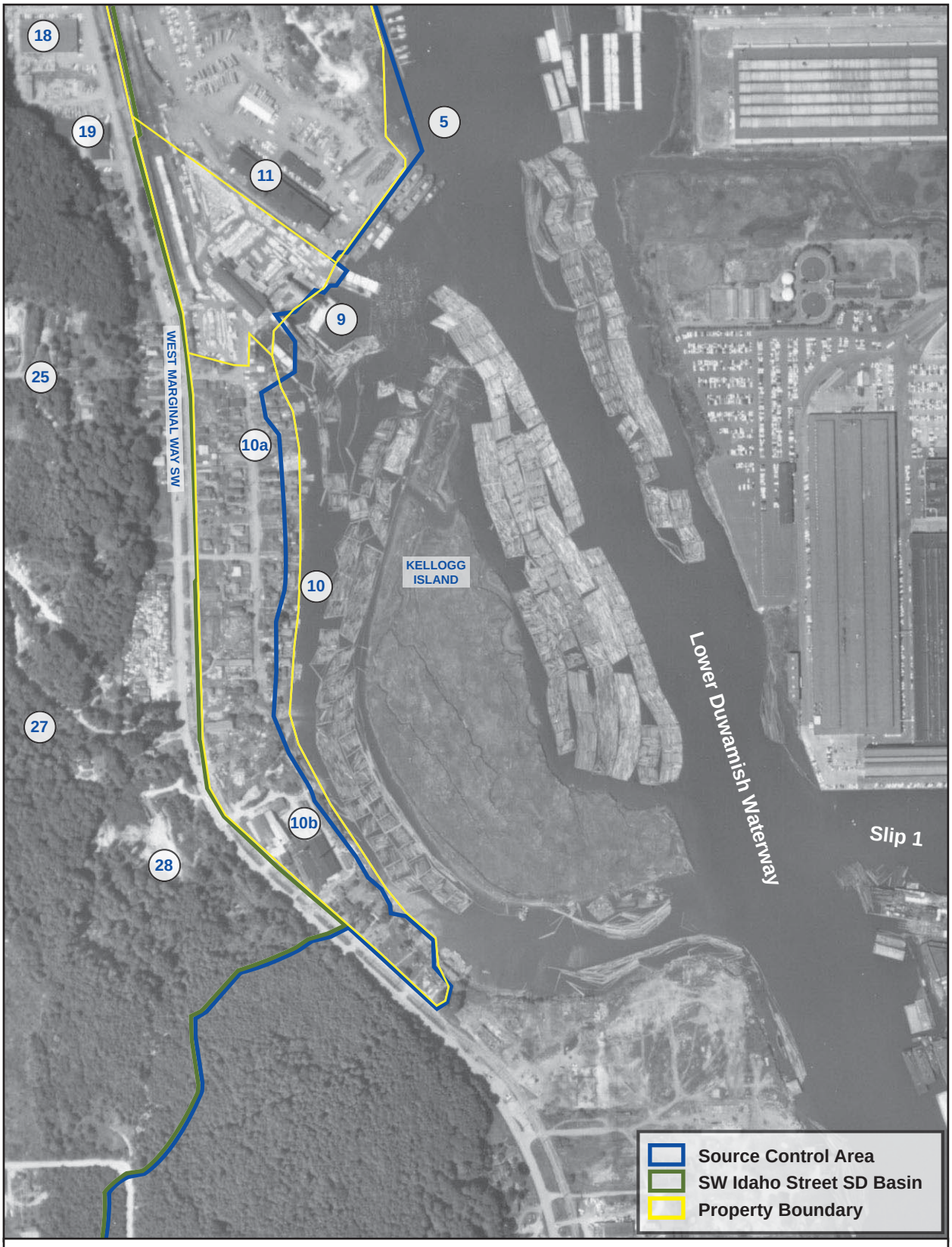

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Figure B–4b. RM 0.0 to 1.0 West (Spokane Street to Kellogg Island): 1960 Aerial Photo, Southern Portion

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1969 (Figures B-5a and B-5b)

A new building has been constructed on the Bethlehem Steel property (1) directly south of Spokane Street (Figure B-5a). Building W-5 at Terminal 105 has been constructed just south of SW Dakota Street, near the shoreline. A portion of the Terminal 105 property, north of the Seaboard Lumber property, is being used as a log storage yard by Gene Summy Lumber (5f) (Kennedy/Jenks 1991b).

In 1969 the Port of Seattle purchased Terminal 107 (10). A. Abrahamson Brick Co. and the area immediately north of the brick factory have been cleared and filled with possible CKD (10b) (Figure B-5b) (SoundEarth 2011a). The former Central Painting building (21) and Fog Tite (22) are now visible.

1969 Figure Key

1. Bethlehem Steel
2. BNSF Railroad Right-of-Way
3. General Construction
5. Port of Seattle Terminal 105
    a. Liquid Disposal Corporation
    b. Riverside Marina
    d. Pioneer Marina
    f. Gene Summy Lumber
7. Bird Johnson
9. Former Seaboard Lumber
10. Port of Seattle Terminal 107 (includes Kellogg Island)
    a. Goodspeed's Addition
    b. Possible cement kiln dust fill
11. Manganese Products Manufacturing/Alaska Freight Building
12. Former Fraser Properties
14. Former Concrete Restoration
16. D&K Auto and Truck Salvage/Aable Auto
17. Saxon Realty Corporation
18. New Finishes/Pacifica
19. Continental Van Lines
21. Former Central Painting
22. Fog Tite
25. West Seattle Estates
27. Puget Park and the McFarland Property
28. A. Abrahamson Brick Company

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Figure B–5a. RM 0.0 to 1.0 West (Spokane Street to Kellogg Island): 1969 Aerial Photo, Northern Portion

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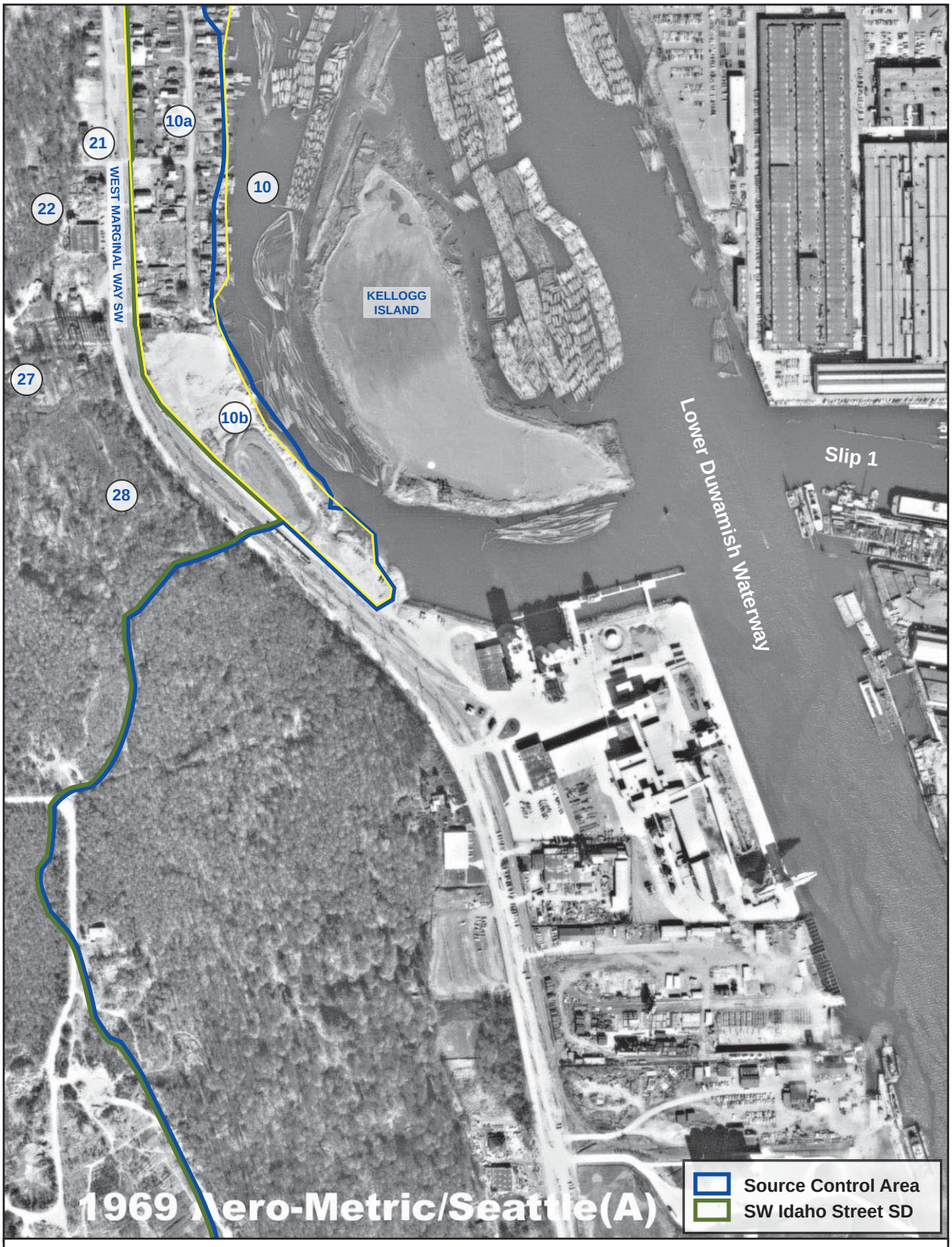

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Figure B–5b. RM 0.0 to 1.0 West (Spokane Street to Kellogg Island): 1969 Aerial Photo, Southern Portion

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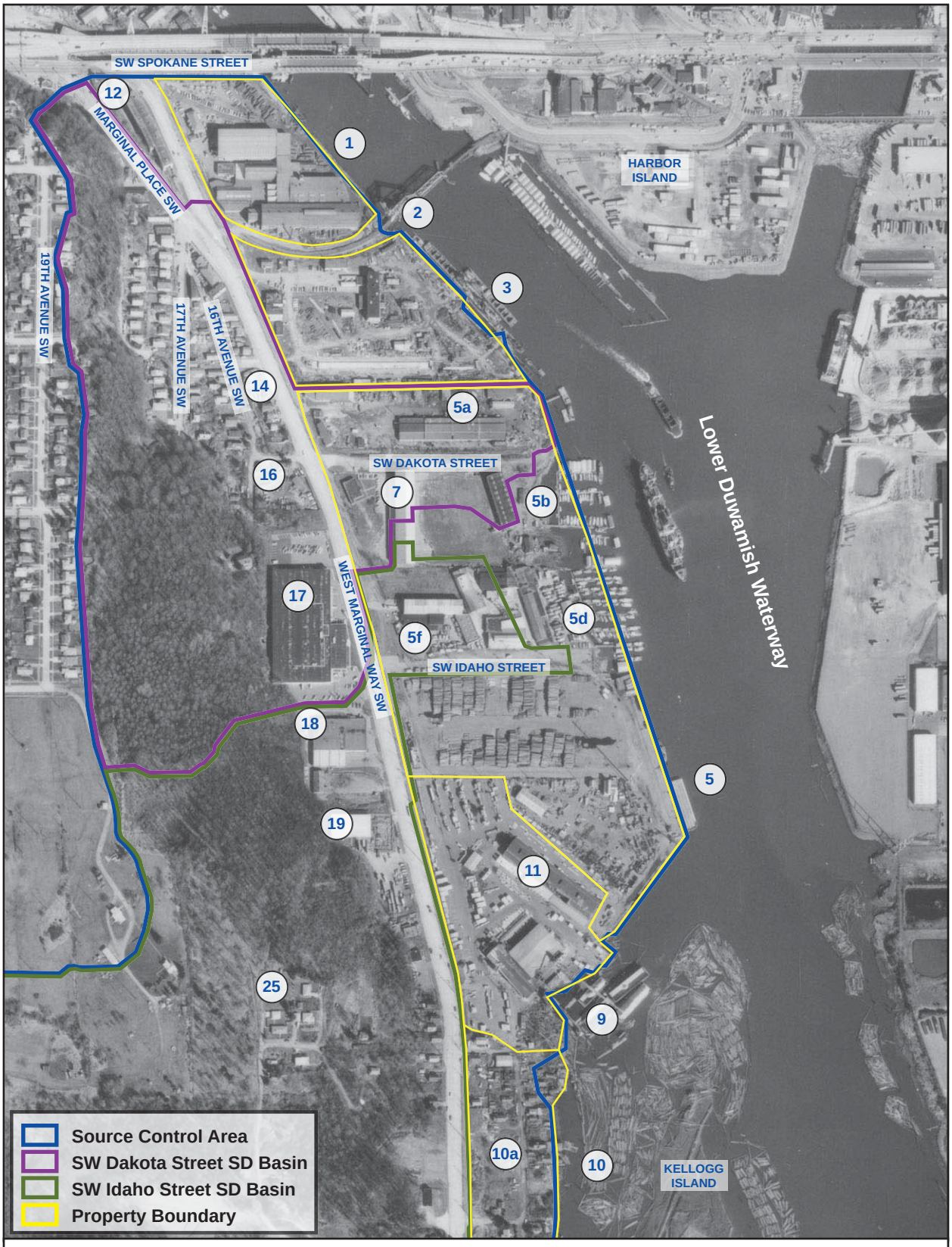
1974 (Figures B-6a and B-6b)

Development in the northern portion of the source control area has not changed significantly from the 1969 photograph (Figure B-6a). Seaboard Lumber occupies the full property known as the former Seaboard Lumber property, including the northern portion and the Alaska Freight Building (11). This tract of land was acquired by Seaboard lumber in 1970 and appears to have been paved in this photograph (ESL 1992). Additional homes appear to have been constructed at West Seattle Estates (25).

It appears that the filled area at the southern end of the Terminal 107 property (10b) is also being used as a log storage yard (Figure B-6b). Fill activity is taking place at the former A. Abrahamson Brick Company property on the western side of West Marginal Way SW (28). Development of South Seattle Community College is visible (26).

1974 Figure Key

1. Bethlehem Steel
2. BNSF Railroad Right-of-Way
3. General Construction
5. Port of Seattle Terminal 105
    a. Liquid Disposal Corporation
    b. Riverside Marina
    d. Pioneer Marina
    f. Gene Summy Lumber
7. Bird Johnson
9. Former Seaboard Lumber
10. Port of Seattle Terminal 107 (includes Kellogg Island)
    a. Goodspeed's Addition
    b. Lumber storage, operator unknown
11. Manganese Products Manufacturing/Alaska Freight Building
12. Former Fraser Properties
14. Former Concrete Restoration
16. D&K Auto and Truck Salvage/Aable Auto
17. Seafirst Bank/Bank of America
18. New Finishes/Pacifica
19. Continental Van Lines
21. Former Central Painting
22. Fog Tite
25. West Seattle Estates
26. South Seattle Community College
27. Puget Park and the McFarland Property
28. A. Abrahamson Brick Company



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State of Washington

N

Figure B–6a. RM 0.0 to 1.0 West (Spokane Street to Kellogg Island): 1974 Aerial Photo, Northern Portion

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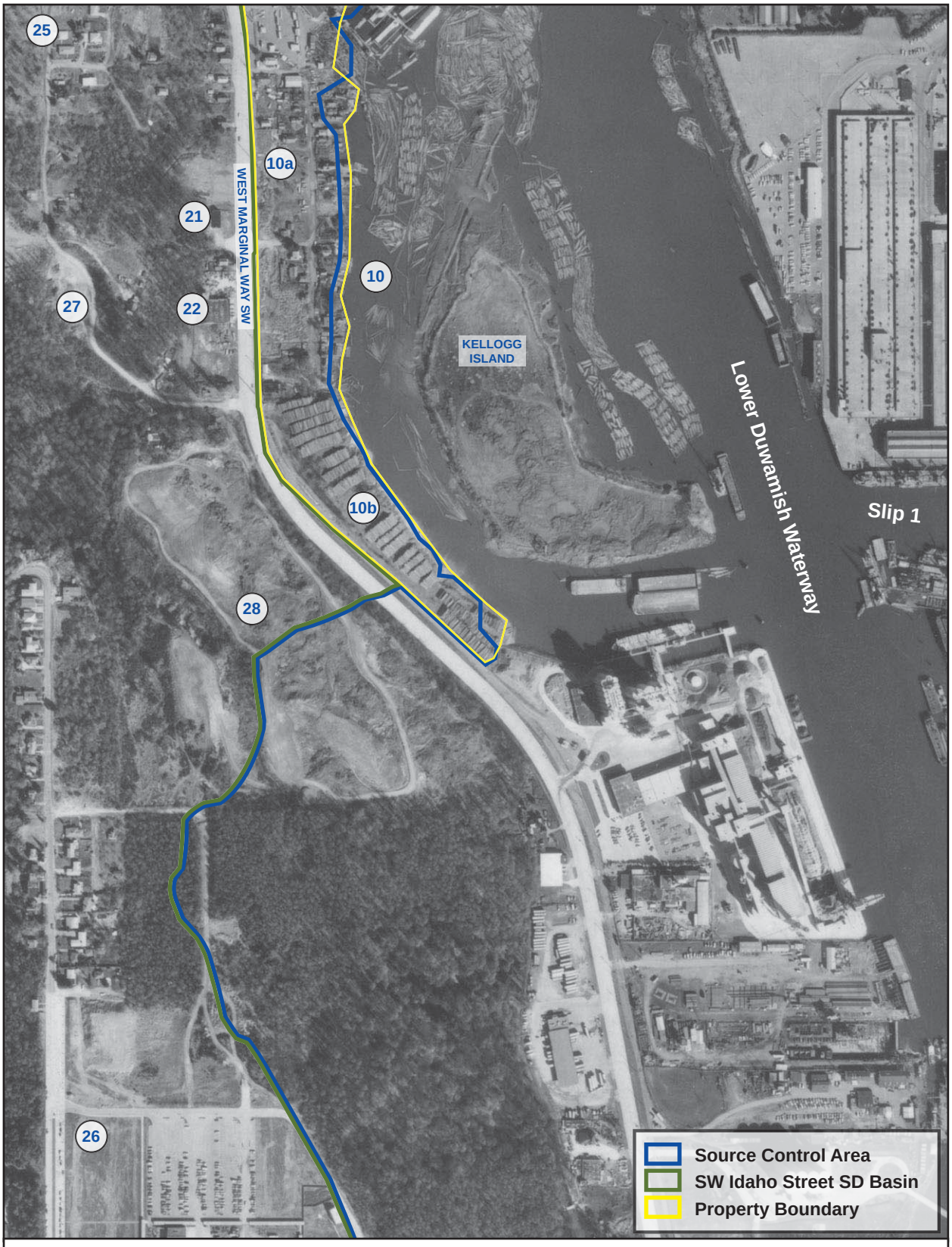

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Figure B–6b. RM 0.0 to 1.0 West (Spokane Street to Kellogg Island): 1974 Aerial Photo, Southern Portion

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1980 (Figures B-7a and B-7b)

Development in the northern portion of the source control area has not changed significantly from the 1974 photograph (Figure B-7a). The log storage yard north of the Seaboard Lumber property (9) has been replaced by a container-storage facility, Puget Sound Tug & Barge (5g) (Kennedy/Jenks 1991b).

All of the buildings on the Terminal 107 property (10) have been demolished and removed in this 1980 photograph (Figure B-7b). A park and wildlife habitat area has been established on the northern portion of Terminal 107, now called the Terminal 107 Park (10a). The southern portion has been leased to Alaska Marine Lines and is still being used as a truck trailer storage yard today (10b) (SoundEarth 2011a). The buildings currently occupied by Evergreen Building Products (23) and Heath Landscape Services (24) are now visible. Trees have grown on the Washington Federal Savings & Loan property (28), which was undergoing fill operations in the 1974 photograph.

1980 Figure Key

1. Bethlehem Steel
2. BNSF Railroad Right-of-Way
3. General Construction
5. Port of Seattle Terminal 105
    a. Liquid Disposal Corporation, Duroboat Manufacturing
    b. Riverside Marina
    d. Pioneer Marina
    g. Puget Sound Tug & Barge
7. Bird Johnson
9. Former Seaboard Lumber
10. Port of Seattle Terminal 107 (includes Kellogg Island)
    a. Terminal 107 Park
    b. Alaska Marine Lines or other tractor-truck storage
11. Manganese Products Manufacturing/Alaska Freight Building
12. Former Fraser Properties
14. Former Concrete Restoration
16. D&K Auto and Truck Salvage/Aable Auto
17. Seafirst Bank/Bank of America
18. New Finishes/Pacifica
19. Continental Van Lines
21. Former Central Painting
22. Fog Tite
23. Evergreen Building Products
24. Heath Landscape Services
25. West Seattle Estates
27. Puget Park and the McFarland Property
28. Washington Federal Savings & Loan Property

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Figure B–7a. RM 0.0 to 1.0 West (Spokane Street to Kellogg Island): 1980 Aerial Photo, Northern Portion

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Figure B–7b. RM 0.0 to 1.0 West (Spokane Street to Kellogg Island): 1980 Aerial Photo, Southern Portion

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1990 (Figures B-8a and B-8b)

Seattle Steel bought the property directly south of Spokane Street from Bethlehem Steel (1) in 1985, but development remains unchanged in this 1990 photograph (Figure B-8a). However, several buildings on the Terminal 105 property (5) and Seaboard Lumber property (9) have been demolished between 1980 and 1990, including the Alaska Freight Building (Kennedy/Jenks 1991b). The boat docks and marina are gone in this 1990 photograph. Development of the Terminal 105 Park is visible (5a). The former Seaboard Lumber property is used for container storage.

The building that currently houses Airclean Technologies (20) (upland property west of the north end of Terminal 107) is present in this 1990 photograph (Figure B-8b). Other development in the southern portion of the source control area has not significantly changed from the 1980 photograph.

1990 Figure Key

1. Seattle Steel Fasteners/Duwamish Harbor Facilities
2. BNSF Railroad Right-of-Way
3. Fletcher General Construction
5. Port of Seattle Terminal 105
    a. Terminal 105 Park
    g. Crowley Marine
7. Bird Johnson
9. PACCAR/Northwest Container Services
10. Port of Seattle Terminal 107 (includes Kellogg Island)
    a. Terminal 107 Park
    b. Alaska Marine Lines or other tractor-truck storage
12. Former Fraser Properties
14. Former Concrete Restoration
16. D&K Auto and Truck Salvage/Aable Auto
17. Seafirst Bank/Bank of America
18. New Finishes/Pacifica
19. Continental Van Lines
20. AirClean Technologies Building
21. Former Central Painting
22. Fog Tite
23. Evergreen Building Products
24. Heath Landscape Services
25. West Seattle Estates
27. Puget Park and the McFarland Property
28. Washington Federal Savings & Loan Property

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Figure B–8a. RM 0.0 to 1.0 West (Spokane Street to Kellogg Island): 1990 Aerial Photo, Northern Portion

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Figure B–8b. RM 0.0 to 1.0 West (Spokane Street to Kellogg Island): 1990 Aerial Photo, Southern Portion

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1993 (Figures B-9a through B-9d)

Figures B-9a through B-9d present oblique aerial photographs of the shoreline in 1993. The West Seattle Recycling Center building (13) is visible on Figure B-9a. The dredge material disposal area at Terminal 105 is visible between the Bird Johnson building (7) and the LDW (Figure B-9b). The Terminal 107 Park (10a) appears to be further developed from previous photographs (Figure B-9c). Alaska Marine Lines (10b) is visible on the southern portion of Terminal 107 (Figure B-9d). This unpaved area was and is currently used as a truck trailer storage area. Construction of South Seattle Community College (26) is complete (Figure B-9d).

1993 Figure Key

1. Seattle Steel Fasteners/Duwamish Harbor Facilities
2. BNSF Railroad Right-of-Way
3. Fletcher General Construction
5. Port of Seattle Terminal 105
    a. Terminal 105 Park
    g. Crowley Marine
7. Bird Johnson
9. PACCAR/Northwest Container Services
10. Port of Seattle Terminal 107 (includes Kellogg Island)
    a. Terminal 107 Park
    b. Alaska Marine Lines or other tractor-truck storage
12. Former Fraser Properties
13. West Seattle Recycling Center
16. D&K Auto and Truck Salvage/Aable Auto
17. Seafirst Bank/Bank of America
18. New Finishes/Pacifica
19. Continental Van Lines
20. AirClean Technologies Building
21. Former Central Painting
22. Fog Tite
23. Evergreen Building Products
24. Heath Landscape Services
25. West Seattle Estates
26. South Seattle Community College
27. Puget Park and the McFarland Property
28. Washington Federal Savings & Loan Property

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Figure B–9a. RM 0.0 to 1.0 West (Spokane Street to Kellogg Island): 1993 Shoreline Photo, Spokane Street to SW Dakota Street

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Figure B–9b. RM 0.0 to 1.0 West (Spokane Street to Kellogg Island): 1993 Shoreline Photo, SW Dakota Street to Terminal 107 Park

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Figure B–9c. RM 0.0 to 1.0 West (Spokane Street to Kellogg Island): 1993 Shoreline Photo, SW Idaho Street to Terminal 107

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Figure B–9d. RM 0.0 to 1.0 West (Spokane Street to Kellogg Island): 1993 Shoreline Photo, Terminal 107

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1995 (Figure B-10)

Northwest Aggregates (3b) is leasing the southern portion of Terminal 103 from Fletcher General Construction (3) for the storage of aggregate material that is offloaded from barges on the LDW (Figure B10). The habitat restoration project at the northern portion of Terminal 105 (5a) has been finished. This area has since been renamed the Terminal 105 Park and is being used as a public shoreline access site and aquatic habitat site (EcoChem 1997). Seaboard Lumber (9) sold their northwestern-most parcel to Evergreen Trails LLC in 1993, but this parcel has not been developed at the time of this 1995 photograph.

Activity in the southern portion of the source control area remains largely unchanged from previous years. The 1995 aerial photograph was not reproduced for this report.

1995 Figure Key

1. Riverside Mill
2. BNSF Railroad Right-of-Way
3. Fletcher General Construction
    b. Glacier Northwest/Northwest Aggregates/Cal Portland
5. Port of Seattle Terminal 105
    a. Terminal 105 Park
    g. Crowley Marine
7. Bird Johnson
8. Birmingham Steel
9. PACCAR/Northwest Container Services
10. Port of Seattle Terminal 107 (includes Kellogg Island)
    a. Terminal 107 Park
    b. Alaska Marine Lines or other tractor-truck storage
12. Former Fraser Properties
14. Former Concrete Restoration
16. D&K Auto and Truck Salvage/Aable Auto
17. Seafirst Bank/Bank of America
18. New Finishes/Pacifica
19. Continental Van Lines
20. AirClean Technologies Building
25. West Seattle Estates

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Figure B–10. RM 0.0 to 1.0 West (Spokane Street to Kellogg Island): 1995 Aerial Photo, Northern Portion

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2000 (Figure B-11)

Global Diving & Salvage (4) now occupies a portion of the Terminal 103 property. The warehouses that now are the sites of Pacific Rendering (6) and Ferguson Enterprises (7) have been built and the area has been paved, as shown in this 2000 photograph (Figure B-11). The Ferguson Enterprises warehouse has been built on top of the dredged materials disposal area. At the time of this photograph the restoration efforts at Herring's House Park (9b) have already begun. Evergreen Trails (9a) has paved its parcel and is using it as a bus storage yard. The upland area is undergoing further development. The Heathco and Penthouse Drapery (15) building has been built west of the Pacific Rendering warehouse across West Marginal Way SW, as shown in this 2000 photograph. In addition, Cooper Elementary School is now present (in the southwest corner of the photograph).

Activity in the southern portion of the source control area remains largely unchanged from previous years. The 2000 aerial photograph was not reproduced for this report.

2000 Figure Key

1. Riverside Mill
2. BNSF Railroad Right-of-Way
3. Port of Seattle Terminal 103
    a. General Construction
    b. Glacier Northwest/Northwest Aggregates/Cal Portland
4. Global Diving & Salvage
5. Port of Seattle Terminal 105
    a. Terminal 105 Park
6. Pacific Rendering
7. Ferguson Enterprises
8. Birmingham Steel
9. Former Seaboard Lumber
    a. Evergreen Trails
    b. Herring's House Park
10. Port of Seattle Terminal 107 (includes Kellogg Island)
    a. Terminal 107 Park
12. Former Fraser Properties
14. Former Concrete Restoration
15. Heathco/Penthouse Drapery
16. D&K Auto and Truck Salvage/Aable Auto
17. Seafirst Bank/Bank of America
18. New Finishes/Pacifica
19. Continental Van Lines
20. AirClean Technologies Building
21. Former Central Painting
22. Fog Tite
25. West Seattle Estates

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Figure B–11. RM 0.0 to 1.0 West (Spokane Street to Kellogg Island): 2000 Aerial Photo, Northern Portion

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2001 (Figures B-12a through B-12e)

Figures B-12a through B-12e present oblique aerial photographs of the shoreline in 2001. The construction of the 4101 West Marginal Way SW Business Park (16) has begun, across West Marginal Way from Ferguson Enterprises (7) (Figure B-12b). Birmingham Steel is now operating in the southern portion of the former Terminal 105 property (8) (Figures B-12b and B-12c).

2001 Figure Key

1. Riverside Mill
2. BNSF Railroad Right-of-Way
3. Port of Seattle Terminal 103
    a. General Construction
    b. Glacier Northwest/Northwest Aggregates/Cal Portland
4. Global Diving & Salvage
5. Port of Seattle Terminal 105
    a. Terminal 105 Park
6. Pacific Rendering
7. Ferguson Enterprises
8. Birmingham Steel
9. Former Seaboard Lumber
    a. Evergreen Trails
    b. Herring's House Park
10. Port of Seattle Terminal 107 (includes Kellogg Island)
    a. Terminal 107 Park
    b. Alaska Marine Lines or other tractor-truck storage
12. Former Fraser Properties
13. West Seattle Recycling Center
14. Former Concrete Restoration
15. Heathco/Penthouse Drapery
16. D&K Auto and Truck Salvage/Aable Auto
17. Seattle Parks & Recreation Westbridge Maintenance Facility
18. New Finishes/Pacifica
19. Continental Van Lines
20. AirClean Technologies Building
21. Former Central Painting
22. Fog Tite
23. Evergreen Building Products
24. Heath Landscape Services
25. West Seattle Estates
27. Puget Park and the McFarland Property
28. Washington Federal Savings & Loan Property

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Figure B–12a. RM 0.0 to 1.0 West (Spokane Street to Kellogg Island): 2001 Shoreline Photo, Spokane Street to Terminal 103

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Figure B–12b. RM 0.0 to 1.0 West (Spokane Street to Kellogg Island): 2001 Shoreline Photo, Terminal 103 to SW Idaho Street

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Figure B–12c. RM 0.0 to 1.0 West (Spokane Street to Kellogg Island): 2001 Shoreline Photo, SW Idaho Street to Herring's House Park

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Figure B–12d. RM 0.0 to 1.0 West (Spokane Street to Kellogg Island): 2001 Shoreline Photo, Herring's House Park to Terminal 107

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Figure B–12e. RM 0.0 to 1.0 West (Spokane Street to Kellogg Island): 2001 Shoreline Photo, Terminal 107

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2004 (Figures B-13a and B-13b)

The 4101 Southwest Business Park office/warehouse building (16) is visible just to the north of the Westbridge Building (17) (Figure B-13a). Other activities in the source control area remain largely unchanged from previous years.

2004 Figure Key

1. Riverside Mill
2. BNSF Railroad Right-of-Way
3. Port of Seattle Terminal 103
    a. General Construction
    b. Glacier Northwest/Northwest Aggregates/Cal Portland
4. Global Diving & Salvage
5. Port of Seattle Terminal 105
    a. Terminal 105 Park
6. Pacific Rendering
7. Ferguson Enterprises
8. General Recycling of Washington
9. Former Seaboard Lumber
    a. Evergreen Trails
    b. Herring's House Park
10. Port of Seattle Terminal 107 (includes Kellogg Island)
    a. Terminal 107 Park
    b. Alaska Marine Lines or other tractor-truck storage
12. Former Fraser Properties
14. Former Concrete Restoration
15. Heathco/Penthouse Drapery
16. 4101 West Marginal Way Business Park
17. Seattle Parks & Recreation Westbridge Maintenance Facility
18. New Finishes/Pacifica
19. Continental Van Lines
20. AirClean Technologies Building
21. Former Central Painting
22. Fog Tite
23. Evergreen Building Products
24. Heath Landscape Services
25. West Seattle Estates
26. South Seattle Community College
27. Puget Park and the McFarland Property
28. Washington Federal Savings & Loan Property

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Figure B–13a. RM 0.0 to 1.0 West (Spokane Street to Kellogg Island): 2004 Aerial Photo, Northern Portion

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Figure B–13b. RM 0.0 to 1.0 West (Spokane Street to Kellogg Island): 2004 Aerial Photo, Southern Portion

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2006 (Figures B-14a through B-14e)

Bob's Boats and United Motor Freight at Riverside Mill (1) occupy the stretch of shoreline south of the West Seattle Bridge and north of the BNSF Railroad right-of-way (Figure B-14a).

Northwest Aggregates (3b) and General Construction (3a) are located on the eastern parcel of Terminal 103, south of the BNSF Railroad right-of-way. Global Diving & Salvage (4) is located on the western parcel of Terminal 103 adjacent to West Marginal Way SW.

General Recycling of Washington (8) is located south of Ferguson Enterprises on the former Terminal 105 property.

West Seattle Recycling (13) is on the triangular-shaped parcel on 16th Avenue SW. Tryg Winquist Construction Co. and several abandoned houses are located on the strip of property to the east of West Seattle Recycling Center between 16th Avenue SW and West Marginal Way SW.

To the west of this property located on 16th Avenue SW are several businesses located in portable and semi-permanent buildings. These are, from north to south, Active Environmental, Cemrock Jolly Miller, and Midnight Motorsport.

Raynproof Roofing and the Heathco/Penthouse Drapery facility (15) are located on 16th Avenue SW to the northeast of the 4101 West Marginal Way SW Business Park (16). The 4101West Marginal Way SW Business Park is currently occupied by Wheelchair Plus, Metal Shorts, and Aquatic Enterprise, Inc.

The Seattle Parks and Recreation Westbridge Facility (17) borders the west side of West Marginal Way SW, south of the 4101 West Marginal Way SW Business Park. The building just south of the Westbridge Building includes New Finishes/Pacifica (18). Both buildings are directly across the street from General Recycling of Washington.

Evergreen Trails (9a) is located on the northern portion of the former Seaboard Lumber property (9) and northwest of Herring's House Park (9b), which borders the shoreline of the LDW.

Continental Van Lines (19) borders West Marginal Way SW across the street from Evergreen Trails and General Recycling of Washington.

Upland of Terminal 107 (10) is Fog Tite Meter and Seal (22), Evergreen Building Products (23), and Heath Landscape (24).

2006 Figure Key

1. Riverside Mill
2. BNSF Railroad Right-of-Way
3. Port of Seattle Terminal 103
    a. General Construction
    b. Glacier Northwest/Northwest Aggregates/Cal Portland
4. Global Diving & Salvage
5. Port of Seattle Terminal 105
    a. Terminal 105 Park
6. Pacific Rendering
7. Ferguson Enterprises
8. General Recycling of Washington
9. Former Seaboard Lumber
    a. Evergreen Trails
    b. Herring's House Park
10. Port of Seattle Terminal 107 (includes Kellogg Island)
    a. Terminal 107 Park
    b. Alaska Marine Lines or other tractor-truck storage
12. Former Fraser Properties
13. West Seattle Recycling Center
14. Former Concrete Restoration
15. Heathco/Penthouse Drapery
16. 4101 West Marginal Way Business Park
17. Seattle Parks & Recreation Westbridge Maintenance Facility
18. New Finishes/Pacifica
19. Continental Van Lines
20. AirClean Technologies Building
21. Former Central Painting
22. Fog Tite
23. Evergreen Building Products
24. Heath Landscape Services
25. West Seattle Estates
27. Puget Park and the McFarland Property
28. Washington Federal Savings & Loan Property

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Figure B–14a. RM 0.0 to 1.0 West (Spokane Street to Kellogg Island): 2006 Shoreline Photo, Spokane Street to SW Dakota Street

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Figure B–14b. RM 0.0 to 1.0 West (Spokane Street to Kellogg Island): 2006 Shoreline Photo, Terminal 103 to SW Idaho Street

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Figure B–14c. RM 0.0 to 1.0 West (Spokane Street to Kellogg Island): 2006 Shoreline Photo, SW Idaho Street to Herring's House Park

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Figure B–14d. RM 0.0 to 1.0 West (Spokane Street to Kellogg Island): 2006 Shoreline Photo, Herring's House Park to Terminal 107

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Figure B–14e. RM 0.0 to 1.0 West (Spokane Street to Kellogg Island): 2006 Shoreline Photo, Terminal 107

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Appendix C
Duwamish West CSO Basin Maps and Facilities

Appendix C–1
Duwamish West CSO Drainage Maps

Notes:
Facility locations are from the Ecology GIS Shape File downloaded from the Facility/Site Database on 2010-Nov-08. SAIC did not perform an independent review of these data; facility locations are provided in the Ecology GIS Shape File were generally assumed to be accurate. Locations of facilities within the Riverside Drive source control area were adjusted based on information obtained from the King County Parcel Viewer website and a reconnaissance survey performed by SAIC in July 2011.

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Appendix C. Spokane Street to Kellogg Island Source Control Area and Duwamish West CSO

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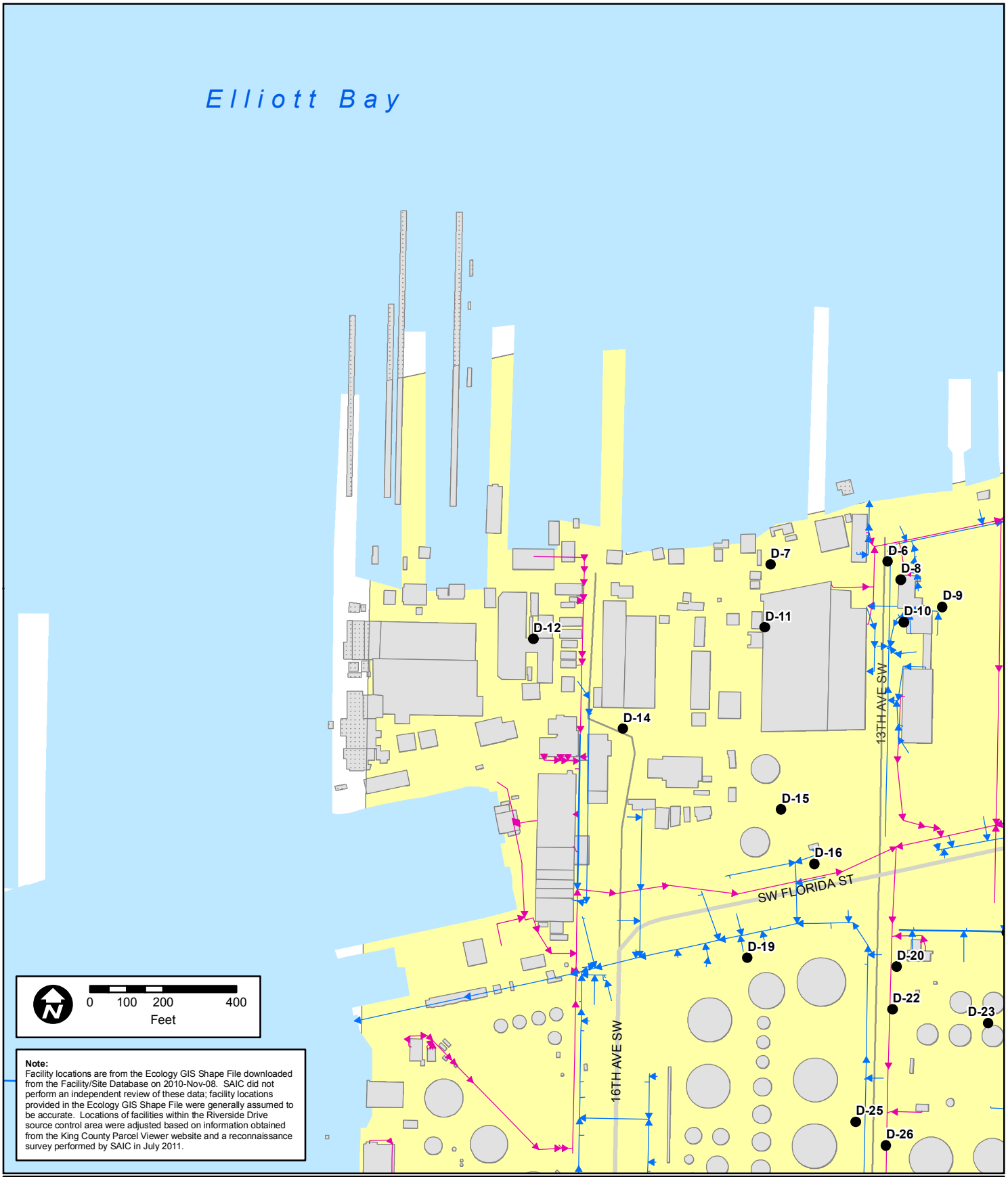
Coordinate System:
NAD 1983 StatePlane Washington North FIPS 4601 Feet
Prepared By: apw/mlf
File: Appendix_C_Spokane St to Kellogg Island_DuwamishCSOMapIndex.mxd
Illustrative purposes only.



Note:
Facility locations are from the Ecology GIS Shape File downloaded from the Facility/Site Database on 2010-Nov-08. SAIC did not perform an independent review of these data; facility locations provided in the Ecology GIS Shape File were generally assumed to be accurate. Locations of facilities within the Riverside Drive source control area were adjusted based on information obtained from the King County Parcel Viewer website and a reconnaissance survey performed by SAIC in July 2011.

Duwamish West CSO Drainage Features - B1

DEPARTMENT OF ECOLOGY
State of Washington

Outfall Classification
- Channel/Creek/Ditch
- Pipe, Unknown
- CSO
- CSO/SD
- Private SD
- Public SD
- Seep

- Facility with Map ID

Utility Lines
- Storm drain
- Sanitary sewer
- Combined
- King County

- Ditch
- Stream
- Spokane Street to Kellogg Island Source Control Area
- Building within Basin
- Building Outside Basin

Basins
- Duwamish West CSO
- Duwamish West CSO/ SW Dakota St SD
- SW Dakota St SD
- Duwamish West CSO/ SW Idaho St SD
- SW Idaho St SD

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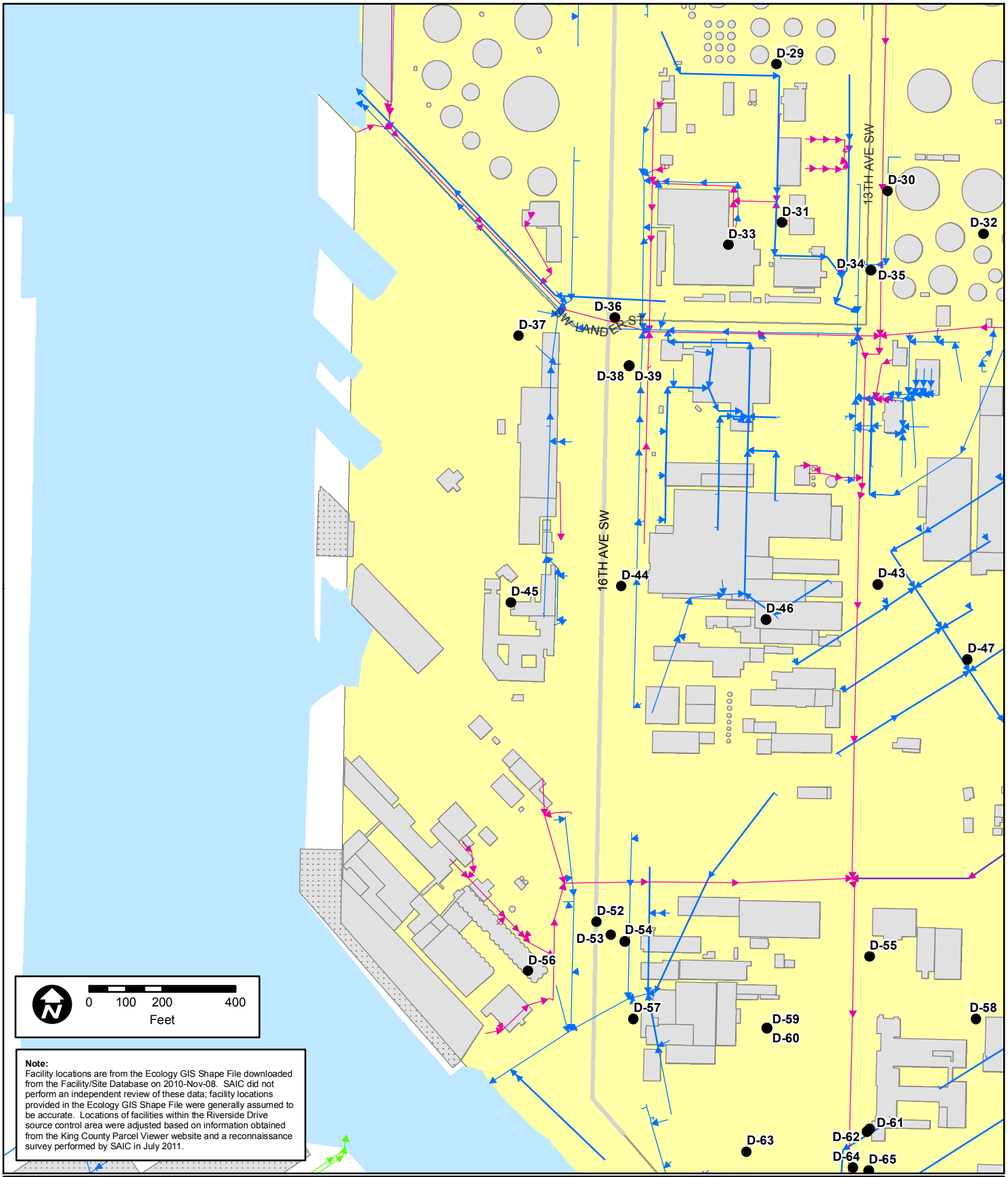
Coordinate System:
NAD 1983 StatePlane Washington North FIPS 4601 Feet
Prepared By: mlf
File: figure-x_Facilities-Map-letter.mxd
Illustrative purposes only.



Note:
Facility locations are from the Ecology GIS Shape File downloaded from the Facility/Site Database on 2010-Nov-08. SAIC did not perform an independent review of these data; facility locations provided in the Ecology GIS Shape File were generally assumed to be accurate. Locations of facilities within the Riverside Drive source control area were adjusted based on information obtained from the King County Parcel Viewer website and a reconnaissance survey performed by SAIC in July 2011.

Duwamish West CSO Drainage Features - B2

DEPARTMENT OF ECOLOGY
State of Washington

Outfall Classification
- Channel/Creek/Ditch
- Pipe, Unknown
- CSO
- CSO/SD
- Private SD
- Public SD
- Seep

- Facility with Map ID

Utility Lines
- Storm drain
- Sanitary sewer
- Combined
- King County

- Ditch
- Stream
- Spokane Street to Kellogg Island Source Control Area
- Building within Basin
- Building Outside Basin

Basins
- Duwamish West CSO
- Duwamish West CSO/ SW Dakota St SD
- SW Dakota St SD
- Duwamish West CSO/ SW Idaho St SD
- SW Idaho St SD

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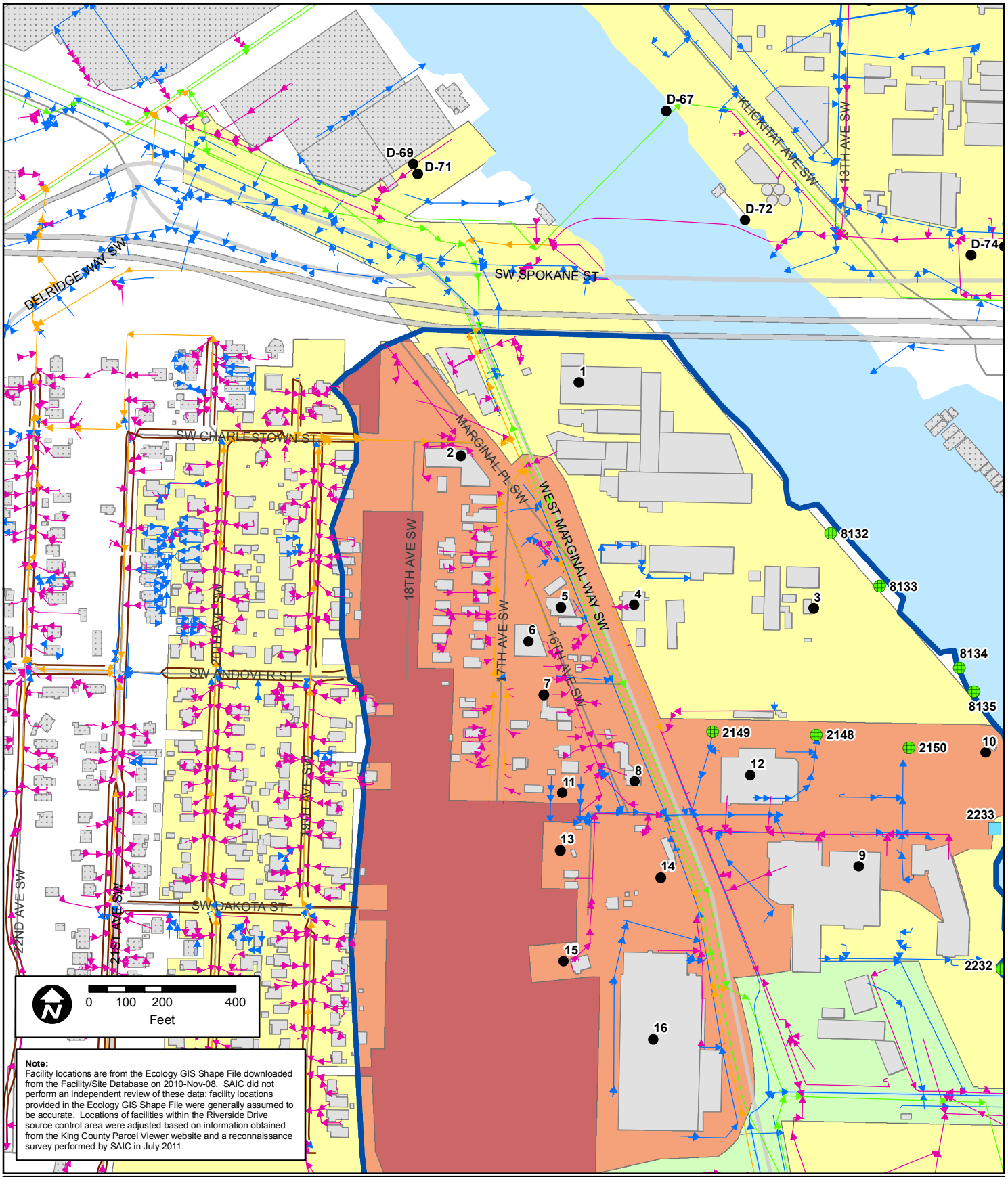
Coordinate System:
NAD 1983 StatePlane Washington
North FIPS 4601 Feet
Prepared By: mlf
File: figure-x_Facilities-Map-letter.mxd
Illustrative purposes only.



Duwamish West CSO Drainage Features - B3

DEPARTMENT OF ECOLOGY
State of Washington

Outfall Classification
- Channel/Creek/Ditch
- Pipe, Unknown
- CSO
- CSO/SD
- Private SD
- Public SD
- Seep

- Facility with Map ID

Utility Lines
- Storm drain
- Sanitary sewer
- Combined
- King County

- Ditch
- Stream
- Spokane Street to Kellogg Island Source Control Area
- Building within Basin
- Building Outside Basin

Basins
- Duwamish West CSO
- Duwamish West CSO/ SW Dakota St SD
- SW Dakota St SD
- Duwamish West CSO/ SW Idaho St SD
- SW Idaho St SD

SAIC
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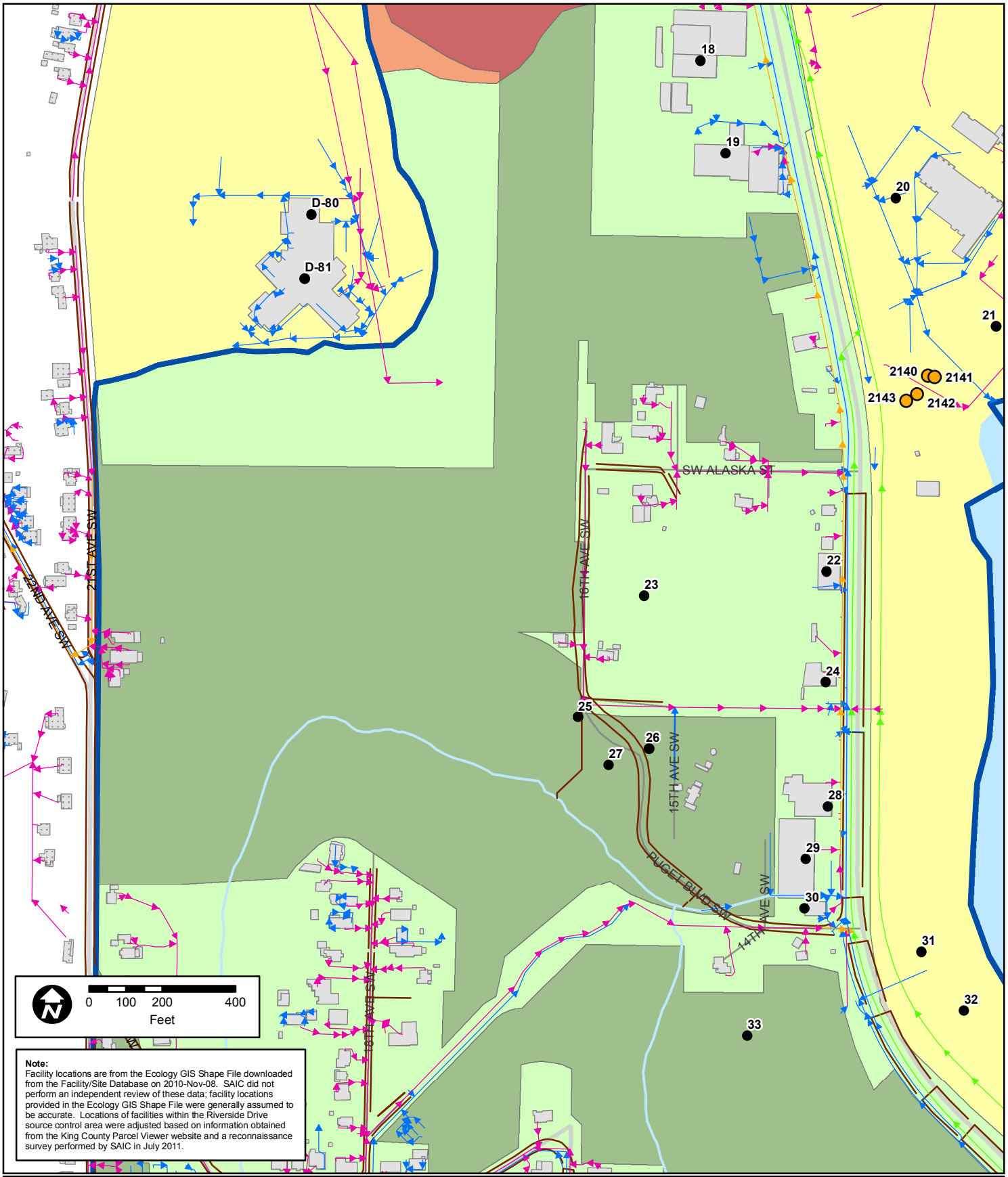
Coordinate System:
NAD 1983 StatePlane Washington
North FIPS 4601 Feet
Prepared By: mlf
File: figure-x_Facilities-Map-letter.mxd
Illustrative purposes only.



Note:
Facility locations are from the Ecology GIS Shape File downloaded from the Facility/Site Database on 2010-Nov-08. SAIC did not perform an independent review of these data; facility locations provided in the Ecology GIS Shape File were generally assumed to be accurate. Locations of facilities within the Riverside Drive source control area were adjusted based on information obtained from the King County Parcel Viewer website and a reconnaissance survey performed by SAIC in July 2011.

Duwamish West CSO Drainage Features - B4

DEPARTMENT OF ECOLOGY
State of Washington

Outfall Classification
- Channel/Creek/Ditch
- Pipe, Unknown
- CSO
- CSO/SD
- Private SD
- Public SD
- Seep

- Facility with Map ID

Utility Lines
- Storm drain
- Sanitary sewer
- Combined
- King County

- Ditch
- Stream
- Spokane Street to Kellogg Island Source Control Area
- Building within Basin
- Building Outside Basin

Basins
- Duwamish West CSO
- Duwamish West CSO/ SW Dakota St SD
- SW Dakota St SD
- Duwamish West CSO/ SW Idaho St SD
- SW Idaho St SD

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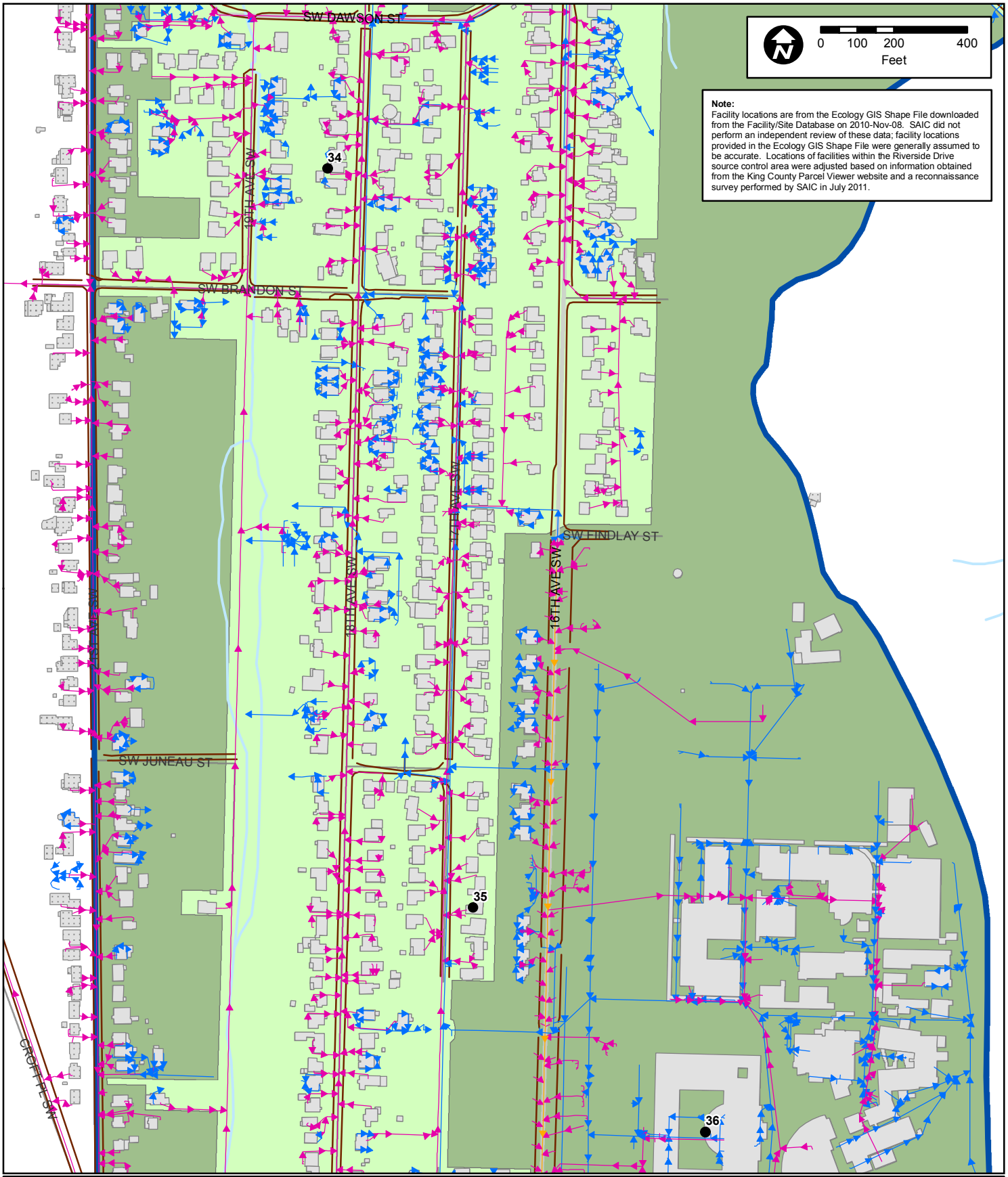
Coordinate System:
NAD 1983 StatePlane Washington
North FIPS 4601 Feet
Prepared By: mlf
File: figure-x_Facilities-Map-letter.mxd
Illustrative purposes only.



Duwamish West CSO Drainage Features - B5

DEPARTMENT OF ECOLOGY
State of Washington

Outfall Classification
- Channel/Creek/Ditch
- Pipe, Unknown
- CSO
- CSO/SD Private SD
- Public SD
- Seep

- Facility with Map ID

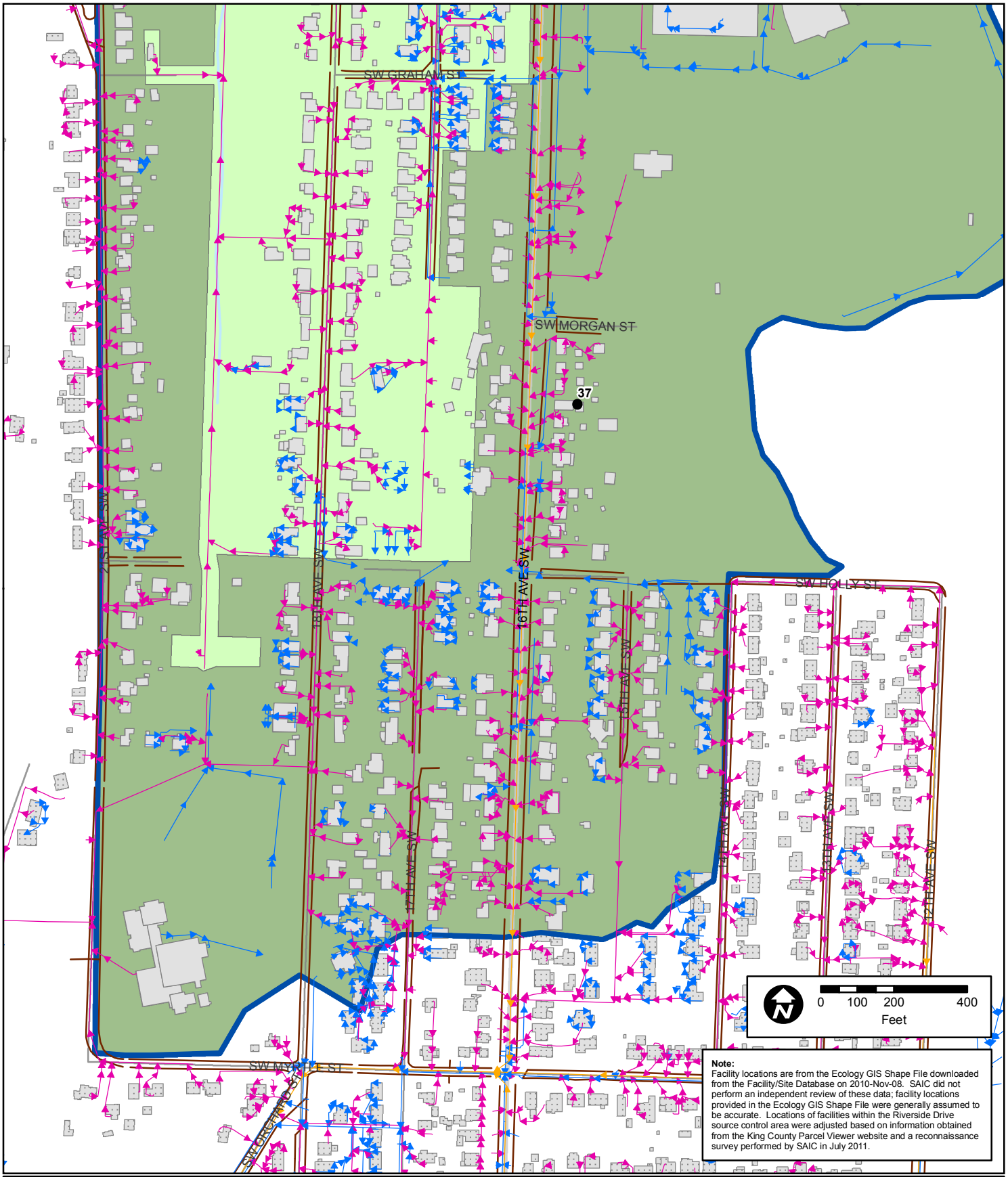
Utility Lines
- Storm drain
- Sanitary sewer
- Combined
- King County

- Ditch
- Stream
- Spokane Street to Kellogg Island Source Control Area
- Building within Basin
- Building Outside Basin

Basins
- Duwamish West CSO
- Duwamish West CSO/ SW Dakota St SD
- SW Dakota St SD
- Duwamish West CSO/ SW Idaho St SD
- SW Idaho St SD

SAIC® From Science to Solutions

Coordinate System:
NAD 1983 StatePlane Washington
North FIPS 4601 Feet
Prepared By: mlf
File: figure-x_Facilities-Map-letter.mxd
Illustrative purposes only.



Note:
Facility locations are from the Ecology GIS Shape File downloaded from the Facility/Site Database on 2010-Nov-08. SAIC did not perform an independent review of these data; facility locations provided in the Ecology GIS Shape File were generally assumed to be accurate. Locations of facilities within the Riverside Drive source control area were adjusted based on information obtained from the King County Parcel Viewer website and a reconnaissance survey performed by SAIC in July 2011.

Duwamish West CSO Drainage Features - B6

DEPARTMENT OF ECOLOGY
State of Washington

Outfall Classification
- Channel/Creek/Ditch
- Pipe, Unknown
- CSO
- CSO/SD
- Private SD
- Public SD
- Seep

- Facility with Map ID

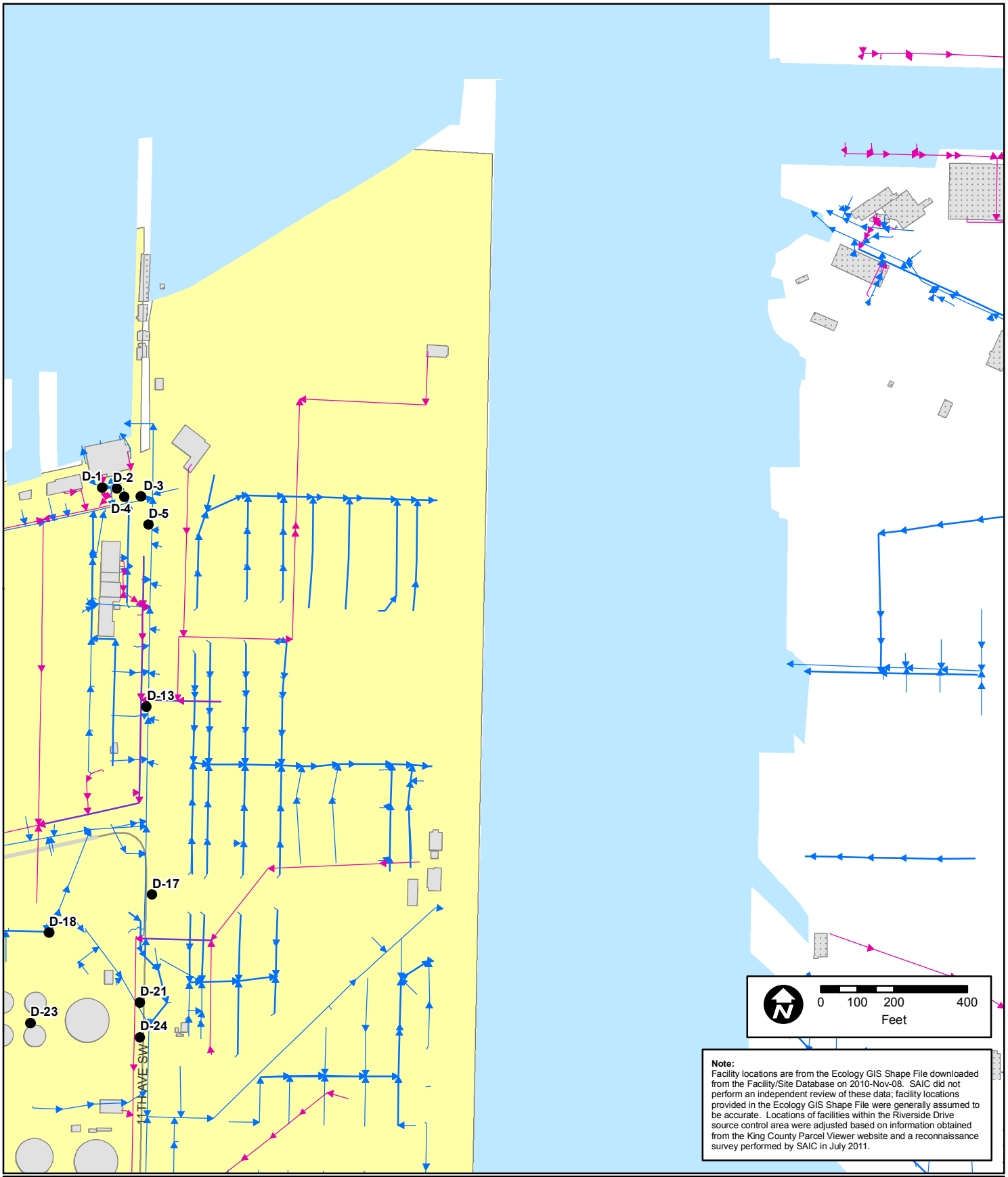
Utility Lines
- Storm drain
- Sanitary sewer
- Combined
- King County

- Ditch
- Stream
- Spokane Street to Kellogg Island Source Control Area
- Building within Basin
- Building Outside Basin

Basins
- Duwamish West CSO
- Duwamish West CSO/ SW Dakota St SD
- SW Dakota St SD
- Duwamish West CSO/ SW Idaho St SD
- SW Idaho St SD

SAIC® From Science to Solutions

Coordinate System:
NAD 1983 StatePlane Washington North FIPS 4601 Feet
Prepared By: mlf
File: figure-x_Facilities-Map-letter.mxd
Illustrative purposes only.



Duwamish West CSO Drainage Features - C1

DEPARTMENT OF ECOLOGY
State of Washington

Outfall Classification
- Channel/Creek/Ditch
- Pipe, Unknown
- CSO
- CSO/SD
- Private SD
- Public SD
- Seep

- Facility with Map ID

Utility Lines
- Storm drain
- Sanitary sewer
- Combined
- King County

- Ditch
- Stream
- Spokane Street to Kellogg Island Source Control Area
- Building within Basin
- Building Outside Basin

Basins
- Duwamish West CSO
- Duwamish West CSO/ SW Dakota St SD
- SW Dakota St SD
- Duwamish West CSO/ SW Idaho St SD
- SW Idaho St SD

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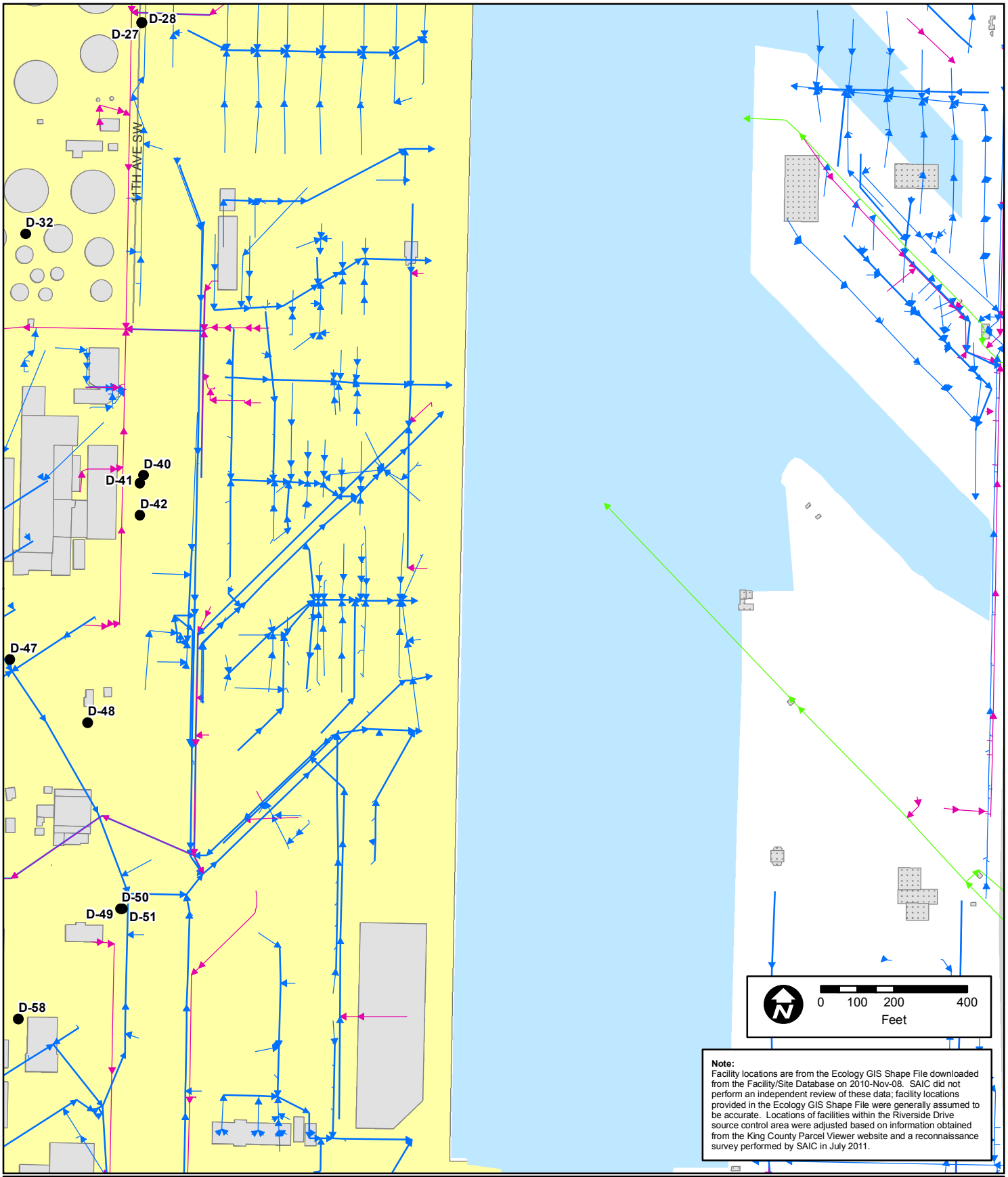
From Science to Solutions

Coordinate System:
NAD 1983 StatePlane Washington
North FIPS 4601 Feet
Prepared By: mlf
File: figure-x_Facilities-Map-letter.mxd
Illustrative purposes only.



Duwamish West CSO Drainage Features - C2

DEPARTMENT OF ECOLOGY
State of Washington

Outfall Classification
- Channel/Creek/Ditch
- Pipe, Unknown
- CSO
- CSO/SD Private SD
- Public SD
- Seep

- Facility with Map ID

Utility Lines
- Storm drain
- Sanitary sewer
- Combined
- King County

- Ditch
- Stream
- Spokane Street to Kellogg Island Source Control Area
- Building within Basin
- Building Outside Basin

Basins
- Duwamish West CSO
- Duwamish West CSO/ SW Dakota St SD
- SW Dakota St SD
- Duwamish West CSO/ SW Idaho St SD
- SW Idaho St SD

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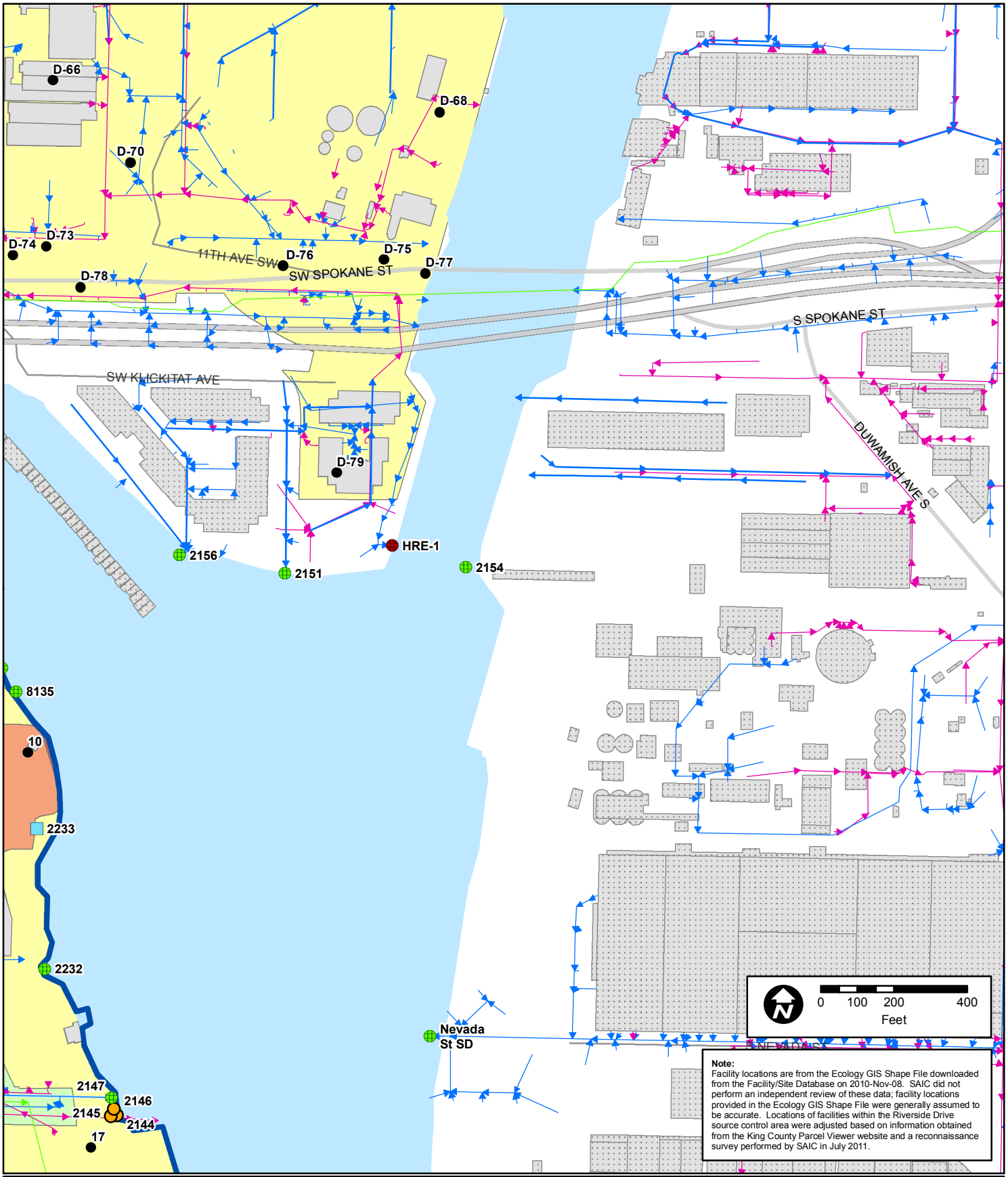
Coordinate System:
NAD 1983 StatePlane Washington
North FIPS 4601 Feet
Prepared By: mlf
File: figure-x_Facilities-Map-letter.mxd
Illustrative purposes only.



Duwamish West CSO Drainage Features - C3

DEPARTMENT OF ECOLOGY
State of Washington

Outfall Classification
- Channel/Creek/Ditch
- Pipe, Unknown
- CSO
- CSO/SD
- Private SD
- Public SD
- Seep

- Facility with Map ID

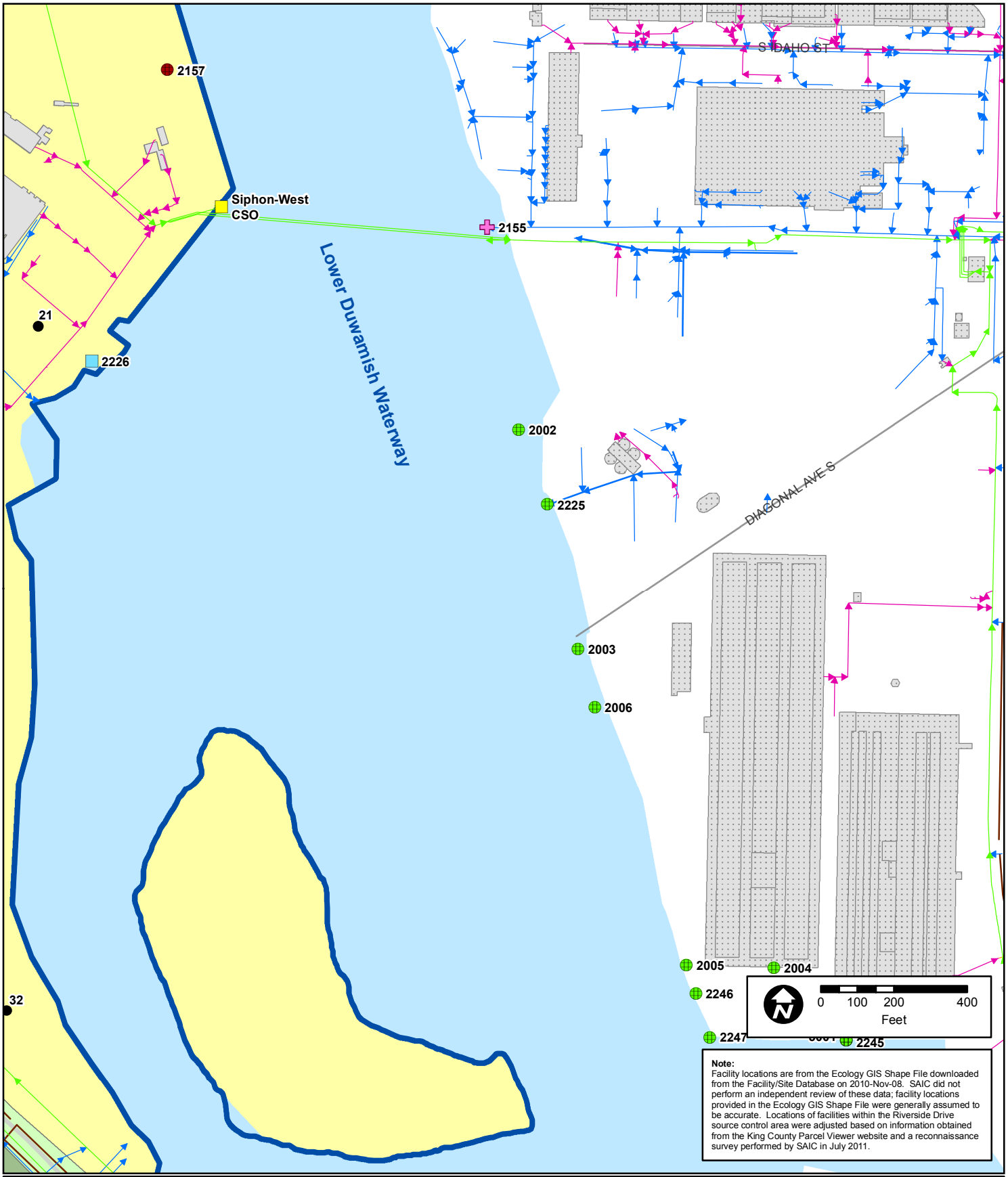
Utility Lines
- Storm drain
- Sanitary sewer
- Combined
- King County

- Ditch
- Stream
- Spokane Street to Kellogg Island Source Control Area
- Building within Basin
- Building Outside Basin

Basins
- Duwamish West CSO
- Duwamish West CSO/ SW Dakota St SD
- SW Dakota St SD
- Duwamish West CSO/ SW Idaho St SD
- SW Idaho St SD

SAIC
From Science to Solutions

Coordinate System:
NAD 1983 StatePlane Washington
North FIPS 4601 Feet
Prepared By: mlf
File: figure-x_Facilities-Map-letter.mxd
Illustrative purposes only.



Duwamish West CSO Drainage Features - C4

DEPARTMENT OF ECOLOGY
State of Washington

Outfall Classification
- Channel/Creek/Ditch
- Pipe, Unknown
- CSO
- CSO/SD Private SD
- Public SD
- Seep

- Facility with Map ID

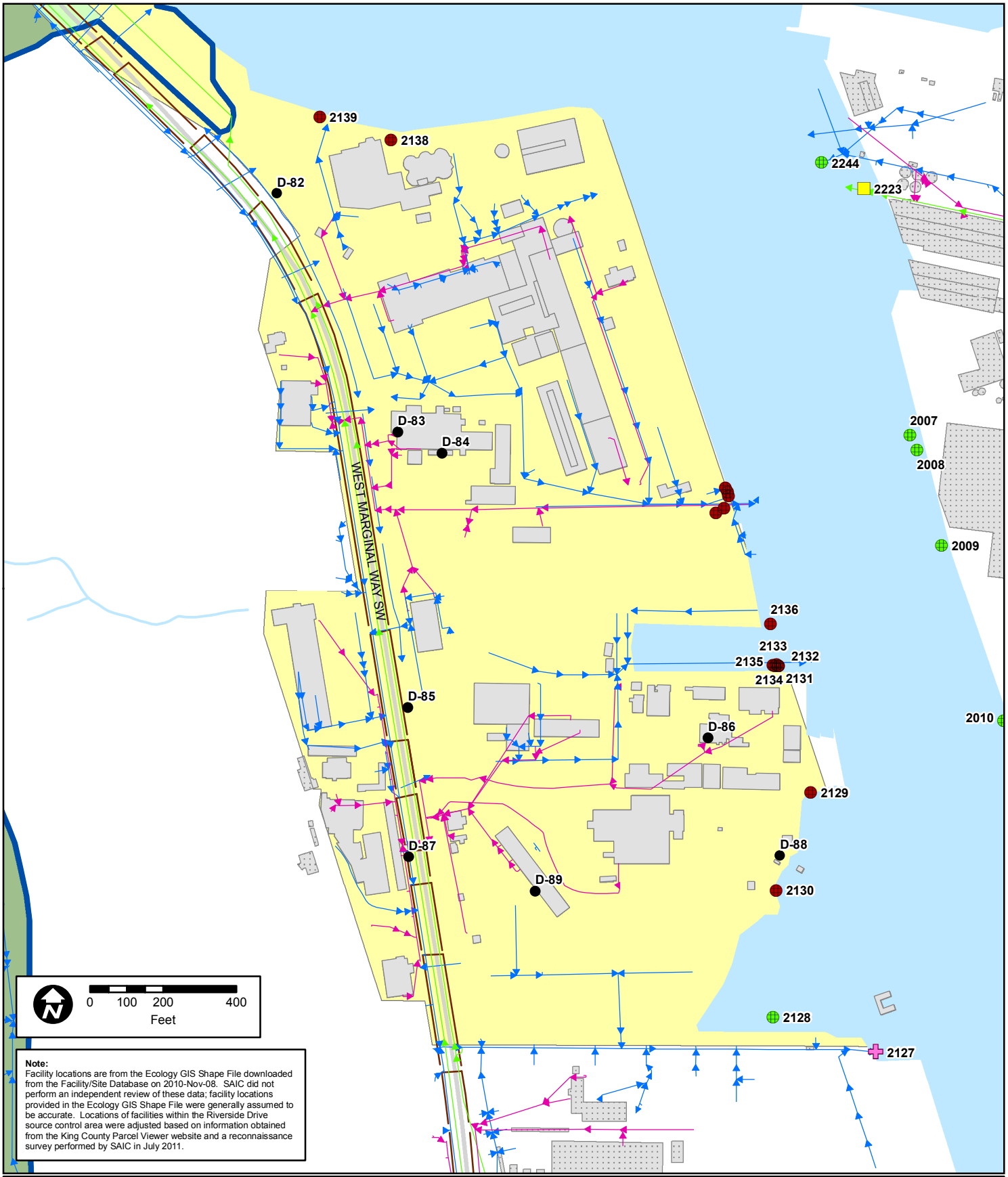
Utility Lines
- Storm drain
- Sanitary sewer
- Combined
- King County

- Ditch
- Stream
- Spokane Street to Kellogg Island Source Control Area
- Building within Basin
- Building Outside Basin

Basins
- Duwamish West CSO
- Duwamish West CSO/ SW Dakota St SD
- SW Dakota St SD
- Duwamish West CSO/ SW Idaho St SD
- SW Idaho St SD

SAIC® From Science to Solutions

Coordinate System:
NAD 1983 StatePlane Washington North FIPS 4601 Feet
Prepared By: mlf
File: figure-x_Facilities-Map-letter.mxd
Illustrative purposes only.



Note:
Facility locations are from the Ecology GIS Shape File downloaded from the Facility/Site Database on 2010-Nov-08. SAIC did not perform an independent review of these data; facility locations provided in the Ecology GIS Shape File were generally assumed to be accurate. Locations of facilities within the Riverside Drive source control area were adjusted based on information obtained from the King County Parcel Viewer website and a reconnaissance survey performed by SAIC in July 2011.

Duwamish West CSO Drainage Features - C5

DEPARTMENT OF ECOLOGY
State of Washington

Outfall Classification
- Channel/Creek/Ditch
- Pipe, Unknown
- CSO
- CSO/SD Private SD
- Public SD
- Seep

- Facility with Map ID

Utility Lines
- Storm drain
- Sanitary sewer
- Combined
- King County

- Ditch
- Stream
- Spokane Street to Kellogg Island Source Control Area
- Building within Basin
- Building Outside Basin

Basins
- Duwamish West CSO
- Duwamish West CSO/ SW Dakota St SD
- SW Dakota St SD
- Duwamish West CSO/ SW Idaho St SD
- SW Idaho St SD

SAIC®
From Science to Solutions

Coordinate System:
NAD 1983 StatePlane Washington
North FIPS 4601 Feet
Prepared By: mlf
File: figure-x_Facilities-Map-letter.mxd
Illustrative purposes only.

Appendix C–2
Duwamish West CSO Basin Facilities

Table C-1
Facilities within the Duwamish West CSO Basin

Facility/ Site ID	Facility Name	Alternate Name(s)	Facility Address	Zip Code	Active EPA ID No.	Ecology CSCSL	NPDES Permit	KCIW Discharge Permit	LUST	UST	Ecology NFA	Map ID[1]
93395933	17th SW Drums	None	5934 17th Avenue SW	98106								35
15472775	4800 W Marginal	Terminal 107, Vacant UST 2482 Marginal Way SW	4800 West Marginal Way SW	98106								32
20843	Active Environmental Inc 16th Ave	None	4001 16th Avenue SW	98106								7
85392668	Aiem Industrial Inc	US Bank of Washington	1137 SW Hanford Street	98134					●	●		D-50
8547	Airclean Technologies Inc	None	4725 West Marginal Way SW	98106								22
88255195	Alaska Marine Lines 5615 W Marginal Way	Alaska Marine Lines Freight, Lynden Air Freight, Inc.	5615 West Marginal Way SW	98106	●				●	●		D-85
19450	Alaska Marine Lines Seattle Terminal	None	5502 & 5658 West Marginal Way SW	98106			●	●				D-83
3532383	Alaska Railroad Corp	None	1140 SW Massachusetts Street	98134	●							D-1
4488666	All State Industrial Marine	None	3417 13th Avenue SW	98134								D-63
11229	Aquatic Ent Inc	4101 West Marginal Way SW Business Park	4101 West Marginal Way SW, Ste A6	98106								14
2034	Asahipen America Inc	Asahipen America Inc. Seattle, Seattle Paint Plant	1128 SW Spokane Street	98134	●	●	●			●	●	D-73
1827143	BASF	None	2400 11th Avenue SW Terminal 18	98134								D-17
4091	BASF at United Motor Freight	Riverside Mill	3800 West Marginal Way SW, Bldg 3	98106	●							1
44375557	Bird Johnson Port	Boeing Company Terminal 105, Crowley Marine Services Inc T105, Ferguson Enterprises, General Recycling of Washington, Seattle Port Terminal 105, Terminal 105	4100 West Marginal Way SW	98106								9
81228316	Block 401 Leckenby Cohen Bldg	None	3436 16th Avenue SW	98134								D-57
8573843	Bob Leonard Elliot Bay	C-Port Marine	1011 SW Klickitat Way	98134								D-7
10931	Bobs Boats	Riverside Mill	3800 West Marginal Way SW, Bldg 4	98106	●							1
97821669	Boeing Company Terminal 105	Birmingham Steel Corporation, Crowley Marine Services Inc T105, Crowley Marine Services Inc Marginal Way, General Recycling of Washington, Seattle Port Terminal 105, Terminal 105	4260 West Marginal Way SW	98106								10
2024	BP West Coast Products	ARCO Products CO, ARCO Products CO Seattle Terminal, ARCO Tank Farm, Atlantic Richfield CO, BP Seattle Terminal, BP West Coast Products, Seattle Terminal	1652 SW Lander Street	98134	●	●	●		●	●		D-36
31119678	Brys Auto Wrecking	Bryans Volkswagon Auto Wrecking, Concrete Restoration, Inc.	4025 West Marginal Way SW	98106		●						8
NA	Burlington Northern Santa Fe Railroad Right-of-Way	BNSF RR ROW	None	98106								
2185	Central Painting	Expert Marble & Granite Inc	4749 West Marginal Way SW	98106	●	●						24
41953656	Chemithon Corp	West Transfer Co, Chemithon	5430 West Marginal Way SW	98106	●		●	●				D-84
11384881	Clean Sound Cooperative Harbor Island Sh	None	2406 13th Avenue SW	98134	●							D-20
NA	Cohesive Garage	4101 West Marginal Way SW Business Park	4101 West Marginal Way SW	98106								14
45768719	Combustion Systems & Fabrication	None	3207 11th Avenue SW	98134						●		D-76
9688	Concrete Restoration Inc	Brys Auto Wrecking, Bryans Volkswagon Auto Wrecking	4025 West Marginal Way SW	98106								8
10412	Continental Van Lines	None	4501 West Marginal Way SW	98106								19
33133593	Cooper Elementary School	Seattle Sch Dist Cooper Elementary	1901 SW Genesee Street	98106					●	●		D-80
2112	Crosby & Overton Inc, 13th SW	None	3406 13th Avenue SW	98134		●					●	D-62
22662567	Crowley Marine Services Inc	Columbia Marine Lines Seattle, Pacific Alaska Lines	1100 SW Massachusetts Street	98134	●							D-4
24172765	Crowley Marine Services Inc Marginal Way	Bird Johnson Port, Boeing Company Terminal 105, Crowley Marine Services Inc T105, Ferguson Enterprises, General Recycling of Washington, Seattle Port Terminal 105, Terminal 105	4154 West Marginal Way SW	98106								17
2164	Crowley Marine Services Pier 17	Crowley Maritime Corp, Puget Sound Tug & Barge, Puget Sound Tug & Barge Pier 17	1102 SW Massachusetts Street	98134	●	●	●			●	●	D-3
13586515	Crowley Marine Svc Inc Pier 15 1/2	None	1810 13th Avenue SW	98134								D-10
39342192	Dakota Street	AABLE Auto Wrecking, 4101 West Marginal Way SW Business Park	4101 West Marginal Way SW	98106							●	14

Table C-1
Facilities within the Duwamish West CSO Basin

Facility/ Site ID	Facility Name	Alternate Name(s)	Facility Address	Zip Code	Active EPA ID No.	Ecology CSCSL	NPDES Permit	KCIW Discharge Permit	LUST	UST	Ecology NFA	Map ID[1]
21179265	Duroboat Manufacturing Company	General Biodiesel, Pacific Rendering (shared property)	1140 SW Dakota Street	98106						●		12
1582	Duwamish Properties Shoreside Support HQ	None	910 SW Spokane Street	98134			●					D-68
2071	Duwamish Shipyard, Inc.	Alaska Marine Lines, Seattle Machine Works Inc Marginal Way	5658 West Marginal Way SW	98106	●	●	●		●	●		D-86
62678833	Ecolights Northwest	Shultz Distributing Hanforc	1141 SW Hanford Street	98134								D-49
1378425	Equilon Seattle Distribution Terminal	None	2555A 13th Avenue SW	98134	●							D-29
6697	Evergreen Building Products LLC	None	4835 West Marginal Way SW	98106								29
83317575	Evergreen Trails	Gray Line of Seattle, Northwest Container Services, Paccar Seaboard Lumber Property, Puget Sound Tug & Barge Company, Seattle City Seaboard Lumber former site	4500 West Marginal Way SW	98106	●		●			●		20
18675	Ferguson Enterprises Inc.	Bird Johnson Port, Boeing Company Terminal 105, Crowley Marine Services Inc T105, General Recycling of Washington, Seattle Port Terminal 105, Terminal 105	4100 West Marginal Way SW	98106								9
17733	Fisher Flower Mill	Seattle Bulk Shipping LLC	3233 16th Avenue SW	98134			●					D-52
13266447	Fisher Mills	Former Fisher Mills, Pendleton Flour Mills LLC, Pendleton Mills LLC (shared Building)	3235 16th Avenue SW	98134	●		●		●	●		D-56
1184778	Fog Tite Inc	Fog Tite Meter and Seal, Inc.	4819 West Marginal Way SW	98106			●	●				28
82726738	Foreign Trade Zone 5, Building 85	None	13th Avenue SW	98134						●		D-9
72321478	Fraser Inc	None	3801 West Marginal Place SW	98106								2
96957364	Frontier Foundations Inc	None	3221 13th Avenue SW	98134								D-55
6869	General Biodiesel Inc	Pacific Rendering (shared building)	4034 West Marginal Way SW	98106								12
8753555	General Construction	Former Mobil Oil, Seattle Division, Todd Pacific Shipyards, Todd Pacific Shipyards Corp (Shared Building)	1801 16th Avenue SW	98134								D-25
94648691	General Construction Co Seattle Site	Fletcher General Inc, General Construction Rock Products, HW Blackstock Co., Northwest Aggregates, Glacier Northwest, Terminal 103	3838 West Marginal Way SW	98106	●							3
18553	General Recycling of Washington	Bird Johnson Port, Birmingham Steel Corporation, Boeing Company Terminal 105, Crowley Marine Services Inc T105, Crowley Marine Services Inc Marginal Way, Seattle Port Terminal 105, Terminal 105	4260 West Marginal Way SW	98106			●					17
2035	General Transport Co 13th Ave SW	Golden Penn Oil Co, Vacant Property, Western Pacific Vacuum Service	2937 13th Avenue SW	98134	●	●				●		D-46
23881883	Glacier Northwest Inc	5900 W Marginal Way SW, Glacier Northwest Inc SEA, Glacier NW, Reichhold Chemical Lone Star	5900 West Marginal Way SW	98106	●	●		●				D-89
2302559	Glacier Northwest, Inc. Seattle	Fletcher General Inc, General Construction Co, General Construction Rock Products, Northwest Aggregates	3838 West Marginal Way SW	98124	●		●					3
89139472	Glacier NW Reichhold MTCA	None	5904-5906 West Marginal Way SW	98111	●							D-87
NA	Global Diving & Salvage	None	3840 West Marginal Way SW	98106								4
83315373	Global Diving	None	2763 13th Avenue SW	98134						●		D-34
75577212	Gray Line of Seattle Marginal Way	Evergreen Trails Inc, Northwest Container Services, Paccar Seaboard Lumber Property, Puget Sound Tug & Barge Company, Seattle City Seaboard Lumber former site	4500 West Marginal Way SW	98106								20
2021	Harbor Island	None	Harbor Island	98134								D-33
64974285	Harbor Island Business Ctr	None	3400 13th Avenue SW	98134								D-61
539878	Harbor Island Marchine Works Inc.HARBOR ISLA	None	3431 11th Avenue SW	98134			●					D-74
63542451	Harbor Island Service	None	3419 13th Avenue SW	98134						●		D-64
34525399	Harbor Marina Corporate Center	None	1001 SW Klickitat Way, Suite 101	98134					●	●		D-79

Table C-1
Facilities within the Duwamish West CSO Basin

Facility/ Site ID	Facility Name	Alternate Name(s)	Facility Address	Zip Code	Active EPA ID No.	Ecology CSCSL	NPDES Permit	KCIW Discharge Permit	LUST	UST	Ecology NFA	Map ID[1]
17035	Hardware Specialty Co	None	3419 11th Avenue SW	98134								D-66
16129	Heath Landscape Services Inc	None	4849 West Marginal Way SW	98106								30
12698	Heathco Intl Inc	Penthouse Drapery (shared building)	4033 16th Avenue SW, Ste B	98106								11
76453385	HW Blackstock Co	Bird Johnson Port, Birmingham Steel Corporation, Boeing Company Terminal 105, Crowley Marine Services Inc T105, Crowley Marine Services Inc Marginal Way, Ferguson Enterprises, General Recycling of Washington, Terminal 105	4000 West Marginal Way SW	98106								10
2033	Industrial Office Complex	None	3400 11th Avenue SW	98134		●						D-70
6681862	Island Tug & Barge Company	West Waterway Lumber	3546 West Marginal Way SW	98124			●					D-71
65161571	Jacob Stern Sons Inc	None	2900 11th Avenue SW	98134								D-27
88394523	Kinder Morgan Liquids Terminals LLC	GATX Harbor Island, GATX Harbor Island Terminal, GATX Terminals Corp Harbor Island, Harbor Island Plant, Kinder Morgan Inc, Kinder Morgan Tank Farm, Shell Oil Co, Shell Station Harbor Island Distr, Shell Tank Farm	2720 13th Avenue SW	98134	●	●			●	●		D-23
2132	Lafarge North America Inc Seattle	Holnam Inc. , Ideal Basic Industries, Lafargre, Lafarge Corp Seattle, Lafarge Corporation	5400 West Marginal Way SW	98106	●	●	●	●	●	●	●	D-82
2036	Lockheed Shipbldg Co Yard 1	Lockheed Shipbuilding, Lockheed Shipbuilding Company	2929 16th Avenue SW	98134		●			●	●		D-44
42166484	Lynden Air Freight Inc		5615 West Marginal Way SW	98106								D-85
30965651	Manning St Waste	None	11th Avenue SW & SW Manning Street	98134	●							D-72
66385168	Martin Surfacing	None	3420 13th Avenue SW	98134					●	●		D-35
5568964	Meltec Division of Young Corporation	Young Corp Meltec Div	3444 13th Avenue SW	98134	●		●					D-65
NA	Metal Shorts	4101 West Marginal Way SW Business Park	4101 West Marginal Way SW	98106								14
14736531	Mono Industrial Roofing	None	1112 SW Spokane Street	98134	●							D-78
9627	New Finishes Inc W Marginal Way	Pacifica Marine Inc. (shared property)	4235 West Marginal Way SW	98106								18
2026	Non Ferrous Metals Inc	None	2905 13th Avenue SW	98134	●	●				●		
7754458	Northwest Aggregates	Fletcher General Inc, General Construction Rock Products, General Construction Company, Glacier Northwest, HW Blackstock Co, Terminal 103	3838 West Marginal Way SW	98106			●		●	●		3
14216312	Northwest Enviroservice Inc Seattle	None	2773 11th Avenue SW	98134								D-24
2022	Olympic Pipe Line Co Harbor Island	Olympic Pipe Line	2444 13th Avenue SW	98134	●	●						D-22
14845	Olympic Tug and Barge	None	910 SW Spokane Street	98134								D-77
9581551	Ortega Property	None	5235 18th Avenue SW	98106		●						34
2023	Pacific Molasses Co PM AG Products SEA	None	3200 11th Avenue SW	98134		●				●		D-40
4613117	Pacific Rendering Co	None	2926 16th Avenue SW	98134			●			●		D-45
10287	Pacific Rendering Co Inc	Duroboat Manufacturing Company, Encore Oils, General Biodiesel	4034 West Marginal Way SW	98106				●				12
23704	Pacifica Marine Inc	New Finishes Inc. W Marginal Way (shared property)	4233 West Marginal Way SW	98106								18
24724	Penthouse Drapery 16th Ave	Heathco Intl Inc. (shared building)	4033 16th Avenue SW, Ste A	98106								11
5735798	Pioneer Construction Materials Co	None	910 SW Spokane Street	98134					●	●		D-75
69852439	Port of Seattle	None	SW Florida Street	98134						●		D-19
68272713	Port of Seattle 13th & Florida	None	13th Avenue SW & SW Florida Street	98134						●		D-16
2460195	Port of Seattle 2720 13th Ave	None	2720 13th Avenue SW	98134								D-30
2177	Port of Seattle N Terminal 115	Gene Summy Lumber, M & T Chemicals Inc., MRI, Port of Seattle Terminal 115, Proeler, Proler Recycling Inc Seattle, Schnitzer Steel Inc, Polar Supply Co Inc	6000 West Marginal Way SW	98106	●	●						D-88
9033844	Port of Seattle Pier 15 1/2	Replacement of Mooring Dolphins & Removal of Transfer Span	1124 SW Massachusetts Street	98134								D-2
26557446	Premier Pacific Seafoods	None	1011 SW Klickitat Way, Suite 100	98134								D-59

Table C-1
Facilities within the Duwamish West CSO Basin

Facility/ Site ID	Facility Name	Alternate Name(s)	Facility Address	Zip Code	Active EPA ID No.	Ecology CSCSL	NPDES Permit	KCIW Discharge Permit	LUST	UST	Ecology NFA	Map ID[1]
53456833	Puget Sound Tug & Barge Company	Bird Johnson Port, Birmingham Steel Corporation, Boeing Company Terminal 105, Crowley Marine Services Inc T105, Crowley Marine Services Inc Marginal Way, Ferguson Enterprises, General Recycling of Washington, Terminal 105	4620 West Marginal Way SW	98106						●		17
74783572	Rainier Petroleum	Mobil Oil Corp, Rainier Petroleum Leasee, Rainier Petroleum P15	1711 13th Avenue SW	98134	●		●					D-8
23451	Raynproof Roofing	None	4117 16th Avenue SW	98106								13
38575346	Rosa Environmental Geotechnical Lab LLC	None	1001 SW Klickitat Way, Suite 107	98134								D-67
2038	Seafab Metal Surface Impoundment	Seafab Metals Co, Seafab Metals Corp	2700 16th Avenue SW	98134		●				●		D-38
2037	Seafab Metals Co	Seafab Metal Surface Impoundment, Seafab Metals Corp	2700 16th Avenue SW	98134		●						D-39
49669357	Seaport Petroleum	Seaport Petroleum Co 13th Ave	2921 13th Avenue SW	98134	●					●		D-43
16808	Seattle Bulk Shipping LLC	Fisher Flower Mill	3233 16th Avenue SW	98134			●					D-53
48322618	Seattle City Eng Dept 16th Ave S	None	East Side 16th Avenue SW & North of SW Lan	98134	●							D-37
59252684	Seattle Parks and Recreation Westbridge Facility	Bank of America Central Services Bldg, Central Services Bldg, Seafirst Bank Central Svcs, Seattle Parks and Recreation Westbridge Facility	4209 West Marginal Way SW	98106	●							16
88471591	Seattle City Seaboard Lumber former site	Evergreen Trails Inc, Gray Line of Seattle Marginal Way, Northwest Container Services, Paccar Seaboard Lumber Property, Puget Sound Tug & Barge Company	4540 West Marginal Way SW	98106					●	●	●	20, 21
2027	Seattle Iron & Metals Main Yard	Seattle Iron & Metals Corp, Seattle Iron & Metals South Yd, Seattle Iron Metals Corp	2955 11th Avenue SW	98134		●			●	●		D-32
2025	Seattle Port Leckenby Co	Leckenby Co Ben Weeks, Port of Seattle Leckenby Co, Walashek Industrial & Marine	11th Avenue SW Terminal 18D	98134		●						D-48
71252794	Seattle Port Term 18	Terminal 18	2400 11th Avenue SW Site B	98134	●				●	●		D-5
79222474	Seattle Port Term 18F	Walashe Industrial & Marine	3236 16th Avenue SW	98134	●					●		D-54
57949691	Seattle Port Terminal 102	None	1001 SW Klickitat Way	98134								
66711778	Seattle Port Terminal 105	Bird Johnson Port, Birmingham Steel Corporation, Boeing Company Terminal 105, Crowley Marine Services Inc T105, Crowley Marine Services Inc Marginal Way, Ferguson Enterprises, General Recycling of Washington, Terminal 105	4260 West Marginal Way SW	98106	●				●	●		9, 10, 12 17
7811383	Seattle Port Terminal 18D	None	2900 11th Avenue SW Terminal 18D	98134	●							D-28
79121654	Seattle Public Utilities Hbr Is Otfl	Seattle Public Utilities 13th Ave	13th Avenue SW & SW Florida Street	98134	●							D-15
41742472	Seattle Sch Dist Cooper Elementary	Cooper Elementary Schoo	1801 SW Genesee Street	98106								D-81
2093	Seattle Steel Industrial Fasteners	Riverside Mill, Industrial Fasteners Plant, Seattle Steel Inc Industrial Fastener Division, SSI Real Estate Co Inc	3800 West Marginal Way SW	98106		●				●	●	1
2030	Shell Oil Product Seattle Terminal	Equilon Enterprises, Equilon Enterprises Lubricants Plant, Equilon Seattle Distribution Terminal, Shell Oil Product Seattle Terminal, Shell Oil Products 13th Ave SW, Shell Oil Products US Seattle Terminal, Texaco Marketing & Refining Harbor Island	2555 13th Avenue SW	98134	●	●	●		●	●		D-26
2028	Shell Old Terminal 18 Port of Seattle	Old Shell Tank Farm, Port of Seattle Terminal 18	Terminal 18	98134		●						D-47
62295932	Stevedoring Services of America UST 3927	None	3415 11th Avenue SW	98134					●	●		D-58
13675348	Stevedoring Svcs of America	None	1050 SW Spokane Street	98134	●		●					D-13
2438	Strutz Property	None	4201 16th Avenue SW	98106		●					●	15
72619293	System Supply Spokane Street	None	2324 SW Spokane Street	98106						●		

Table C-1
Facilities within the Duwamish West CSO Basin

Facility/ Site ID	Facility Name	Alternate Name(s)	Facility Address	Zip Code	Active EPA ID No.	Ecology CSCSL	NPDES Permit	KCIW Discharge Permit	LUST	UST	Ecology NFA	Map ID[1]
NA	Terminal 103	Fletcher General Inc, General Construction Rock Products, General Construction Seattle Site, HW Blackstock Co. Northwest Aggregates, Glacier Northwest	3838 West Marginal Way SW	98106								3
NA	Terminal 107	4800 W Marginal, Vacant UST 2482 Marginal Way SW	5402 West Marginal Way SW	98106								32
69675738	Tesoro Petroleum Co	None	2720 13th Avenue SW Tank 43	98134								D-31
3916283	ThermoRetec Consulting Corporation	None	1011 SW Klickitat Way, Suite 207	98134								D-60
2031	Todd Pacific Shipyards	Former Mobil Oil, Seattle Division	1801 16th Avenue SW	98134	●	●	●		●	●		D-12
56951146	Total Reclaim Inc Seattle	Total Reclaim Inc	1131 SW Hanford Street	98134						●		D-51
3208182	Trident Seafood FV Seattle Enterprise	Former Mobil Oil, Seattle Division	1801 16th Avenue SW	98134								D-14
20891	Tryg Winquist Construction Co	None	3839 West Marginal Way SW	98106								5
89431534	United Motor Freight	Riverside Mill	3800 West Marginal Way SW	98106	●							1
12426841	US EPA Harbor Island Superfund Site	None	Entirety of Harbor Island	98134								D-18
96168526	Vacant UST 2482 Marginal Way SW	4800 W Marginal, Terminal 107	4842 West Marginal Way SW	98106						●		31
2032	Value Plating & Metal POL	None	3207 11th Avenue SW	98134		●						D-41
53234548	Wartsila Inc	None	1731 13th Avenue SW	98134								D-11
NA	Washington Federal Savings & Loan Cement Kiln Dust site	SW Hudson & West Marginal Way SW Site, Surplus Items, LLC	SW Hudson & West Marginal Way					●				33
59298453	Washington Tank Corp	None	2745 11th Avenue SW	98134								D-21
3858982	West Seattle Estates LLC	None	4699 15th Avenue SW	98106		●					●	23
14517	West Seattle Radiator Service W Marginal Way	4101 West Marginal Way SW Business Park	4101 West Marginal Way SW, A3	98106								14
2981502	West Seattle Recycling Center	None	3881 16th Avenue SW	98106								6
57193311	West Waterway Terminals	Island Tug & Barge	3518 West Marginal Way SW	98106								D-69
2999235	Westbridge Building	Bank of America Central Services Bldg, Central Services Bldg, Seafirst Bank Central Svcs, Seattle Parks and Recreation Westbridge Facility	4201 West Marginal Way SW	98106		●			●	●		16
2039	Weyerhaeuser Lab	Harbor Island Busness Ctr, Pacific Resins & Chem, Weyerhaeuser Seattle Lab-Undeveloped Property Adjacent	3233 11th Avenue SW	98134		●						D-42
1916	Wheelchairs Plus Inc	4101 West Marginal Way SW Business Park	4101 West Marginal Way SW, A2	98106								14
2324876	Wilhelmsen Ship Services	None	1721 13th Avenue SW	98134	●							D-6

1 - See Appendix C, Figure C
EPA - U.S. Environmental Protection Agency
Ecology - Washington State Department of Ecology
CSCSL - Confirmed or Suspected Contaminated Sites List
NPDES - National Pollutant Discharge Elimination System
KCIW - King County Industrial Waste
LUST - Leaking Underground Storage Tank
UST - Underground Storage Tank
NFA - No Further Action

Source Control Areas

- Harbor Island
- RM 0.0-0.1 East (Spokane Street to Ash Grove Cement)
- RM 1.0-1.3 West (Kellogg Island to Lafarge)
- RM 1.3-1.6 West (Glacier Bay)
- RM 1.3-1.6 West (Glacier Bay) & RM 1.6-2.1 West (Terminal 115)

Table C-2
Property Information for Facilities in the Duwamish West CSO Basin with Ecology Facility/Site Identification Numbers

Facility/ Site ID	Facility Name	Facility Address	Zip Code	Parcel(s) & Alternate Addresses	Property Owner	Acreage (acres, sq ft)	Buildings (year built, sq ft)	Map ID[1]
93395933	17th SW Drums	5934 17th Avenue SW	98106	3438500807	Greg & Roileen Domingues	0.14 a, 6,258 sq ft	B-1 (1978,1,010 sq ft)	35
15472775	4800 W Marginal	4800 West Marginal Way SW	98106	0213000046: 4618 West Marginal Way SW 1924049103: 5402 West Marginal Way SW 2840201235: 4816 West Marginal Way SW 7666703705: 1203 SW Alaska Street 7666703710: 1203 SW Alaska Street	Port of Seattle	0046: 0.10 a, 4,440 sq ft 1235: 0.08 a, 3,506 sq ft 3705: 0.02 a, 980 sq ft 3710: 0.01 a, 460 sq ft 9103: 59.66 a, 2,598,796 sq ft	None listed in King County Tax Assessor Records	31
20843	Active Environmental Inc 16th Ave	4001 16th Avenue SW	98106	7547301700: 3864 17th Avenue SW 7547300645: 4001 16th Avenue SW 7547300520: 4002 17th Avenue SW	Richard H Fraser	0645: 0.06 a, 2,500 sq ft 1700: 0.20 a, 8,520 sq ft 0520: 0.11 a, 5,000 sq ft	None	7
85392668	Aiem Industrial Inc	1137 SW Hanford Street	98134	Not Determined				D-50
8547	Airclean Technologies Inc	4725 West Marginal Way SW	98106	2840200650	B&K Hunter LLC	0.17 a, 7,500 sq ft	B-1 (1984, 5,880 sq ft)	22
88255195	Alaska Marine Lines 5615 W Marginal Way	5615 West Marginal Way SW	98106	1924049093: 5615 West Marginal Way SW 1924049050: 5423 West Marginal Way SW		9093: 1.78 a, 77,536 sq ft 9050: 0.49 a, 21,344 sq ft	9093: None 9050: B-1 (1965, 9,680 sq ft)	D-85
19450	Alaska Marine Lines Seattle Terminal	5502 & 5658 West Marginal Way SW	98106	Not Determined				D-83
3532383	Alaska Railroad Corp	1140 SW Massachusetts Street	98134	7671800549	Alaska Railroad Corp	2.05 a, 89,300 sq ft	None	D-1
4488666	All State Industrial Marine	3417 13th Avenue SW	98134	Not Determined				D-63
11229	Aquatic Ent Inc	4101 West Marginal Way SW, Ste A6	98106	7547800615: 4103 West Marginal Way SW 7666703805: 4005 West Marginal Way SW 7547800565: 4101 West Marginal Way SW 7547800575: 4101 West Marginal Way SW 7547800585: 4101 West Marginal Way SW	BBLL LLC	0615: 0.34 a, 15,010 sq ft 3805: 0.08 a, 3,621 sq ft 0565: 0.17 a, 7,571 sq ft 0575: 0.08 a, 3,358 sq ft 0585: 0.19 a, 8,417 sq ft	0615: B-1 (2002, 11,646 sq ft) 0615: B-2 (2001, 8,660 sq ft)	14
2034	Asahipen America Inc	1128 SW Spokane Street	98134	7666702165	The Dutchman LLC		B-1 (1926, 23,590 sq ft)	D-73
1827143	BASF	2400 11th Avenue SW Terminal 18	98134	7666701356: 2900 11th Avenue SW	Port of Seattle	114.92 a, 5,005,915 sq ft	1356: B-1(1965, 6,379 sq ft)	D-17
4091	BASF at United Motor Freight	3800 West Marginal Way SW, Bldg 3	98106	7666703290: 3800 West Marginal Way SW 7666703321: 3835 West Marginal Way SW	Riverside Mill LLC	3290: 6.23 a, 271,281 sq ft 3321: 0.09 acres (3,727 sq ft)	3290: B-1 (1948, 35,822 sq ft) 3290: B-2 (1948, 35,000 sq ft) 3290: B-3 (1948, 25,188 sq ft)	1
44375557	Bird Johnson Port	4100 West Marginal Way SW	98106	7666703530: 4100 W Marginal Way SW 7666703462: NA	Lipsett Co LLC	3530: 5.20 a, 226,716 sq ft 3462: 0.84 a, 36,638 sq ft	3530: B-1 (1953, 72,719 sq ft) 3530: B-2 (1968, 25,240 sq ft)	9
81228316	Block 401 Leckenby Cohen Bldg	3436 16th Avenue SW	98134	Not Determined				D-57
NA	BNSF Railroad Right-of-Way	Burlington Northern Santa Fe Railroad Right-of-Way	98106	7666703320	BNSF	1.31 acres (56,994 sq ft)	None	
8573843	Bob Leonard Elliot Bay	1011 SW Klickitat Way	98134	7666701220	Port of Seattle	18.47 a, 804,636 sq ft	B-1 (1989, 56,600 sq ft)	D-7
10931	Bobs Boats	3800 West Marginal Way SW, Bldg 4	98106	7666703290: 3800 West Marginal Way SW 7666703321: 3835 West Marginal Way SW	Riverside Mill LLC	3290: 6.23 a, 271,281 sq ft 3321: 0.09 acres (3,727 sq ft)	3290: B-1 (1948, 35,822 sq ft) 3290: B-2 (1948, 35,000 sq ft) 3290: B-3 (1948, 25,188 sq ft)	1
97821669	Boeing Company Terminal 105	4260 West Marginal Way SW	98106	7666703630	General Recycling of Washington LLC	3630: 11.04 a, 480,898 sq ft	NA	10
2024	BP West Coast Products	1652 SW Lander Street	98134	7666702900	BP West Coast Products LLC	12.8 a, 557,420 sq ft	B-1 (1941, 22,050 sq ft)	D-36
31119678	Brys Auto Wrecking	4025 West Marginal Way SW	98106	7666703865:4025 West Marginal Way SW 7666703855: NA 7666703870:4035 West Marginal Way SW 7666703835: 16th Avenue SW 7666703845: 4015 West Marginal Way SW	Too Marginal LLC	3865: 0.1 a, 4,348 sq ft 3855: 0.12 a, 5,120 sq ft 3870: 0.02 a, 800 sq ft 3835: 0.06 a, 2,589 sq ft 3845: 0.07 a, 3,250 sq ft	3865: B-1 (1942, 3,100 sq ft)	8
2185	Central Painting	4749 West Marginal Way SW	98106	2840200490	Sea Be Commercial Ventures	0.4 a, 17,318 sq ft	B-1 (1964, 4,032 sq ft)	24
41953656	Chemithon Corp	5430 West Marginal Way SW	98106	1924049098	Chemithon Corp	2.66 a, 115,870 sq ft	B-1 (1958, 22,640 sq ft)	D-84
11384881	Clean Sound Cooperative Harbor Island Sh	2406 13th Avenue SW	98134	Not Determined				D-20
NA	Cohesive Garage	4101 West Marginal Way SW	98106	7547800615: 4103 West Marginal Way SW 7666703805: 4005 West Marginal Way SW 7547800565: 4101 West Marginal Way SW 7547800575: 4101 West Marginal Way SW 7547800585: 4101 West Marginal Way SW	BBLL LLC	0615: 0.34 a, 15,010 sq ft 3805: 0,08 a, 3,621 sq ft 0565: 0.17 a, 7,571 sq ft 0575 0.08 a, 3,358 sq ft 0585: 0.19 a, 8,417 sq ft	0615: B-1 (2002, 11,646 sq ft) 0615: B-2 (2001, 8,660 sq ft)	14
45768719	Combustion Systems & Fabrication	3207 11th Avenue SW	98134	Not Determined				D-76
9688	Concrete Restoration Inc	4025 West Marginal Way SW	98106	7666703865:4025 West Marginal Way SW 7666703855: NA 7666703870:4035 West Marginal Way SW 7666703835: 16th Avenue SW 7666703845: 4015 West Marginal Way SW	Too Marginal LLC	3865: 0.1 a, 4,348 sq ft 3855: 0.12 a, 5,120 sq ft 3870: 0.02 a, 800 sq ft 3835: 0.06 a, 2,589 sq ft 3845: 0.07 a, 3,250 sq ft	3865: B-1 (1942, 3,100 sq ft)	8
10412	Continental Van Lines	4501 West Marginal Way SW	98106	1824049046: 4501 West Marginal Way SW 1824049096: 3850 West Marginal Way SW 1824049022 1824049078	West Marginal Properties	9046: 2.8 a, 121,867 sq ft 9069: 1.07 a, 46526 sq ft 9022: 4.15 a, 180,744 sq ft 9078: 1.99 a, 86,684 sq ft	9046: B-1 (1974, 11,800 sq ft) 9046: B-2 (1962, 12,000 sq ft) 9046: B-3 (1986, 3,483 sq ft)	19
33133593	Cooper Elementary School	1901 SW Genesee Street	98106	1324039116: 1900 SW Genesee Street	Seattle School District	13.93 a, 606,916 sq ft	B-1 (1999, 68,509 sq ft)	D-80
2112	Crosby & Overton Inc, 13th SW	3406 13th Avenue SW	98134	Not Determined				D-62
22662567	Crowley Marine Services Inc	1100 SW Massachusetts Street	98134	7666701356: 2900 11th Avenue SW	Port of Seattle	114.92 a, 5,005,915 sq ft	B-1 (1965, 6,379 sq ft)	D-4

Table C-2
Property Information for Facilities in the Duwamish West CSO Basin with Ecology Facility/Site Identification Numbers

Facility/ Site ID	Facility Name	Facility Address	Zip Code	Parcel(s) & Alternate Addresses	Property Owner	Acreage (acres, sq ft)	Buildings (year built, sq ft)	Map ID[1]
24172765	Crowley Marine Services Inc Marginal Way	4154 West Marginal Way SW	98106	7666703540: 4200 West Marginal Way SW 7666703630: NA 1824049018: NA	General Recycling of Washington LLC	3540: 5.83 a, 253,742 sq ft 3630: 11.04 a, 480,898 sq ft 9018: 2.96 a, 128,755 sq ft	3540: B-1 (1960, 10,50 sq ft) 3540:B-2 (1962, 5,475 sq ft)	17
2164	Crowley Marine Services Pier 17	1102 SW Massachusetts Street	98134	7666701356 - 2900 11th Avenue SW	Port of Seattle	114.92 a, 5,005,915 sq ft	B-1 (1965, 6,379 sq ft)	D-3
13586515	Crowley Marine Svc Inc Pier 15 1/2	1810 13th Avenue SW	98134	7671800136 - 13th Avenue SW	Port of Seattle	1.75 a, 76,080 sq ft	B-1 (1970, 3,125 ft)	D-10
39342192	Dakota Street	4101 West Marginal Way SW	98106	7547800615: 4103 West Marginal Way SW 7666703805: 4005 West Marginal Way SW 7547800565: 4101 West Marginal Way SW 7547800575: 4101 West Marginal Way SW 7547800585: 4101 West Marginal Way SW	BBLL LLC	0615: 0.34 a, 15,010 sq ft 3805: 0.08 a, 3,621 sq ft 0565: 0.17 a, 7,571 sq ft 0575: 0.08 a, 3,358 sq ft 0585: 0.19 a, 8,417 sq ft	0615: B-1 (2002, 11,646 sq ft) 0615: B-2 (2001, 8,660 sq ft)	14
21179265	Duroboat Manufacturing Company	1140 SW Dakota Street	98106	7666703464: 4034 West Marginal Way SW	Biodiesel Properties LLC	1.32 a, 57,358 sq ft	B-1 (2000, 29,639 sq ft)	12
1582	Duwamish Properties Shoreside Support HQ	910 SW Spokane Street	98134	7666701275	Duwamish Properties LLC	3.22 a, 140,187 sq ft	B-1 (1924, 8,420 sq ft)	D-68
2071	Duwamish Shipyard, Inc.	5658 West Marginal Way SW	98106	1924049028	Duwamish Shipyard Inc.	4.93 a, 214,853 sq ft	B-1 (1941, 2,784 sq ft)	D-86
62678833	Ecolights Northwest	1141 SW Hanford Street	98134	Not Determined				D-49
1378425	Equilon Seattle Distribution Terminal	2555A 13th Avenue SW	98134	Not Determined				D-29
6697	Evergreen Building Products LLC	4835 West Marginal Way SW	98106	2840201475	David & Eugenie Jack	0.90 a, 39,375 sq ft	B-1 (1980, 241,000 sq ft)	29
83317575	Evergreen Trails	4500 West Marginal Way SW	98106	7666703680: 4500 West Marginal Way SW	Evergreen Trails Inc.	6.00 a, 261,361 sq ft	B-1 (1997, 40,189 sq ft) B-2 (2005, 1,200 sq ft)	20
18675	Ferguson Enterprises Inc.	4100 West Marginal Way SW	98106	7666703530: 4100 W Marginal Way SW 7666703462: NA	Lipsett Co LLC	3530: 5.20 a, 226,716 sq ft 3462: 0.84 a, 36,638 sq ft	3530: B-1 (1953, 72,719 sq ft) 3530: B-2 (1968, 25,240 sq ft)	9
17733	Fisher Flower Mill	3233 16th Avenue SW	98134	7666703020: 3235 16th Avenue SW 7666703040: 3235 16th Avenue SW 7666703035: 3235 16th Avenue SW 7666703030: 3235 16th Avenue SW 7666703025: 3235 16th Avenue SW	King County Property Services Division	3020: 7.04 a, 306,549 sq ft 3040: 0.74 a, 32,250 sq ft 3035: 0.61 a, 26,764 sq ft 3030: 0.73 a, 31,820 sq ft 3025: 0.48 a, 21,213 sq ft	3020: B-1 (1916, 79,600 sq ft)	D-52
13266447	Fisher Mills	3235 16th Avenue SW	98134	7666703020: 3235 16th Avenue SW 7666703040: 3235 16th Avenue SW 7666703035: 3235 16th Avenue SW 7666703030: 3235 16th Avenue SW 7666703025: 3235 16th Avenue SW	King County Property Services Division	3020: 7.04 a, 306,549 sq ft 3040: 0.74 a, 32,250 sq ft 3035: 0.61 a, 26,764 sq ft 3030: 0.73 a, 31,820 sq ft 3025: 0.48 a, 21,213 sq ft	3020: B-1 (1916, 79,600 sq ft)	D-56
1184778	Fog Tite Inc	4819 West Marginal Way SW	98106	2840201500: 4819 West Marginal Way SW 2840201575: 4809 West Marginal Way SW	Fog Tite Meter Seal Co LLC	1500: 0.80 a, 35,000 sq ft 1575: 0.29 a, 12,641 sq ft	1500: B-1 (1966, 10,440 sq ft)	28
82726738	Foreign Trade Zone 5, Building 85	13th Avenue SW	98134	7671800577	State of Washington	2.27 a, 98,880 sq ft		D-9
72321478	Fraser Inc	3801 West Marginal Place SW	98106	9349900331 7547300667:3801 West Marginal Way SW 7666703920 3601 West Marginal Way SW 98106	0331 & 0667: TTP LLC 3920:3601 W Marginal Way SW LP	0667: 0.23 a, 10,125 sq ft 0331: 0.17 a, 7,250 sq ft 3920: 0.46 a, 20,010 sq ft	0667: B-1 (1971, 10,178 sq ft)	2
96957364	Frontier Foundations Inc	3221 13th Avenue SW	98134	Not Determined				D-55
6869	General Biodiesel Inc	4034 West Marginal Way SW	98106	7666703464	Biodiesel Properties LLC	1.32 a, 57,358 sq ft	B-1 (2000, 29,639 sq ft)	12
8753555	General Construction	1801 16th Avenue SW	98134	7666702850	Todd Shipyard Corp	27.80 a, 1,210,968 sq ft	B-1 (1900, 18,010 sq ft)	D-25
94648691	General Construction Co Seattle Site	3838 West Marginal Way SW	98106	7666703440: 3838 West Marginal Way SW	Port of Seattle	8.07 a, 352,638 sq ft	B-1 (1937, 1,992 sq ft) B-2 (1939, 10,044 sq ft) B-3 (1943, 1,056 sq ft) B-4 (1990, 16,100 sq ft) B-5 (1999, 6,000 sq ft)	3
18553	General Recycling of Washington	4260 West Marginal Way SW	98106	7666703540: 4200 West Marginal Way SW 7666703630 1824049018	General Recycling of Washington LLC	3540: 5.83 a, 253,742 sq ft 3630: 11.04 a, 480,898 sq ft 9018: 2.96 a, 128,755 sq ft	3540: B-1 (1960, 10,50 sq ft) 3540:B-2 (1962, 5,475 sq ft)	17
2035	General Transport Co 13th Ave SW	2937 13th Avenue SW	98134	Not Determined				D-46
23881883	Glacier Northwest Inc	5900 West Marginal Way SW	98106	1924049029	Glacier Northwest Inc.	18.2 a, 792,595 sq ft	B-1 (1967, 17,312 sq ft)	D-89
2302559	Glacier Northwest, Inc. Seattle	3838 West Marginal Way SW	98124	7666703440: 3838 West Marginal Way SW	Port of Seattle	8.07 a, 352,638 sq ft	B-1 (1937, 1,992 sq ft) B-2 (1939, 10,044 sq ft) B-3 (1943, 1,056 sq ft) B-4 (1990, 16,100 sq ft) B-5 (1999, 6,000 sq ft)	3
89139472	Glacier NW Reichhold MTCA	5904-5906 West Marginal Way SW	98111	1924049029	Glacier Northwest Inc.	18.2 a, 792,595 sq ft	B-1 (1967, 17,312 sq ft)	D-87
83315373	Global Diving	2763 13th Avenue SW	98134	Not Determined				D-34
NA	Global Diving & Salvage	3840 West Marginal Way SW	98106	7666703442	Marginal Group LLC	0.95 acre (41,339 sq ft)	B-1 (1953, 1,152 sq ft) B-2 (1929, 8,624 sq ft)	4
75577212	Gray Line of Seattle Marginal Way	4500 West Marginal Way SW	98106	7666703680: 4500 West Marginal Way SW	Evergreen Trails Inc.	6.00 a, 261,361 sq ft	B-1 (1997, 40,189 sq ft) B-2 (2005, 1,200 sq ft)	20
2021	Harbor Island	Harbor Island	98134	Not Determined				D-33
64974285	Harbor Island Business Ctr	3400 13th Avenue SW	98134	Not Determined				D-61
539878	Harbor Island Marchine Works Inc.HARBOR ISLAN	3431 11th Avenue SW	98134	7666702200	Lauren T & Paul M Defaccio	0.73 a, 31,800 sq ft	B-1 (1900, 1,681 sq ft)	D-74
63542451	Harbor Island Service	3419 13th Avenue SW	98134	Not Determined				D-64

Table C-2
Property Information for Facilities in the Duwamish West CSO Basin with Ecology Facility/Site Identification Numbers

Facility/ Site ID	Facility Name	Facility Address	Zip Code	Parcel(s) & Alternate Addresses	Property Owner	Acreage (acres, sq ft)	Buildings (year built, sq ft)	Map ID[1]
34525399	Harbor Marina Corporate Center	1001 SW Klickitat Way, Suite 101	98134	7666701250	Harbor Real Estate	2.49 a, 108,472 sq ft	B-1 (1998, 17,209 sq ft)	D-79
17035	Hardware Specialty Co	3419 11th Avenue SW	98134	7666702210	Eleventh Avenue Harbor Island	0.73 a, 31,800 sq ft	B-1 (1900, 20,200 sq ft)	D-66
16129	Heath Landscape Services Inc	4849 West Marginal Way SW	98106	2840201470	Donald E & Ellen O Heath	0.20 a, 8,566 sq ft	B-1 (1980, 2,000 sq ft)	30
12698	Heathco Intl Inc	4033 16th Avenue SW, Ste B	98106	7547300595: 4025 16th Avenue SW	Colin Tsuchikawa	0.39 a, 16,852 sq ft	B-1 (2000, 10,984 sq ft)	11
76453385	HW Blackstock Co	4000 West Marginal Way SW	98106	7666703460: 4014 West Marginal Way SW 7666703532	Port of Seattle	3460: 2.66 a, 115,664 sq ft 3532: 2.00 a, 87,023 sq ft	NA	10
2033	Industrial Office Complex	3400 11th Avenue SW	98134	Not Determined				D-70
6681862	Island Tug & Barge Company	3546 West Marginal Way SW	98124	7666703985: 3546 West Marginal Way SW 7666703990 7666703967: 3518 West Marginal Way SW	ITB Holding Company L L C	3985: 1.69 a, 73,499 sq ft 3990: 0.84 a, 36,649 sq ft 3967: 2.88 a, 125,510 sq ft	3985: B-1 (1975, 66,672 sq ft) 3967: B-1 (1966, 95,836 sq ft)	D-71
65161571	Jacob Stern Sons Inc	2900 11th Avenue SW	98134	7666701356	Port of Seattle	114.92 a, 5,005,915 sq ft	B-1 (1965, 6,379 sq ft)	D-27
88394523	Kinder Morgan Liquids Terminals LLC	2720 13th Avenue SW	98134	Not Determined				D-23
2132	Lafarge North America Inc Seattle	5400 West Marginal Way SW	98106	1924049003	Lafarge Corporation	22.11 a, 963,128 sq ft	B-1 (1968, 141,125 sq ft)	D-82
2036	Lockheed Shipbldg Co Yard 1	2929 16th Avenue SW	98134	Not Determined	Port of Seattle			D-44
42166484	Lynden Air Freight Inc	5615 West Marginal Way SW	98106	1924049093: 5615 West Marginal Way SW 1924049050: 5423 West Marginal Way SW		9093: 1.78 a, 77,536 sq ft 9050: 0.49 a, 21,344 sq ft	9050: B-1 (1965, 9680)	D-85
30965651	Manning St Waste	11th Avenue SW & SW Manning Street	98134	Not Determined				D-72
66385168	Martin Surfacing	3420 13th Avenue SW	98134	Not Determined				D-35
5568964	Meltec Division of Young Corporation	3444 13th Avenue SW	98134	7666702155	Yound Corporation	1.46 a, 63,600 sq ft	B-1 (1979, 4,400 sq ft)	D-65
NA	Metal Shorts	4101 West Marginal Way SW	98106	7547800615: 4103 West Marginal Way SW 7666703805: 4005 West Marginal Way SW 7547800565: 4101 West Marginal Way SW 7547800575: 4101 West Marginal Way SW 7547800585: 4101 West Marginal Way SW	BBLL LLC	0615: 0.34 a, 15,010 sq ft 3805: 0.08 a, 3,621 sq ft 0565: 0.17 a, 7,571 sq ft 0575: 0.08 a, 3,358 sq ft 0585: 0.19 a, 8,417 sq ft	0615: B-1 (2002, 11,646 sq ft) 0615: B-2 (2001, 8,660 sq ft)	14
14736531	Mono Industrial Roofing	1112 SW Spokane Street	98134	Not Determined				D-78
9627	New Finishes Inc W Marginal Way	4235 West Marginal Way SW	98106	1824049044: 4229 West Marginal Way SW	Visko Enterprises Inc.	2.66 acres, 115,869 sq ft	B-1 (1953, 31,521 sq ft)	18
2026	Non Ferrous Metals Inc	2905 13th Avenue SW	98134	Not Determined				
7754458	Northwest Aggregates	3838 West Marginal Way SW	98106	7666703440: 3838 West Marginal Way SW	Port of Seattle	8.07 a, 352,638 sq ft	B-1 (1937, 1,992 sq ft) B-2 (1939, 10,044 sq ft) B-3 (1943, 1,056 sq ft) B-4 (1990, 16,100 sq ft) B-5 (1999, 6,000 sq ft)	3
14216312	Northwest Enviroservice Inc Seattle	2773 11th Avenue SW	98134	Not Determined				D-24
2022	Olympic Pipe Line Co Harbor Island	2444 13th Avenue SW	98134	Not Determined				D-22
14845	Olympic Tug and Barge	910 SW Spokane Street	98134	Not Determined				D-77
9581551	Ortega Property	5235 18th Avenue SW	98106	3438500191	Antonio Ortega	0.12 a, 5,207 sq ft	B-1 (1928, 970 sq ft)	34
2023	Pacific Molasses Co PM AG Products SEA	3200 11th Avenue SW	98134	Not Determined				D-40
4613117	Pacific Rendering Co	2926 16th Avenue SW	98134	Not Determined				D-45
10287	Pacific Rendering Co Inc	4034 West Marginal Way SW	98106	7666703464	Biodiesel Properties LLC	1.32 a, 57,358 sq ft	B-1 (2000, 29,639 sq ft)	12
23704	Pacifica Marine Inc	4233 West Marginal Way SW	98106	1824049044: 4229 West Marginal Way SW	Visko Enterprises Inc.	2.66 a, 115,869 sq ft	B-1 (1953, 31,521 sq ft)	18
24724	Penthouse Drapery 16th Ave	4033 16th Avenue SW, Ste A	98106	7547300595: 4025 16th Avenue SW	Colin Tsuchikawa	0.39 a, 16,852 sq ft	B-1 (2000, 10,984 sq ft)	11
5735798	Pioneer Construction Materials Co	910 SW Spokane Street	98134	7666701275	Duwamish Properties LLC	3.22 a, 140,187 sq ft	B-1 (1924, 8,420 sq ft)	D-75
69852439	Port of Seattle	SW Florida Street	98134	7671800251	Equilon Enterprises LLC	2.44 a, 106,100 sq ft		D-19
68272713	Port of Seattle 13th & Florida	13th Avenue SW & SW Florida Street	98134	7671800136	Port of Seattle	1.75 a, 76,080 sq ft	B-1 (1970, 3,125 sq ft)	D-16
2460195	Port of Seattle 2720 13th Ave	2720 13th Avenue SW	98134	Not Determined				D-30
2177	Port of Seattle N Terminal 115	6000 West Marginal Way SW	98106	5367202505	Port of Seattle	98.71 a, 4,299,853 sq ft	B-1 (1970, 260,000 sq ft)	D-88
9033844	Port of Seattle Pier 15 1/2	1124 SW Massachusetts Street	98134	Not Determined				D-2
26557446	Premier Pacific Seafoods	1011 SW Klickitat Way, Suite 100	98134	7666701220	Port of Seattle	18.47 a, 804,636 sq ft	B-1 (1989, 56,600 sq ft)	D-59
53456833	Puget Sound Tug & Barge Company	4620 West Marginal Way SW	98106	7666703540: 4200 West Marginal Way SW 7666703630: NA 1824049018: NA	General Recycling of Washington LLC	3540: 5.83 a, 253,742 sq ft 3630: 11.04 a, 480,898 sq ft 9018: 2.96 a, 128,755 sq ft	3540: B-1 (1960, 10,50 sq ft) 3540:B-2 (1962, 5,475 sq ft)	17
74783572	Rainier Petroleum	1711 13th Avenue SW	98134	7671800250	Mobil Oil Corporation	01.3 a, 56,688 sq ft	B-1 (1962, 6,519 sq ft)	D-8
23451	Raynproof Roofing	4117 16th Avenue SW	98106	7547800510: 4032 17th Avenue SW 7547800520: 4121 16th Avenue SW 7547800525: 4117 16th Avenue SW	Tammy & Dan J Rheaume	0510: 0.12 a, 5,376 sq ft 0525: 0.36 a, 15,600 sq ft 0520: 0.06 a, 2,600 sq ft	0525: B-1 (1918, 510 sq ft) 0520: B-1 (1918, 510 sq ft)	13
38575346	Rosa Environmental Geotechnical Lab LLC	1001 SW Klickitat Way, Suite 107	98134	Not Determined				D-67
2038	Seafab Metal Surface Impoundment	2700 16th Avenue SW	98134	Not Determined				D-38
2037	Seafab Metals Co	2700 16th Avenue SW	98134	Not Determined				D-39
49669357	Seaport Petroleum	2921 13th Avenue SW	98134	Not Determined				D-43
16808	Seattle Bulk Shipping LLC	3233 16th Avenue SW	98134	7666703020: 3235 16th Avenue SW 7666703040: 3235 16th Avenue SW 7666703035: 3235 16th Avenue SW 7666703030: 3235 16th Avenue SW 7666703025: 3235 16th Avenue SW	King County Property Services Division	3020: 7.04 a, 306,549 sq ft 3040: 0.74 a, 32,250 sq ft 3035: 0.61 a, 26,764 sq ft 3030: 0.73 a, 31,820 sq ft 3025: 0.48 a, 21,213 sq ft	3020: B-1 (1916, 79,600 sq ft)	D-53

Table C-2
Property Information for Facilities in the Duwamish West CSO Basin with Ecology Facility/Site Identification Numbers

Facility/ Site ID	Facility Name	Facility Address	Zip Code	Parcel(s) & Alternate Addresses	Property Owner	Acreage (acres, sq ft)	Buildings (year built, sq ft)	Map ID[1]
48322618	Seattle City Eng Dept 16th Ave S	East Side 16th Avenue SW & North of SW Lande	98134	Not Determined				D-37
88471591	Seattle City Seaboard Lumber former site	4540 West Marginal Way SW	98106	7666703670 7666703680: 4500 West Marginal Way SW 1924049104: 5428 West Marginal Way SW	3670 & 9104: City of Seattle Parks Department 3680: Evergreen Trails Inc	3670: 6.57 a, 286,064 sq ft 3680: 6.00 a, 261,361 sq ft 9104: 8.05 a, 350,503 sq ft	3680: B-1 (1997, 40,189 sq ft) 3680: B-2 (2005, 1,200 sq ft)	21
2027	Seattle Iron & Metals Main Yard	2955 11th Avenue SW	98134	Not Determined				D-32
59252684	Seattle Parks and Recreation Westbridge Facility	4209 West Marginal Way SW	98106	1824049020: 4201 West Marginal Way SW	City of Seattle Parks Department	9020: 5.01 a, 219,450 sq ft	B-1 (1955, 113,780 sq ft)	16
2025	Seattle Port Leckenby Co	11th Avenue SW Terminal 18D	98134	Not Determined				D-48
71252794	Seattle Port Term 18	2400 11th Avenue SW Site B	98134	Not Determined				D-5
79222474	Seattle Port Term 18F	3236 16th Avenue SW	98134	Not Determined				D-54
57949691	Seattle Port Terminal 102	1001 SW Klickitat Way	98134	Not Determined				
66711778	Seattle Port Terminal 105	4260 West Marginal Way SW	98106	Terminal 105 Park: 7666703460: 4014 West Marginal Way SW 7666703532 Former Terminal 105: 7666703462, 7666703464, 7666703530, 7666703540,7666703630	3460 & 3532: Port of Seattle	3460: 2.66 a, 115,664 sq ft 3532: 2.00 a, 87,023 sq ft	See Ferguson Enterprises, Pacific Rendering Co Inc, and General Recycling of Washington for information regarding former Terminal 105 properties.	9, 10, 12, 17
7811383	Seattle Port Terminal 18D	2900 11th Avenue SW Terminal 18D	98134	Not Determined	Port of Seattle			D-28
79121654	Seattle Public Utilities Hbr Is Otfl	13th Avenue SW & SW Florida Street	98134	Not Determined	Seattle Public Utilities			D-15
41742472	Seattle Sch Dist Cooper Elementary	1801 SW Genesee Street	98106	1324039116: 1900 SW Genesee Street	Seattle School District	13.93 a, 606,916 sq ft	B-1 (1999, 68,509 sq ft)	D-81
2093	Seattle Steel Industrial Fasteners	3800 West Marginal Way SW	98106	7666703290: 3800 West Marginal Way SW 7666703321: 3835 West Marginal Way SW	Riverside Mill LLC	3290: 6.23 a, 271,281 sq ft 3321: 0.09 acres (3,727 sq ft)	3290: B-1 (1948, 35,822 sq ft) 3290: B-2 (1948, 35,000 sq ft) 3290: B-3 (1948, 25,188 sq ft)	1
2030	Shell Oil Product Seattle Terminal	2555 13th Avenue SW	98134	Not Determined				D-26
2028	Shell Old Terminal 18 Port of Seattle	Terminal 18	98134	Not Determined				D-47
62295932	Stevedoring Services of America UST 3927	3415 11th Avenue SW	98134	Not Determined				D-58
13675348	Stevedoring Svcs of America	1050 SW Spokane Street	98134	Not Determined	Stevedoring Services of American			D-13
2438	Strutz Property	4201 16th Avenue SW	98106	1324039025	Tammy & Dan J Rheaume	0.39 a, 17,000 sq ft	B-1 (1900, 1,710 sq ft)	15
72619293	System Supply Spokane Street	2324 SW Spokane Street	98106	1324039103	Seattle Department of Transportation	0.91 a, 39,567 sq ft		
NA	Terminal 103	3838 West Marginal Way SW	98106	7666703440: 3838 West Marginal Way SW	Port of Seattle	8.07 a, 352,638 sq ft	B-1 (1937, 1,992 sq ft) B-2 (1939, 10,044 sq ft) B-3 (1943, 1,056 sq ft) B-4 (1990, 16,100 sq ft) B-5 (1999, 6,000 sq ft)	3
NA	Terminal 107	5402 West Marginal Way SW	98106	0213000046: 4618 West Marginal Way SW 1924049103: 5402 West Marginal Way SW 2840201235: 4816 West Marginal Way SW 7666703705: 1203 SW Alaska Street 7666703710: 1203 SW Alaska Street	Port of Seattle	0046: 0.10 a, 4,440 sq ft 1235: 0.08 a, 3,506 sq ft 3705: 0.02 a, 980 sq ft 3710: 0.01 a, 460 sq ft 9103: 59.66 a, 2,598,796 sq ft	None listed in King County Tax Assessor Records	32
69675738	Tesoro Petroleum Co	2720 13th Avenue SW Tank 43	98134	Not Determined				D-31
3916283	ThermoRetec Consulting Corporation	1011 SW Klickitat Way, Suite 207	98134	7666701220	Port of Seattle	18.47 a, 804,636 sq ft	B-1 (1989, 56,600 sq ft)	D-60
2031	Todd Pacific Shipyards	1801 16th Avenue SW	98134	7666702850	Todd Shipyard Corp	27.80 a, 1,210,968 sq ft	B-1 (1900, 18,010 sq ft)	D-12
56951146	Total Reclaim Inc Seattle	1131 SW Hanford Street	98134	Not Determined				D-51
3208182	Trident Seafood FV Seattle Enterprise	1801 16th Avenue SW	98134	7666702850	Todd Shipyard Corp	27.80 a, 1,210,968 sq ft	B-1 (1900, 18,010 sq ft)	D-14
20891	Tryg Winquist Construction Co	3839 West Marginal Way SW	98106	7666703900	Tryg K. Winquist	0.10 a, 4,499 sq ft	B-1 (1979, 4,854 sq ft)	5
89431534	United Motor Freight	3800 West Marginal Way SW	98106	7666703290: 3800 West Marginal Way SW 7666703321: 3835 West Marginal Way SW	Riverside Mill LLC	3290: 6.23 a, 271,281 sq ft 3321: 0.09 acres (3,727 sq ft)	3290: B-1 (1948, 35,822 sq ft) 3290: B-2 (1948, 35,000 sq ft) 3290: B-3 (1948, 25,188 sq ft)	1
12426841	US EPA Harbor Island Superfund Site	Entirety of Harbor Island	98134	Not Determined				D-18
96168526	Vacant UST 2482 Marginal Way SW	None		0213000046: 4618 West Marginal Way SW 1924049103: 5402 West Marginal Way SW 2840201235: 4816 West Marginal Way SW 7666703705: 1203 SW Alaska Street 7666703710: 1203 SW Alaska Street	Port of Seattle	0046: 0.10 a, 4,440 sq ft 1235: 0.08 a, 3,506 sq ft 3705: 0.02 a, 980 sq ft 3710: 0.01 a, 460 sq ft 9103: 59.66 a, 2,598,796 sq ft	None listed in King County Tax Assessor Records	31
2032	Value Plating & Metal POL	3207 11th Avenue SW	98134	Not Determined				D-41
53234548	Wartsila Inc	1731 13th Avenue SW	98134	Not Determined				D-11
NA	Washington Federal Savings & Loan	SW Hudson & West Marginal Way	98106	1924049004	Surplus Items Inc.	27.71 a, 1,207,186 sq ft	None	33
59298453	Washington Tank Corp	2745 11th Avenue SW	98134	Not Determined				D-21

Table C-2
Property Information for Facilities in the Duwamish West CSO Basin with Ecology Facility/Site Identification Numbers

Facility/ Site ID	Facility Name	Facility Address	Zip Code	Parcel(s) & Alternate Addresses	Property Owner	Acreage (acres, sq ft)	Buildings (year built, sq ft)	Map ID[1]
3858982	West Seattle Estates LLC	4699 15th Avenue SW	98106	2840200165 2840200170 2840200175 2840200180 2840200185 2840200190 2840200195 2840200200 2840200205 2840200210 2840200215 2840200220 2840200225 2840200230 2840200235 2840200240 2840200055 2840200050 2840200015 2840200005 2840200245 2840200250 2840200255 2840200260 2840200265 2840200270 2840200275 2840200280 2840200285 2840200290 2840200295	West Seattle Estates	0165: 0.06 a, 2,500 sq ft 0170: 0.06 a, 2,500 sq ft 0175: 0.06 a, 2,500 sq ft 0180: 0.06 a, 2,500 sq ft 0185: 0.06 a, 2,500 sq ft 0190: 0.06 a, 2,500 sq ft 0195: 0.06 a, 2,500 sq ft 0200: 0.06 a, 2,500 sq ft 0205: 0.06 a, 2,500 sq ft 0210: 0.06 a, 2,500 sq ft 0215: 0.06 a, 2,500 sq ft 0220: 0.06 a, 2,500 sq ft 0225: 0.06 a, 2,500 sq ft 0230: 0.06 a, 2,500 sq ft 0235: 0.06 a, 2,500 sq ft 0240: 0.06 a, 2,500 sq ft 0050: 0.06 a, 2,500 sq ft 0055: 0.06 a, 2,500 sq ft 0015: 0.11 a, 5,000 sq ft 0005: 0.11 a, 5,000 sq ft 0245: 0.06 a, 2,500 sq ft 0250: 0.06 a, 2,500 sq ft 0255: 0.06 a, 2,500 sq ft 0260: 0.06 a, 2,500 sq ft 0265: 0.06 a, 2,500 sq ft 0270: 0.06 a, 2,500 sq ft 0275: 0.06 a, 2,500 sq ft 0280: 0.06 a, 2,500 sq ft 0285: 0.06 a, 2,500 sq ft 0290: 0.06 a, 2,500 sq ft 0295: 0.06 a, 2,500 sq ft	None	23
14517	West Seattle Radiator Service W Marginal Way	4101 West Marginal Way SW, A3	98106	7547800615: 4103 West Marginal Way SW 7666703805: 4005 West Marginal Way SW 7547800565: 4101 West Marginal Way SW 7547800575: 4101 West Marginal Way SW 7547800585: 4101 West Marginal Way SW	BBLL LLC	0615: 0.34 a, 15,010 sq ft 3805: 0,08 a, 3,621 sq ft 0565: 0.17 a, 7,571 sq ft 0575: 0.08 a, 3,358 sq ft 0585: 0.19 a, 8,417 sq ft	0615: B-1 (2002, 11,646 sq ft) 0615: B-2 (2001, 8,660 sq ft)	14
2981502	West Seattle Recycling Center	3881 16th Avenue SW	98106	7547300666	Jonathan Howe	0.47 a, 20,620 sq ft	B-1 (1982, 6,750 sq ft)	6
57193311	West Waterway Terminals	3518 West Marginal Way SW	98106	7666703985: 3546 West Marginal Way SW 7666703990 7666703967: 3518 West Marginal Way SW	ITB Holding Company L L C	3985: 1.69 a, 73,499 sq ft 3990: 0.84 a, 36,649 sq ft 3967: 2.88 a, 125,510 sq ft	3985: B-1 (1975, 66,672 sq ft) 3985: B-2 (1965, 1,536 sq ft) 3967: B-1 (1966, 95,836 sq ft)	D-69
2999235	Westbridge Building	4201 West Marginal Way SW	98106	1824049020: 4201 West Marginal Way SW	City of Seattle Parks Department	9020: 5.04 a, 219,450 sq ft	B-1 (1955, 113,780 sq ft)	16
2039	Weyerhaeuser Lab	3233 11th Avenue SW	98134	Not Determined				D-42
1916	Wheelchairs Plus Inc	4101 West Marginal Way SW, A2	98106	7547800615: 4103 West Marginal Way SW 7666703805: 4005 West Marginal Way SW 7547800565: 4101 West Marginal Way SW 7547800575: 4101 West Marginal Way SW 7547800585: 4101 West Marginal Way SW	BBLL LLC	0615: 0.34 a, 15,010 sq ft 3805: 0.08 a, 3,621 sq ft 0565: 0.17 a, 7,571 sq ft 0575: 0.08 a, 3,358 sq ft 0585: 0.19 a, 8,417 sq ft	0615: B-1 (2002, 11,646 sq ft) 0615: B-2 (2001, 8,660 sq ft)	14
2324876	Wilhelmsen Ship Services	1721 13th Avenue SW	98134	Not Determined				D-6

1 - See Appendix C, Figure C-1
Ecology - Washington State Department of Ecology
sq ft - square feet
a - acres

Source Control Areas
- Harbor Island
- RM 0.0-0.1 East (Spokane Street to Ash Grove Cement)
- RM 1.0-1.3 West (Kellogg Island to Lafarge)
- RM 1.3-1.6 West (Glacier Bay)
- RM 1.3-1.6 West (Glacier Bay) & RM 1.6-2.1 West (Terminal 115)

Table C-3
Facilities in the Duwamish West CSO Basin with Active EPA Identification Numbers

Facility/ Site ID	Facility Name	Facility Address	Zip	EPA ID	Date	HWG	HWM	HWP	Tier 2	TRI	Map ID[1]
88255195	Alaska Marine Lines 5615 W Marginal Way	5615 West Marginal Way SW	98106	WAD991281809	12/31/03		●				D-85
3532383	Alaska Railroad Corp	1140 SW Massachusetts Street	98134	WAH000023994	12/31/05		●				D-1
2034	Asahipen America Inc	1128 SW Spokane Street	98134	WAD080898984	TRI 1/1/89 Tier 2 1/1/87	●			●	●	D-73
4091	BASF at United Motor Freight	3800 West Marginal Way SW, Bldg 3	98106	WAH000039153	8/12/11	●					1
10931	Bobs Boats	3800 West Marginal Way SW, Bldg 4	98106	WAH000037353	10/13/10	●					1
2024	BP West Coast Products	1652 SW Lander Street	98134	WAD009590779	TRI 1/1/98 HWP 1/1/92 Tier 2 1/1/88 HWG 8/18/80	●		●	●	●	D-36
2185	Central Painting	4749 West Marginal Way SW	98106	WAD002837136	1/1/93			●			24
41953656	Chemithon Corp	5430 West Marginal Way SW	98106	WAD009244898	Tier 2 1/1/88 HWG 8/16/85	●			●		D-84
11384881	Clean Sound Cooperative Harbor Island Sh	2406 13th Avenue SW	98134	WA0000463091	2/6/95	●					D-20
22662567	Crowley Marine Services Inc	1100 SW Massachusetts Street	98134	WAD008958027	12/31/03		●				D-4
2164	Crowley Marine Services Pier 17	1102 SW Massachusetts Street	98134	WAD008034191	HWP 1/1/95 HWG 12/7/84	●		●			D-3
2071	Duwamish Shipyard, Inc.	5658 West Marginal Way SW	98106	WAD009244997	1/1/97					●	D-86
1378425	Equilon Seattle Distribution Terminal	2555A 13th Avenue SW	98134	CRK000051190	9/15/03				●		D-29
83317575	Evergreen Trails	4500 West Marginal Way SW	98106	WAD988522488	1/1/97				●		20
13266447	Fisher Mills	3235 16th Avenue SW	98134	WAD059321943	1/1/91				●		D-56
94648691	General Construction Co Seattle Site	3838 West Marginal Way SW	98106	WAD982658445	3/10/09				●		3
2035	General Transport Co 13th Ave SW	2937 13th Avenue SW	98134	WAD098556129	5/20/87	●					D-46
23881883	Glacier Northwest Inc	5900 West Marginal Way SW	98106	WAD151474368	1/1/90				●		D-89
2302559	Glacier Northwest, Inc. Seattle	3838 West Marginal Way SW	98124	CRK000057980	9/15/03				●		3
89139472	Glacier NW Reichhold MTCA	5904-5906 West Marginal Way SW	98111	WAR000006221	12/31/03		●				D-87
88394523	Kinder Morgan Liquids Terminals LLC	2720 13th Avenue SW	98134	WAD000643080	HWP 1/1/92 Tier 2 1/1/88 HWG 8/15/80	●		●	●		D-23
2132	Lafarge North America Inc Seattle	5400 West Marginal Way SW	98106	WAD041580176	HWP 1/1/03 TRI 1/1/92 Tier 2 1/1/91			●	●	●	D-82
30965651	Manning St Waste	11th Avenue SW & SW Manning Street	98134	WAD988510509	8/19/92	●					D-72
5568964	Meltec Division of Young Corporation	3444 13th Avenue SW	98134	WAD988477493	1/1/91				●		D-65
14736531	Mono Industrial Roofing	1112 SW Spokane Street	98134	WAD988475950	8/2/90	●					D-78
2026	Non Ferrous Metals Inc	2905 13th Avenue SW	98134	CRK000039480	1/1/94					●	
2022	Olympic Pipe Line Co Harbor Island	2444 13th Avenue SW	98134	WAD000641738	12/31/08		●				D-22
2177	Port of Seattle N Terminal 115	6000 West Marginal Way SW	98106	WAH000031146 CRK000007910	5/25/07	●					D-88
74783572	Rainier Petroleum	1711 13th Avenue SW	98134	WAD988498069	1/1/88				●		D-8
49669357	Seaport Petroleum	2921 13th Avenue SW	98134	WAD981769003	1/1/96				●		D-43
48322618	Seattle City Eng Dept 16th Ave S	East Side 16th Avenue SW & North of SW Lander Street	98134	WAD988474441	6/22/90	●					D-37
59252684	Seattle Parks and Recreation Westbridge Facility	4209 West Marginal Way SW	98106	WAH000019059	HWG 8/23/02 HWP 1/1/95	●		●			16
71252794	Seattle Port Term 18	2400 11th Avenue SW Site B	98134	WAD988488409	12/1/10	●					D-5
79222474	Seattle Port Term 18F	3236 16th Avenue SW	98134	WAD988501490	12/31/03		●				D-54
66711778	Seattle Port Terminal 105	4260 West Marginal Way SW	98106	WAD980836951	12/31/03		●				17

Table C-3
Facilities in the Duwamish West CSO Basin with Active EPA Identification Numbers

Facility/ Site ID	Facility Name	Facility Address	Zip	EPA ID	Date	HWG	HWM	HWP	Tier 2	TRI	Map ID[1]
7811383	Seattle Port Terminal 18D	2900 11th Avenue SW Terminal 18D	98134	WAD988519237	12/31/03		●				D-28
79121654	Seattle Public Utilities Hbr Is Otfl	13th Avenue SW & SW Florida Street	98134	WAH000017566	4/1/06	●					D-15
2030	Shell Oil Product Seattle Terminal	2555 13th Avenue SW	98134	WAD001684588	HWP 1/1/91 Tier 2 1/1/87 TRI 1/1/87 HWG 8/18/80	●		●	●	●	D-26
13675348	Stevedoring Svcs of America	1050 SW Spokane Street	98134	WAD988514394	12/31/03		●				D-13
2031	Todd Pacific Shipyards	1801 16th Avenue SW	98134	WAD009258468	HWP 1/1/91 TRI 1/1/89 Tier 2 1/1/87 TRI 1/1/87 HWG 8/11/80	●		●	●	●	D-12
89431534	United Motor Freight	3800 West Marginal Way SW	98106	WAD988507620	12/31/05		●				1
2324876	Wilhelmsen Ship Services	1721 13th Avenue SW	98134	WAH000033891	10/20/08	●					D-6

1 - See Appendix C, Figure C-1
EPA - U.S. Environmental Protection Agency
HWG - Facilities that generate any quantity of hazardous waste
HWM - Facilities that are required to have a RCRA Site ID# but who do not generate and/or manage hazardous waste (XQG generator status). This includes transporters, used oil recyclers, and dangerous waste fuel marketers and burners.
HWP - Facilities that report under Section 313 of the Emergency Planning/Community Right-To-Know Act or that generate more than 2,640 pounds of hazardous waste per year.
Tier 2 - Businesses that store 10,000 pounds or more of a hazardous chemical or 500 pounds or less, depending on the chemical, of an extremely hazardous chemical at any time must report annually.
TRI - Facilities in specific industries that manufacture, process or use more than the threshold amount of one or more of 600 listed toxic chemicals.

Source Control Areas

	Harbor Island
	RM 1.0-1.3 West (Kellogg Island to Lafarge)
	RM 1.3-1.6 West (Glacier Bay)
	RM 1.3-1.6 West (Glacier Bay) & RM 1.6-2.1 West (Terminal 115)

Table C-4
Facilities within the Duwamish West CSO Basin
Listed on the Ecology Confirmed or Suspected Contaminated Site List

Facility/ Site ID	Facility Name	Facility Address	Zip	Soil	Groundwater	Surface Water	Air	Sediment	Map ID[1]
2034	Asahipen America Inc	1128 SW Spokane Street	98134	*Suspected* Non-Halogenated Solvents	*Suspected* Non-Halogenated Solvents				D-73
2024	BP West Coast Products	1652 SW Lander Street	98134	*Suspected* Base/Neutral Organics Halogenated Organics Metals-Priority Pollutants Metals-Other PCBs Pesticides PAHs Conventional Contaminants-Inorganic *Confirmed* Petroleum Products	*Suspected* Base/Neutral Organics Halogenated Organics Metals-Priority Pollutants Metals-Other PCBs Pesticides PAHs Conventional Contaminants-Inorganic *Confirmed* Petroleum Products	*Suspected* Base/Neutral Organics Halogenated Organics Metals-Priority Pollutants Metals-Other PCBs Pesticides PAHs *Confirmed* Petroleum Products		*Suspected* Petroleum Products *Confirmed* PCBs Tributyl tin	D-36
31119678	Brys Auto Wrecking	4025 West Marginal Way SW	98106	*Confirmed* Metals-Priority Pollutants Petroleum Products	*Suspected* Metals-Priority Pollutants Petroleum Products		*Suspected* Metals-Priority Pollutants Petroleum Products	*Suspected* Metals-Priority Pollutants Petroleum Products	8
2185	Central Painting	4749 West Marginal Way SW	98106	*Remediated* Metals-Priority Pollutants Non-Halogenated Solvents	*Confirmed* Halogenated Organics				24
2112	Crosby & Overton Inc, 13th SW	3406 13th Avenue SW	98134	*Suspected* Halogenated Organics					D-62
2164	Crowley Marine Services Pier 17	1102 SW Massachusetts Street	98134	*Suspected* Petroleum Products		*Suspected* Petroleum Products			D-3
2071	Duwamish Shipyard, Inc.	5658 West Marginal Way SW	98106	*Confirmed* Base/Neutral Organics Petroleum Products Non-Halogenated Solvents PAHs *Remediated* Metals-Priority Pollutants	*Confirmed* Metals-Priority Pollutants PCBs Petroleum Products Non-Halogenated Solvents PAHs	*Suspected* Petroleum Products		*Suspected* Base/Neutral Organics Halogenated Organics Metals-Other Pesticides Petroleum Products Non-Halogenated Solvents *Confirmed* Metals-Priority Pollutants PAHs	D-86
2035	General Transport Co 13th Ave SW	2937 13th Avenue SW	98134	*Suspected* Halogenated Organics Metals-Priority Pollutants PCBs Petroleum Products Non-Halogenated Solvents	*Suspected* Halogenated Organics Metals-Priority Pollutants PCBs Petroleum Products Non-Halogenated Solvents				D-46
23881883	Glacier Northwest Inc	5900 West Marginal Way SW	98106	*Confirmed* Metals-Priority Pollutants Petroleum Products Phenolic Compounds Arsenic	*Confirmed* Metals-Priority Pollutants Phenolic Compounds Arsenic *Below Cleanup Levels* Halogenated Organics Non-Halogenated Solvents PAHs	*Confirmed* Phenolic Compounds Arsenic *Below Cleanup Levels* Metals-Priority Pollutants			D-89
2033	Industrial Office Complex	3400 11th Avenue SW	98134	*Suspected* Halogenated Organics Pesticides Conventional Contaminants, Inorganic	*Suspected* Halogenated Organics Pesticides Conventional Contaminants, Inorganic	*Suspected* Halogenated Organics Pesticides Conventional Contaminants, Inorganic	*Suspected* Halogenated Organics Pesticides Conventional Contaminants, Inorganic	*Suspected* Halogenated Organics Pesticides Conventional Contaminants, Inorganic *Confirmed* PCBs Tributyl Tin	D-70

Table C-4
Facilities within the Duwamish West CSO Basin
Listed on the Ecology Confirmed or Suspected Contaminated Site List

Facility/ Site ID	Facility Name	Facility Address	Zip	Soil	Groundwater	Surface Water	Air	Sediment	Map ID[1]
88394523	Kinder Morgan Liquids Terminals LLC	2720 13th Avenue SW	98134	*Suspected* Halogenated Organics Metals-Priority Pollutants Metals-Other PCBs Pesticides PAHs Conventional Contaminants-Organic & Inorganic *Confirmed* Petroleum Products	*Suspected* Base/Neutral Organics Halogenated Organics Metals-Priority Pollutants Metals-Other PCBs Pesticides PAHs Conventional Contaminants-Inorganic *Confirmed* Petroleum Products	*Suspected* Base/Neutral Organics Halogenated Organics Metals-Priority Pollutants Metals-Other PCBs Pesticides Petroleum Products PAHs			D-23
2132	Lafarge North America Inc Seattle	5400 West Marginal Way SW	98106	*Suspected* Halogenated Organics					D-82
2036	Lockheed Shipbldg Co Yard 1	2929 16th Avenue SW	98134	*Confirmed* Metals-Priority Pollutants PCBs Petroleum Products PAHs	*Suspected* Halogenated Organics *Confirmed* Metals-Priority Pollutants Petroleum Products	*Suspected* Halogenated Organics Petroleum Products		*Suspected* Pesticides Phenolic Compounds Non-Halogenated Solvents Conventional Contaminants-Organic & Inorganic *Confirmed* Metals-Priority Pollutants PCBs Petroleum Products PAHs Tributyl Tin	D-44
2026	Non Ferrous Metals Inc	2905 13th Avenue SW	98134	*Confirmed* Metals-Priority Pollutants PCBs	*Suspected* Metals-Priority Pollutants PCBs	*Suspected* Metals-Priority Pollutants PCBs			
2022	Olympic Pipe Line Co Harbor Island	2444 13th Avenue SW	98134		*Suspected* Petroleum Products				D-22
9581551	Ortega Property	5235 18th Avenue SW	98106	*Confirmed* Petroleum Products	*Suspected* Petroleum Products				34
2023	Pacific Molasses Co PM AG Products	3200 11th Avenue SW	98134	*Suspected* Metals-Priority Pollutants Metals-Other Corrosive Wastes Conventional Contaminants, Organic	*Suspected* Metals-Priority Pollutants Metals-Other Corrosive Wastes Conventional Contaminants, Organic	*Suspected* Metals-Priority Pollutants Metals-Other Corrosive Wastes Conventional Contaminants, Organic		*Suspected* Metals-Priority Pollutants Metals-Other Corrosive Wastes Conventional Contaminants, Organic	D-40
2177	Port of Seattle N Terminal 115	6000 West Marginal Way SW	98106	*Suspected* Metals-Priority Pollutants Metals-Other Corrosive Wastes	*Suspected* Metals-Priority Pollutants Metals-Other Corrosive Wastes			*Suspected* Metals-Priority Pollutants Metals-Other Corrosive Wastes	D-88
2038	Seafab Metal Surface Impoundment	2700 16th Avenue SW	98134	*Suspected* Metals-Priority Pollutants Corrosive Wastes	*Suspected* Metals-Priority Pollutants Corrosive Wastes				D-38
2037	Seafab Metals Co	2700 16th Avenue SW	98134	*Confirmed* Metals-Priority Pollutants	*Confirmed* Metals-Priority Pollutants				D-39
2027	Seattle Iron & Metals Main Yard	2955 11th Avenue SW	98134	*Confirmed* Halogenated Organics Metals-Priority Pollutants Metals-Other PCBs Pesticides Petroleum Products Phenolic Compounds Non-Halogenated Solvents PAHs	*Confirmed* Halogenated Organics Metals-Priority Pollutants Metals-Other PCBs Pesticides Petroleum Products Phenolic Compounds Non-Halogenated Solvents PAHs	*Confirmed* Halogenated Organics Metals-Priority Pollutants Metals-Other PCBs Pesticides Petroleum Products Phenolic Compounds Non-Halogenated Solvents PAHs	*Confirmed* Halogenated Organics Metals-Priority Pollutants Metals-Other PCBs Pesticides Petroleum Products Phenolic Compounds Non-Halogenated Solvents PAHs	*Confirmed* Halogenated Organics Metals-Priority Pollutants Metals-Other PCBs Pesticides Petroleum Products Phenolic Compounds Non-Halogenated Solvents PAHs	D-32

Table C-4
Facilities within the Duwamish West CSO Basin
Listed on the Ecology Confirmed or Suspected Contaminated Site List

Facility/ Site ID	Facility Name	Facility Address	Zip	Soil	Groundwater	Surface Water	Air	Sediment	Map ID[1]
2025	Seattle Port Leckenby Co	11th Avenue SW Terminal 18D	98134	*Suspected* Metals-Priority Pollutants Metals-Other PCBs					D-48
2093	Seattle Steel Industrial Fasteners	3800 West Marginal Way SW	98106	*Remediated* Petroleum Products					1
2030	Shell Oil Product Seattle Terminal	2555 13th Avenue SW	98134	*Suspected* Base/Neutral Organics Halogenated Organics Metals-Priority Pollutants Metals-Other PCBs Pesticides PAHs Conventional Contaminants-Inorganic *Confirmed* Petroleum Products	*Suspected* Base/Neutral Organics Halogenated Organics Metals-Priority Pollutants Metals-Other PCBs Pesticides PAHs Conventional Contaminants-Inorganic *Confirmed* Petroleum Products	*Suspected* Base/Neutral Organics Halogenated Organics Metals-Priority Pollutants Metals-Other PCBs Pesticides PAHs *Confirmed* Petroleum Products		*Suspected* Petrolum Products	D-26
2028	Shell Old Terminal 18 Port of Seattle	Terminal 18	98134	*Confirmed* Petroleum Products	*Confirmed* Petroleum Products	*Confirmed* Petroleum Products	*Confirmed* Petroleum Products	*Confirmed* Petroleum Products	D-47
2438	Strutz Property	4201 16th Avenue SW	98106	*Suspected* Metals-Priority Pollutants Conventional Contaminants, Inorganic *Below Cleanup Levels* Petroleum Products		*Suspected* Metals-Priority Pollutants Petroleum Products Conventional Contaminants, Inorganic	*Suspected* Metals-Priority Pollutants Petroleum Products Conventional Contaminants, Inorganic		15
2031	Todd Pacific Shipyards	1801 16th Avenue SW	98134			*Suspected* Metals-Priority Pollutants Petroleum Products Non-Halogenated Solvents Corrosive Wastes		*Suspected* Metals-Priority Pollutants Petroleum Products *Confirmed* PCBs Non-Halogenated Solvents Corrosive Wastes Tributyl Tin	D-12
2032	Value Plating & Metal POL	3207 11th Avenue SW	98134	*Suspected* Metals-Priority Pollutants Metals-Other Corrosive Wastes	*Suspected* Metals-Priority Pollutants Metals-Other Corrosive Wastes	*Suspected* Metals-Priority Pollutants Metals-Other Corrosive Wastes		*Suspected* Corrosive Wastes *Confirmed* Metals-Priority Pollutants Metals-Other	D-41
3858982	West Seattle Estates LLC	4699 15th Avenue SW	98106		*Confirmed* Metals-Priority Pollutants				23
2999235	Westbridge Building	4201 West Marginal Way SW	98106	*Confirmed* Petroleum Products PAHs	*Confirmed* Petroleum Products PAHs				16
2039	Weyerhaeuser Lab	3233 11th Avenue SW	98134	*Suspected* Halogenated Organics Metals-Priority Pollutants Pesticides Phenolic Compounds Non-Halogenated Solvents Dioxins PAHs	*Suspected* Halogenated Organics Metals-Priority Pollutants Pesticides Phenolic Compounds Non-Halogenated Solvents Dioxins PAHs			*Suspected* Halogenated Organics Metals-Priority Pollutants Pesticides Phenolic Compounds Non-Halogenated Solvents Dioxins PAHs	D-42

1 - See Appendix C, Figure C-1
Ecology - Washington State Department of Ecology
PAHs - Polynuclear aromatic hydrocarbons
PCBs - Polychlorinated biphenyls

Source Control Areas
- Harbor Island
- RM 1.0-1.3 West (Kellogg Island to Lafarge)
- RM 1.3-1.6 West (Glacier Bay)
- RM 1.3-1.6 West (Glacier Bay) & RM 1.6-2.1 West (Terminal 115)

Table C-5
Facilities in the Duwamish West CSO Basin with NPDES Permits

Facility/ Site ID	Facility Name	Facility Address	Zip	NPDES	Map ID[1]
13266447	Fisher Mills	3235 16th Avenue SW	98134	WAR001817	D-56
19450	Alaska Marine Lines Seattle Terminal	5502 & 5658 West Marginal Way SW	98106	WAR001365	D-83
2034	Asahipen America Inc	1128 SW Spokane Street	98134	SO3000089	D-73
2024	BP West Coast Products	1652 SW Lander Street	98134	WAR005603	D-36
41953656	Chemithon Corp	5430 West Marginal Way SW	98106	WAR000033	D-84
2164	Crowley Marine Services Pier 17	1102 SW Massachusetts Street	98134	SO3000954	D-3
1582	Duwamish Properties Shoreside Support HQ	910 SW Spokane Street	98134	WAR124667	D-68
2071	Duwamish Shipyard, Inc.	5658 West Marginal Way SW	98106	WA0030937	D-86
83317575	Evergreen Trails	4500 West Marginal Way SW	98106	WAR002966	20
17733	Fisher Flower Mill	3233 16th Avenue SW	98134	WAR125422	D-52
1184778	Fog Tite Inc	4819 West Marginal Way SW	98106	WAR000474	28
18553	General Recycling of Washington	4260 West Marginal Way SW	98106	WAR002341	17
2302559	Glacier Northwest, Inc. Seattle	3838 West Marginal Way SW	98124	WAR002227	3
539878	Harbor Island Marchine Works Inc.HARBOR ISLAN	3431 11th Avenue SW	98134	WAR000054	D-74
6681862	Island Tug & Barge Company	3546 West Marginal Way SW	98124	WAR004509	D-71
2132	Lafarge North America Inc Seattle	5400 West Marginal Way SW	98106	WA0002232	D-82
5568964	Meltec Division of Young Corporation	3444 13th Avenue SW	98134	WAR000639	D-65
7754458	Northwest Aggregates	3838 West Marginal Way SW	98106	WAR002227	3
4613117	Pacific Rendering Co	2926 16th Avenue SW	98134	WAU000476	D-45
74783572	Rainier Petroleum	1711 13th Avenue SW	98134	WAR002721	D-8
16808	Seattle Bulk Shipping LLC	3233 16th Avenue SW	98134	WAR125422	D-53
2030	Shell Oil Product Seattle Terminal	2555 13th Avenue SW	98134	WA0001791	D-26
13675348	Stevedoring Svcs of America	1050 SW Spokane Street	98134	WAR000467	D-13
2031	Todd Pacific Shipyards	1801 16th Avenue SW	98134	WA0002615	D-12

1 - See Appendix C, Figure C-1
NPDES - National Pollutant Discharge Elimination System

Source Control Areas

- Harbor Island
- RM 1.0-1.3 West (Kellogg Island to Lafarge)
- RM 1.3-1.6 West (Glacier Bay)
- Outside the Lower Duwamish Waterway

Table C-6
Facilities in the Duwamish West CSO Basin with KCIW Discharge Permits

Facility/ Site ID	Facility Name	Facility Address	Zip Code	KCIW Discharge Permit	Map ID[1]
19450	Alaska Marine Lines Seattle Terminal	5502 & 5658 West Marginal Way SW	98106	459-03	D-83
41953656	Chemithon Corp	5430 West Marginal Way SW	98106	4112-01	D-84
1184778	Fog Tite Inc	4819 West Marginal Way SW	98106	815-01	28
23881883	Glacier Northwest Inc	5900 West Marginal Way SW	98106	510-03	D-89
2132	Lafarge North America Inc Seattle	5400 West Marginal Way SW	98106	7831-02	D-82
10287	Encore Oils (formerly Pacific Rendering Co Inc)	4034 West Marginal Way SW	98106	7751-04	12
NA	Surplus Items, LLC (Washington Federal Savings & Loan Cement Kiln Dust site)	SW Hudson & West Marginal Way	98106	266-04	33

1 - See Appendix C, Figure C-1
KCIW - King County Industrial Waste

Source Control Areas

	RM 1.0-1.3 West (Kellogg Island to Lafarge)
	RM 1.3-1.6 West (Glacier Bay)

Table C-7
Properties in the Duwamish West CSO Basin with Leaking Underground Storage Tanks

Facility/ Site ID	Facility Name	Facility Address	Zip	UST Site ID	LUST Release ID	Media	Release Status	Release Status Change Date	Map ID[1]
85392668	Aiem Industrial Inc	1137 SW Hanford Street	98134	102194	370240	Soil	Reported Cleaned Up	1/25/90	D-50
88255195	Alaska Marine Lines 5615 W Marginal Way	5615 West Marginal Way SW	98106	100531	1971	GW, Soil	Reported Cleaned Up	6/1/95	D-85
2024	BP West Coast Products	1652 SW Lander Street	98134	8803	2196	GW, Soil	Cleanup Started	6/1/95	D-36
33133593	Cooper Elementary School	1901 SW Genesee Street	98106	459326	459334	Soil	Cleanup Started	6/12/98	D-80
2071	Duwamish Shipyard, Inc.	5658 West Marginal Way SW	98106	1429	548568	Soil	Cleanup Started	10/6/00	D-86
13266447	Fisher Mills	3235 16th Avenue SW	98134	11659	556632	GW, Soil	Cleanup Started	7/20/00	D-56
34525399	Harbor Marina Corporate Center	1001 SW Klickitat Way, Suite 101	98134	3023	498401	GW, Soil	Cleanup Started	1/21/97	D-79
88394523	Kinder Morgan Liquids Terminals LLC	2720 13th Avenue SW	98134	2960	1403	Soil	Cleanup Started	6/1/95	D-23
2132	Lafarge North America Inc Seattle	5400 West Marginal Way SW	98106	3835	1588	Soil	Cleanup Started	7/1/11	D-82
2036	Lockheed Shipbldg Co Yard 1	2929 16th Avenue SW	98134	940	2784	GW, Soil	Cleanup Started	7/1/11	D-44
66385168	Martin Surfacing	3420 13th Avenue SW	98134	8163	1954	Soil	Reported Cleaned Up	4/27/00	D-35
7754458	Northwest Aggregates	3838 West Marginal Way SW	98106	1951	5440	GW, Soil	Reported Cleaned Up	6/1/95	3
5735798	Pioneer Construction Materials Co	910 SW Spokane Street	98134	2212	1395	GW, Soil	Reported Cleaned Up	10/8/02	D-75
88471591	Seattle City Seaboard Lumber former site	4540 West Marginal Way SW	98106	97506	4158	Soil	Reported Cleaned Up	7/14/03	21
2027	Seattle Iron & Metals Main Yard	2955 11th Avenue SW	98134	10282	2539	Soil	Cleanup Started	6/1/95	D-32
71252794	Seattle Port Term 18	2400 11th Avenue SW Site B	98134	6265	2837 442471	Soil GW, Soil	Cleanup Started Cleanup Started	2/12/98 6/1/95	D-5
66711778	Seattle Port Terminal 105	4260 West Marginal Way SW	98106	6272	5156	Soil	Reported Cleaned Up	6/1/95	17
2030	Shell Oil Product Seattle Terminal	2555 13th Avenue SW	98134	97428	3819	GW, Soil	Reported Cleaned Up	6/1/95	D-26
62295932	Stevedoring Services of America UST 3927	3415 11th Avenue SW	98134	3927	1663	Soil	Reported Cleaned Up	6/1/95	D-58
2031	Todd Pacific Shipyards	1801 16th Avenue SW	98134	10348	2223	Soil	Reported Cleaned Up	3/31/03	D-12
2999235	Westbridge Building	4201 West Marginal Way SW	98106	334	2384	GW, Soil	Reported Cleaned Up	12/9/04	16

1 - See Appendix C, Figure C-1
LUST - Leaking Underground Storage Tank
UST - Underground Storage Tank
GW - Groundwater

Source Control Areas
- Harbor Island
- RM 0.0-0.1 East (Spokane Street to Ash Grove Cement)
- RM 1.0-1.3 West (Kellogg Island to Lafarge)
- RM 1.3-1.6 West (Glacier Bay)

Table C-8
Properties in the Duwamish West CSO Basin with Underground Storage Tanks

Facility/ Site ID	Facility Name	Facility Address	Zip	UST Site ID	Operational	Temporarily Closed	Removed	Closed-in-Place	Closure in Process	Change in Service	Exempt	Unknown	Map ID[1]
85392668	Aiem Industrial Inc	1137 SW Hanford Street	98134	102194			2						D-50
88255195	Alaska Marine Lines 5615 W Marginal Way	5615 West Marginal Way SW	98106	100531			2						D-85
2034	Asahipen America Inc	1128 SW Spokane Street	98134	8264			5	2			2		D-73
2024	BP West Coast Products	1652 SW Lander Street	98134	8803			3				3		D-36
45768719	Combustion Systems & Fabrication	3207 11th Avenue SW	98134	532846								1	D-76
33133593	Cooper Elementary School	1901 SW Genesee Street	98106	459326			3						D-80
2164	Crowley Marine Services Pier 17	1102 SW Massachusetts Street	98134	101392								1	D-3
21179265	Duroboat Manufacturing Company	1140 SW Dakota Street	98106	8242				1					12
2071	Duwamish Shipyard, Inc.	5658 West Marginal Way SW	98106	1429			4	1					D-86
83317575	Evergreen Trails	4500 West Marginal Way SW	98106	423465	2								20
13266447	Fisher Mills	3235 16th Avenue SW	98134	11659			2	6				2	D-56
82726738	Foreign Trade Zone 5, Building 85	13th Avenue SW	98134	584586								1	D-9
2035	General Transport Co 13th Ave SW	2937 13th Avenue SW	98134	10077			1	1					D-46
83315373	Global Diving	2763 13th Avenue SW	98134	532897								2	D-34
63542451	Harbor Island Service	3419 13th Avenue SW	98134	532810								1	D-64
34525399	Harbor Marina Corporate Center	1001 SW Klickitat Way, Suite 101	98134	3023			3						D-79
88394523	Kinder Morgan Liquids Terminals LLC	2720 13th Avenue SW	98134	2960	1		2			3		1	D-23
2132	Lafarge North America Inc Seattle	5400 West Marginal Way SW	98106	3835	2		3						D-82
2036	Lockheed Shipbldg Co Yard 1	2929 16th Avenue SW	98134	940			2					2	D-44
66385168	Martin Surfacing	3420 13th Avenue SW	98134	8163								2	D-35
2026	Non Ferrous Metals Inc	2905 13th Avenue SW	98134	6519				1					
7754458	Northwest Aggregates	3838 West Marginal Way SW	98106	1951			4						3
2023	Pacific Molasses Co PM AG Products SEA	3200 11th Avenue SW	98134	70				2					D-40
4613117	Pacific Rendering Co	2926 16th Avenue SW	98134	4962				1			1		D-45
5735798	Pioneer Construction Materials Co	910 SW Spokane Street	98134	2212			2						D-75
69852439	Port of Seattle	SW Florida Street	98134	532856								2	D-19
68272713	Port of Seattle 13th & Florida	13th Avenue SW & SW Florida Street	98134	584593				1					D-16
53456833	Puget Sound Tug & Barge Company	4620 West Marginal Way SW	98106	100914					2				32
2038	Seafab Metal Surface Impoundment	2700 16th Avenue SW	98134	532766								5	D-38
49669357	Seaport Petroleum	2921 13th Avenue SW	98134	532910								1	D-43
88471591	Seattle City Seaboard Lumber former site	4540 West Marginal Way SW	98106	97506				4					21
2027	Seattle Iron & Metals Main Yard	2955 11th Avenue SW	98134	10282			1		1				D-32
71252794	Seattle Port Term 18	2400 11th Avenue SW Site B	98134	6265			17						D-5
79222474	Seattle Port Term 18F	3236 16th Avenue SW	98134	532838								1	D-54
66711778	Seattle Port Terminal 105	4260 West Marginal Way SW	98106	6272			2						17
2093	Seattle Steel Industrial Fasteners	3800 West Marginal Way SW	98106	9771			2						1
2030	Shell Oil Product Seattle Terminal	2555 13th Avenue SW	98134	97428	1		7				2		D-26
62295932	Stevedoring Services of America UST 3927	3415 11th Avenue SW	98134	3927			8						D-58
72619293	System Supply Spokane Street	2324 SW Spokane Street	98106	500378								2	
2031	Todd Pacific Shipyards	1801 16th Avenue SW	98134	10348			3	3					D-12
56951146	Total Reclaim Inc Seattle	1131 SW Hanford Street	98134	532883								1	D-51
96168526	Vacant UST 2482 Marginal Way SW	4862 West Marginal Way SW	98106	2482				4					31
2999235	Westbridge Building	4201 West Marginal Way SW	98106	334			2				1		16

1 - See Appendix C, Figure C-1
UST - Underground Storage Tank

Source Control Areas

- Harbor Island
- RM 0.0-0.1 East (Spokane Street to Ash Grove Cement)
- RM 1.0-1.3 West (Kellogg Island to Lafarge)
- RM 1.3-1.6 West (Glacier Bay)
- Outside the Lower Duwamish Waterway

Table C-9
Facilities in the Duwamish West CSO Basin that are listed on the Ecology No Further Action List

Facility/ Site ID	Facility Name	Facility Address	Zip	NFA Date	NFA Type	Map ID[1]
2034	Asahipen America Inc	1128 SW Spokane Street	98134	8/15/06	NFA after assessment, IRAP or VCP	D-73
2112	Crosby & Overton Inc, 13th SW	3406 13th Avenue SW	98134	9/13/95	Cleaned up under prior authority[2]	D-62
2164	Crowley Marine Services Pier 17	1102 SW Massachusetts Street	98134	9/7/95	NFA after assessment, IRAP or VCP	D-3
39342192	Dakota Street	4101 West Marginal Way SW	98106	7/23/03	NFA after assessment, IRAP or VCP	14
2132	Lafarge North America Inc Seattle	5400 West Marginal Way SW	98106	5/25/89	Cleaned up under prior authority[2]	D-82
88471591	Seattle City Seaboard Lumber former site	4540 West Marginal Way SW	98106	10/3/11	NFA - Initial Investigation	20, 21
2093	Seattle Steel Industrial Fasteners	3800 West Marginal Way SW	98106	6/30/94	NFA after assessment, IRAP or VCP	1
2438	Strutz Property	4201 16th Avenue SW	98106	8/16/01	NFA after SHA	15
3858982	West Seattle Estates LLC	4699 15th Avenue SW	98106	7/6/09	NFA after assessment, IRAP or VCP	23

1 - See Appendix C, Figure C-1
2 - Cleaned up under prior statutory authority (predates Model Toxics Control Act)
Ecology - Washington State Department of Ecology
NFA - No Further Action
IRAP - Independent Remedial Action Program
VCP - Voluntary Cleanup Program
SHA - Site Hazard Assessment

Source Control Areas
Harbor Island
RM 1.0-1.3 West (Kellogg Island to Lafarge)

Table C-10
SIC and NAICS Codes for Facilities within the Duwamish West CSO Basin that are Listed in the Ecology Facility/Site Database

Facility/ Site ID	Facility Name	Address	Zip	SIC Code	SIC Description	NAICS Code	NAICS Description	Notes	Map ID[1]
93395933	17th SW Drums	5934 17th Avenue SW	98106	9999	Nonclassifiable Establishments	92411	Administration of Air & Water Resource & Solid Waste Management Programs		35
15472775	4800 W Marginal	4800 West Marginal Way SW	98106	9999	Nonclassifiable Establishments	NA	NA		20
20843	Active Environmental Inc 16th Ave	4001 16th Avenue SW	98106	NA	NA	23622	Commercial & Institutional Building Construction	Local Source Control 3/25/10	7
85392668	Aiem Industrial Inc	1137 SW Hanford Street	98134	1742 7699	Plastering, Drywall, and Installation Repair Services, NEC	238310 56179	Drywall And Insulation Contractors Other Services to Buildings and Dwellings		D-50
8547	Airclean Technologies Inc	4725 West Marginal Way SW	98106	NA	NA	NA	NA	Local Source Control 3/18/10	22
88255195	Alaska Marine Lines 5615 W Marginal Way	5615 West Marginal Way SW	98106	4491	Marine Cargo Handling	48831 48832 4883	Port and Harbor Operations Marine Cargo Handling Support Activities for Water Transportation		D-85
19450	Alaska Marine Lines Seattle Terminal	5502 & 5658 West Marginal Way SW	98106	4449	Water Transporation of Freight, NEC	483211	Inland Water Freight Transporation		D-83
3532383	Alaska Railroad Corp	1140 SW Massachusetts Street	98134	NA	NA	33651 488210	Railroad Rolling Stock Manufacturing Support Activities for Rail Transport		D-1
4488666	All State Industrial Marine	3417 13th Avenue SW	98134	9999	Nonclassifiable Establishments	48839	Other Support Activities for Water Transportation		D-63
11229	Aquatic Ent Inc	4101 West Marginal Way SW, Ste A6	98106	NA	NA	NA	NA	Local Source Control 3/11/10	14
2034	Asahipen America Inc	1128 SW Spokane Street	98134	2851 2851 5198	Paints and Allied Products Paints, Varnishes, Lacquers, Enamels Paints, Varnishes, and Supplies	32551	Paint and Coating Manufacturing	State Cleanup Site 1/1/1900-8/15/2006	D-73
1827143	BASF	2400 11th Avenue SW Terminal 18	98134	NA	NA	32561	Soap and Cleaning Compound Manufacturing		D-17
4091	BASF at United Motor Freight	3800 West Marginal Way SW, Bldg 3	98106						1
44375557	Bird Johnson Port	4100 West Marginal Way SW	98106	3499 8711	Fabricated Metal Products, NEC Engineering Services	541330 332999	Engineering Services All Other Miscellaneous Fabricated Metal Product Manufacturing		9
81228316	Block 401 Leckenby Cohen Bldg	3436 16th Avenue SW	98134	9999	Nonclassifiable Establishments	53119	Lessors of Other Real Esate Property		D-57
8573843	Bob Leonard Elliot Bay	1011 SW Klickitat Way	98134	NA	NA	NA	NA	Enforcement Spills 6/13/07	D-7
10931	Bobs Boats	3800 West Marginal Way SW, Bldg 4	98106	NA	NA	81149	Other Personal and Household Goods Retail		1
97821669	Boeing Company Terminal 105	4260 West Marginal Way SW	98106	3731 4449 4492	Ship Building & Repairing Water Transportation of Freight, NEC Towing and Tugboat Services	483211 488330 336411	Inland Water Freight Transportation Navigational Services to Shipping Aircarft Manufacturing		10
2024	BP West Coast Products	1652 SW Lander Street	98134	29 3533 5172 5541 241	Petroleum and Coal Products Oil and Gas Field Machinery Petroleum & Petroleum Products Wholesalers, except Bulk Stations & Terminals Gasoline Service Stations Dairy Farms	42271 424710 454312 45431 447190 4471 333132 1121	Petroleum Bulk Stations and Terminal Petroleum Bulk Stations and Terminal Liquefied Petroleum Gas Dealers Fuel Dealers Other Gasoline Stations Gasoline Stations Oil and Gas Field Machinery and Equipment Manufacturing Cattle Ranching and Farming	Sediments 3/2/00 Oil Facility Contingency Plan, Spills 7/1/91	D-36
31119678	Brys Auto Wrecking	4025 West Marginal Way SW	98106	9999	Nonclassifiable Establishments	42314	Motor Vehicle Parts (Used) Merchant Wholesalers	CSCSL 1/7/1998-6/12/2002 then VCP, returned to CSCSL following end of VCP. State Cleanup Site 2/9/06-present	8
NA	Burlington Northern Santa Fe Railroad Right-of-Way	None	98106	NA	NA	NA	NA		
2185	Central Painting	4749 West Marginal Way SW	98106	1721 9999	Painting, Paperhanging, Decorating Nonclassifiable Establishments	23731	High, Street, and Bridge Construction		24
41953656	Chemithon Corp	5430 West Marginal Way SW	98106	3599 5169 5999 8731 9999	Industrial Machinery except Electrical, NEC Chemicals & Allied Products, NEC Miscellaneous Retail Stores, NEC Commercial Physical & Biological Research Nonclassifiable Establishments	333298 42183 541710	All Other Industrial Machinery Manufacturing Industrial Machinery and Equipment Research and Development in the Physical Engineering, and Life Sciences		D-84
11384881	Clean Sound Cooperative Harbor Island Sh	2406 13th Avenue SW	98134	8699 7538	Membership Organizations, NEC	811111	General Automotive Repair		D-20

Table C-10
SIC and NAICS Codes for Facilities within the Duwamish West CSO Basin that are Listed in the Ecology Facility/Site Database

Facility/ Site ID	Facility Name	Address	Zip	SIC Code	SIC Description	NAICS Code	NAICS Description	Notes	Map ID[1]
NA	Cohesive Garage	4101 West Marginal Way SW	98106						14
45768719	Combustion Systems & Fabrication	3207 11th Avenue SW	98134	3519	Internal Combustion Engines, NEC	NA	NA		D-76
9688	Concrete Restoration Inc	4025 West Marginal Way SW	98106	NA	NA	NA	NA	Local Source Control 3/18/10	8
10412	Continental Van Lines	4501 West Marginal Way SW	98106	NA	NA	NA	NA	Local Source Control 3/17/10	19
33133593	Cooper Elementary School	1901 SW Genesee Street	98106	8211	Elementary and Secondary Schools	61111	Elementary and Secondary Schools		D-80
2112	Crosby & Overton Inc, 13th SW	3406 13th Avenue SW	98134	4953	Refuse Systems	NA	NA	State Cleanup Site end 9/13/95	D-62
22662567	Crowley Marine Services Inc	1100 SW Massachusetts Street	98134	NA	NA	483111 483113	Deep Sea Freight Transportation Coastal & Great Lakes Freight Transportation		D-4
24172765	Crowley Marine Services Inc Marginal Way	4154 West Marginal Way SW	98106	7699	Repair Services, NEC	483211	Inland Water Freight Transportation		17
2164	Crowley Marine Services Pier 17	1102 SW Massachusetts Street	98134	4492 5541	Towing and Tugboat Services Gasoline Service Stations	48833 4471 483113	Navigational Services to Shipping Gasoline Stations Coastal & Great Lakes Freight Transport		D-3
13586515	Crowley Marine Svc Inc Pier 15 1/2	1810 13th Avenue SW	98134	4449 4492	Water Transportation of Freight, NEC Towing and Tugboat Services	483113 483211 488330	Coastal & Great Lakes Freight Transport Inland Water Freight Transportation Navigational Services to Shipping		D-10
39342192	Dakota Street	4101 West Marginal Way SW	98106	5093 5983	Scrap and Waste Materials Fuel Oil Dealers	NA	NA		14
21179265	Duroboat Manufacturing Company	1140 SW Dakota Street	98106	9999	Nonclassifiable Establishments	NA	NA		12
1582	Duwamish Properties Shoreside Support HQ	910 SW Spokane Street	98134	1794	Excavation Work	NA	NA	Construction Stormwater Permit beginning 9/18/10	D-68
2071	Duwamish Shipyard, Inc.	5658 West Marginal Way SW	98106	3599 3731 3732	Industrial Machinery, NEC Ship Building & Repairing Boat Building & Repairing	336611	Ship Building and Repairing.	Enforcement, Toxics 9/15/10 Enforcemnt, Water Quality 9/29/04 Independent Cleanup, Toxics Sediments, Toxics	D-86
62678833	Ecolights Northwest	1141 SW Hanford Street	98134	5171	Petroleum Bulk Stations & Terminals	42474	Refrigeration Equipment & Supplies Merchant		D-49
1378425	Equilon Seattle Distribution Terminal	2555A 13th Avenue SW	98134	5171	Petroleum Bulk Stations & Terminals	NA	NA		D-29
6697	Evergreen Building Products LLC	4835 West Marginal Way SW	98106	NA	NA	NA	NA	Local Source Control 3/18/10	29
83317575	Evergreen Trails	4500 West Marginal Way SW	98106	NA	NA	NA	NA		20
18675	Ferguson Enterprises Inc.	4100 West Marginal Way SW	98106	NA	NA	NA	NA	Local Source Control 4/5/10	9
17733	Fisher Flower Mill	3233 16th Avenue SW	98134	4783 4789	Packing and Crating Transportation Services, NEC	NA	NA		D-52
13266447	Fisher Mills	3235 16th Avenue SW	98134	2041 4221	Flour & Other Grain Mill Products Farm Product Warehousing & Storage	311211 493130	Flour Milling Farm Product Warehousing & Storage		D-56
1184778	Fog Tite Inc	4819 West Marginal Way SW	98106	3272 3499	Concrete Products, NEC Fabricated Metal Products, NEC	32739	Other Concrete Product Manufacturing.	Local Source Control 3/24/09-4/29/10 Water Quality Enforcement 7/17/09	28
82726738	Foreign Trad Zone 5, Building 85	13th Avenue SW	98134	NA	NA	NA	NA		D-9
72321478	Fraser Inc	3801 West Marginal Place SW	98106	3731	Ship Building and Repairing	81149	Other Personal & Household Goods Repair		2
96957364	Frontier Foundations Inc	3221 13th Avenue SW	98134	9999	Nonclassifiable Establishments	23713	Power & Communication & Related Structures Construction		D-55
6869	General Biodiesel Inc	4034 West Marginal Way SW	98106	NA	NA	NA	NA	Urban Waters 5/20/09	12
8753555	General Construction	1801 16th Avenue SW	98134	NA	NA	NA	NA	Enforcement Spills 2/13/07	D-25
94648691	General Construction Co Seattle Site	3838 West Marginal Way SW	98106	1629	Heavy Construction, NEC	23499 238910	All Other Heavy Construction Site Preparation Contractors		3
18553	General Recycling of Washington	4260 West Marginal Way SW	98106	NA	NA	NA	NA		17
2035	General Transport Co 13th Ave SW	2937 13th Avenue SW	98134	29 4212	Petroleum and Coal Products Local Trucking, without Storage	48422	Specialized Freight Trucking (except used goods), Local		D-46
23881883	Glacier Northwest Inc	5900 West Marginal Way SW	98106	2491 28 29 5199	Wood Preserving Chemicals and Allied Products Petroleum and Coal Products Nondurable Goods, NEC	42132 42332 321114	Brick, Stone, and Related Construction Brick, Stone, and Related Construction Wood Preservation	Enforcement, Toxics 8/4/09 401CZM Project Site 10/27/04 NonEnforcement, SEA 10/19/04	D-89
2302559	Glacier Northwest, Inc. Seattle	3838 West Marginal Way SW	98124	NA	NA	NA	NA		3
89139472	Glacier NW Reichhold MTCA	5904-5906 West Marginal Way SW	98111	9999	Nonclassifiable Establishments	32731	Cement Manufacturing		D-87
NA	Global Diving & Salvage	3840 West Marginal Way SW	98106			NA	NA		4
83315373	Global Diving	2763 13th Avenue SW	98134	4493	Marinas	NA	NA		D-34
75577212	Gray Line of Seattle Marginal Way	4500 West Marginal Way SW	98106	4142	Bus Charter Service, Except Local	48551	Charter Bus Industry		20

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SIC and NAICS Codes for Facilities within the Duwamish West CSO Basin that are Listed in the Ecology Facility/Site Database

Facility/ Site ID	Facility Name	Address	Zip	SIC Code	SIC Description	NAICS Code	NAICS Description	Notes	Map ID[1]
2021	Harbor Island	Harbor Island	98134	2999 3341 3721	Petroleum & Coal Products Secondary Smelting & Refining of Nonferrous Metals Ship Building & Repairing	NA	NA	WAD980722839 - Superfund Site	D-33
64974285	Harbor Island Business Ctr	3400 13th Avenue SW	98134	9999	Nonclassifiable Establishments	NA	NA		D-61
539878	Harbor Island Marchine Works Inc.HARBOR ISLAI	3431 11th Avenue SW	98134	3599	Machinery except Electrical NEC	NA	NA	Local Source Control 12/8/08, 4/29/10	D-74
63542451	Harbor Island Service	3419 13th Avenue SW	98134	4493	Marinas	NA	NA		D-64
34525399	Harbor Marina Corporate Center	1001 SW Klickitat Way, Suite 101	98134	NA	NA	NA	NA		D-79
17035	Hardware Specialty Co	3419 11th Avenue SW	98134	NA	NA	NA	NA	Local Source Control 11/18/08, 4/29/10	D-66
16129	Heath Landscape Services Inc	4849 West Marginal Way SW	98106	NA	NA	NA	NA	Local Source Control 3/26/10	30
12698	Heathco Intl Inc	4033 16th Avenue SW, Ste B	98106	NA	NA	NA	NA	Local Source Control 4/13/10	11
76453385	HW Blackstock Co	4000 West Marginal Way SW	98106	9999 2452	Nonclassifiable Establishments Prefabricated Wood Buildings & Components	321992	Prefabricated Wood Building Manufacturing		10
2033	Industrial Office Complex	3400 11th Avenue SW	98134	NA	NA	NA	NA	Sediments	D-70
6681862	Island Tug & Barge Company	3546 West Marginal Way SW	98124	3731 4492	Ship Building & Repairing Towing & Tugboat Services	48833 212321	Navigational Services to Shipping Construction Sand & Gravel Mining	Enforcement Spills - 3/28/06 & 8/23/05	D-71
65161571	Jacob Stern Sons Inc	2900 11th Avenue SW	98134	9999	Nonclassifiable Establishments	311223	Other Oil Seed Processing		D-27
88394523	Kinder Morgan Liquids Terminals LLC	2720 13th Avenue SW	98134	4226 5171	Special Warehousing & Storage, NEC Petroleum Bulk Stations & Terminals	49311 49319 42471 4931	General Warehousing and Storage Other Warehousing and Storage Petroleum Bulk Stations and Terminals Warehousing & Storage	Enforcement Spills 8/20/10 Air Quality, Local Authority C_033_16002 1/1/07 Oil Facility Contingency Plan, Spills 7/1/91	D-23
2132	Lafarge North America Inc Seattle	5400 West Marginal Way SW	98106	3241	Cement Hydraulic	32731	Cement Manufacturing	Enforcement, Water Quality 9/4/09 NonEnforcement, Air Quality 8/23/07 Air Quality Operation Permit Source, Air Quality 1/1/77	D-82
2036	Lockheed Shipbldg Co Yard 1	2929 16th Avenue SW	98134	3731 9999	Ship Building & Repairing Nonclassifiable Establishments	336611	Ship Building and Repairing	Sediments, Toxics 3/20/00	D-44
42166484	Lynden Air Freight Inc	5615 West Marginal Way SW	98106	NA	NA	NA	NA		D-85
30965651	Manning St Waste	11th Avenue SW & SW Manning Street	98134	9999	Nonclassifiable Establishments	982411	Administration of Air & Water Resource & Solid Waste Management Programs		D-72
66385168	Martin Surfacing	3420 13th Avenue SW	98134	1794	Excavation Work	NA	NA		D-35
5568964	Meltec Division of Young Corporation	3444 13th Avenue SW	98134	3325	Steel Foundries NEC	33151	Ferrous Metal Foundries	NonEnforcement, Water Quality 5/21/10	D-65
NA	Metal Shorts	4101 West Marginal Way SW	98106	NA	NA	NA	NA		14
14736531	Mono Industrial Roofing	1112 SW Spokane Street	98134	1761	Roofing, Siding, & Sheet Metal Work	23839	Other Building Finishing Contractors		D-78
9627	New Finishes Inc W Marginal Way	4235 West Marginal Way SW	98106	NA	NA	NA	NA	Local Source Control 1/25/10	18
2026	Non Ferrous Metals Inc	2905 13th Avenue SW	98134	3341	Secondary Smelting & Refining of Nonferrous Metals	NA	NA		
7754458	Northwest Aggregates	3838 West Marginal Way SW	98106	1411 1442 1629	Dimension Stone Construction Sand & Gravel Heavy Construction, NEC	212311 212321	Dimension Stone Mining & Quarrying Construction Sand & Gravel Mining	LUST 9/8/94-6/1/95	3
14216312	Northwest Enviroservice Inc Seattle	2773 11th Avenue SW	98134	4789	Transportation Services, NEC	488999	All Other Support Activities for Transportation		D-24
2022	Olympic Pipe Line Co Harbor Island	2444 13th Avenue SW	98134	4613	Refined Petroleum Pipelines	48691	Pipeline Transportation of Refined Petroleum	Oil Facility Contingency Plan, Spills 3/3/08	D-22
14845	Olympic Tug and Barge	910 SW Spokane Street	98134	9999	Nonclassifiable Establishments	32739	Othe Concrete Product Manufacturing	Enforcement, Spills 6/21/10	D-77
9581551	Ortega Property	5235 18th Avenue SW	98106	NA	NA	NA	NA		34
2023	Pacific Molasses Co PM AG Products SEA	3200 11th Avenue SW	98134	2048	Prepared Feeds, NEC	NA	NA		D-40
4613117	Pacific Rendering Co	2926 16th Avenue SW	98134	2077	Animal and Marine Fats and Oils	311613	Rendering and Meat Byproduct Processing		D-45
10287	Pacific Rendering Co Inc	4034 West Marginal Way SW	98106	2869	Industrial Organic Chemicals	NA	NA	Local Source Control 4/11-4/29/10	12
23704	Pacifica Marine Inc	4233 West Marginal Way SW	98106	NA	NA	NA	NA	Local Source Control 3/11-4/29/10	18
24724	Penthouse Drapery 16th Ave	4033 16th Avenue SW, Ste A	98106	NA	NA	NA	NA	Local Source Control 8/2/10	11
5735798	Pioneer Construction Materials Co	910 SW Spokane Street	98134	NA	NA	NA	NA		D-75
69852439	Port of Seattle	SW Florida Street	98134	9199	General Government, NEC	NA	NA		D-19
68272713	Port of Seattle 13th & Florida	13th Avenue SW & SW Florida Street	98134	NA	NA	NA	NA		D-16
2460195	Port of Seattle 2720 13th Ave	2720 13th Avenue SW	98134	NA	NA	NA	NA	Enforcement Spills 9/30/05	D-30

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Facility/ Site ID	Facility Name	Address	Zip	SIC Code	SIC Description	NAICS Code	NAICS Description	Notes	Map ID[1]
2177	Port of Seattle N Terminal 115	6000 West Marginal Way SW	98106	3341 3411	Secondary Nonferrous Metals Metal Cans	238110 44419	Poured Concrete Foundation & Structures Other Building Material Dealers		D-88
9033844	Port of Seattle Pier 15 1/2	1124 SW Massachusetts Street	98134	NA	NA	NA	NA	401CZM Project Site, SEA, ID 200700497 11/5/07 NonEnforcement, SEA 11/5/07	D-2
26557446	Premier Pacific Seafoods	1011 SW Klickitat Way, Suite 100	98134	5146	Fish and Seafoods	42446	Fish & Seafood Merchant Wholesalers		D-59
53456833	Puget Sound Tug & Barge Company	4620 West Marginal Way SW	98106	NA	NA	NA	NA		32
74783572	Rainier Petroleum	1711 13th Avenue SW	98134	4225 5171	General Warehousing & Storage Petroleum Bulk Stations & Terminals	42471	Petroleum Bulk Stations and Terminals	Oil Facility Contingency Plan, Spills 7/1/91	D-8
23451	Raynproof Roofing	4117 16th Avenue SW	98106	NA	NA	NA	NA	Local Source Control 3/24/10	13
38575346	Rosa Environmental Geotechnical Lab LLC	1001 SW Klickitat Way, Suite 107	98134	8734	Testing Laboratories	54138	Testing Laboratories		D-67
2038	Seafab Metal Surface Impoundment	2700 16th Avenue SW	98134	3356	Rolling, Drawing, Extruding Nonferrous Metals	NA	NA		D-38
2037	Seafab Metals Co	2700 16th Avenue SW	98134	2819 3356	Industrial Inorganic Chemicals, NEC Rolling, Drawing, Extruding Nonferrous Metals	325131 331491	Inorganic Dye & Pigment Manufacturing Nonferrous Metal (except copper & aluminum) Rollling, Drawing & Extruding		D-39
49669357	Seaport Petroleum	2921 13th Avenue SW	98134	3549 5171	Metalworking Machinery, NEC Petroleum Bulk Stations & Terminals	42471 333518	Petroleum Bulk Stations & Terminals Other Metalworking Machinery Manufacturing		D-43
16808	Seattle Bulk Shipping LLC	3233 16th Avenue SW	98134	NA	NA	NA	NA	SW Permit 6/8/10	D-53
48322618	Seattle City Eng Dept 16th Ave S	East Side 16th Avenue SW & North of SW Land	98134	9199	General Government, NEC	92119	Other General Government Support		D-37
59252684	Seattle Parks and Recreation Westbridge Facility	4209 West Marginal Way SW	98106	NA	NA	71219	Nature Parks & Other Similar Institutions		16
88471591	Seattle City Seaboard Lumber former site	4540 West Marginal Way SW	98106	9999	Nonclassifiable Establishments	92512	Administration of Urban Planning & Community & Rural Development		21
2027	Seattle Iron & Metals Main Yard	2955 11th Avenue SW	98134	33 5093	Primary Metal Industries Scrap and Waste Materials	42393	Recyclable Material Merchant Wholesalers		D-32
2025	Seattle Port Leckenby Co	11th Avenue SW Terminal 18D	98134	NA	NA	NA	NA		D-48
71252794	Seattle Port Term 18	2400 11th Avenue SW Site B	98134	3711 4499 9199	Motor Vehicles and Car Bodies Water Transportation Services, NEC General Government, NEC	48831 921190	Port and Harbor Operations Other General Government Support	NonEnforcement, SEA 1/5/05 401CZM Project Site, SEA ID 200301315 1/8/04	D-5
79222474	Seattle Port Term 18F	3236 16th Avenue SW	98134	4412	Deep Sea Foreign Transport of Freight	483111	Deep Sea Freight Transportation		D-54
57949691	Seattle Port Terminal 102	1001 SW Klickitat Way	98134	NA	NA	NA	NA		
66711778	Seattle Port Terminal 105	4260 West Marginal Way SW	98106	4449 4491 9199	Water Transportation of Freight, NEC Marine Cargo Handling General Government, NEC	483211 4883 921190	Inland Water Freight Transportation Support Activites for Water Transportation Other General Government Support		17
7811383	Seattle Port Terminal 18D	2900 11th Avenue SW Terminal 18D	98134	4412	Deep Sea Foreign Transport of Freight	483111	Deep Sea Freight Transportation		D-28
79121654	Seattle Public Utilities Hbr Is Otfl	13th Avenue SW & SW Florida Street	98134	4941	Water Supply	22131	Water Supply and Irrigation Systems		D-15
41742472	Seattle Sch Dist Cooper Elementary	1801 SW Genesee Street	98106	NA	NA	61111	Elementary and Secondary Schools		D-81
2093	Seattle Steel Industrial Fasteners	3800 West Marginal Way SW	98106	34 6552	Fabricated Metal Products, Except Machinery & Transportation Equipment Subdividers and Developers, NEC	237210	Land Subdivison		1
2030	Shell Oil Product Seattle Terminal	2555 13th Avenue SW	98134	29 1794 2992 5171 5989	Petroleum Refining & Related Industries Excavation Work Lubricating Oils & Greases Petroleum Bulk Stations & Terminals Fuel Dealers, NEC	42271 424710 45431 454312 324191 454319	Petroleum Bulk Stations & Terminals Petroleum Bulk Stations & Terminals Fuel Dealers Liquified Petroleum Gas (Bottled Gas) Dealers Petroleum Lubricating Oil & Grease Manufacturing Other Fuel Dealers	Enforcement Spills 4/17/08 Air Qual Local ID C_033_16003 1/1/07 Oil Facility Contingency Plan, Spills 7/1/91	D-26
2028	Shell Old Terminal 18 Port of Seattle	Terminal 18	98134	29	Petroleum Refining & Related Industries	NA	NA		D-47
62295932	Stevedoring Services of America UST 3927	3415 11th Avenue SW	98134	NA	NA	NA	NA		D-58
13675348	Stevedoring Svcs of America	1050 SW Spokane Street	98134	4412 4424 4491	Deep Sea Foreign Transporation of Freight Deep Sea Domestic Transportation of Freight Marine Cargo Handling	483111 483113 4883	Deep Sea Freight Transportation Coastal & Great Lakes Freight Transportation Support Activities for Water Transportation		D-13

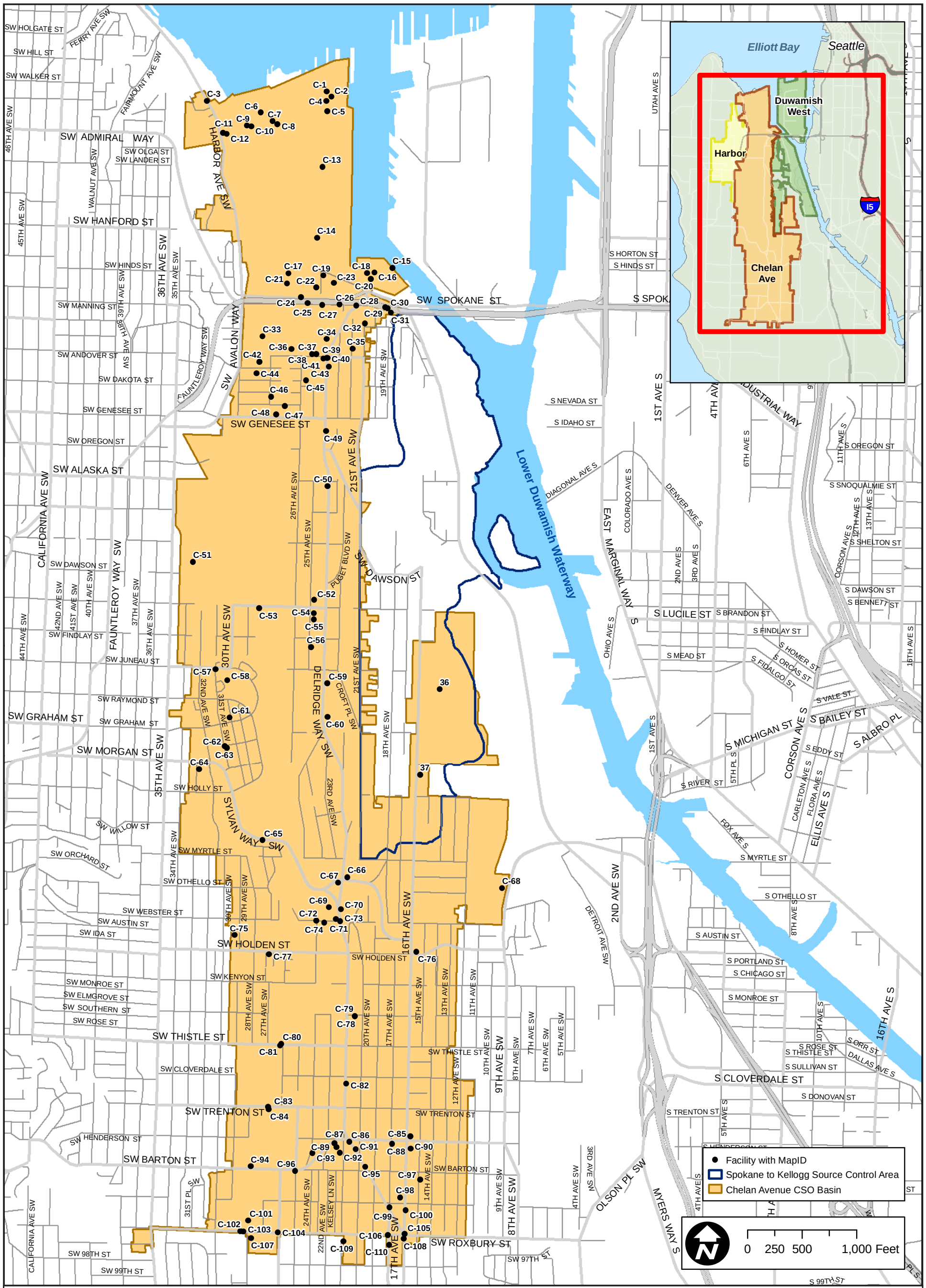
Table C-10
SIC and NAICS Codes for Facilities within the Duwamish West CSO Basin that are Listed in the Ecology Facility/Site Database

Facility/ Site ID	Facility Name	Address	Zip	SIC Code	SIC Description	NAICS Code	NAICS Description	Notes	Map ID[1]
2438	Strutz Property	4201 16th Avenue SW	98106	753 88	Automotive Repair Shops Private Households	NA	NA	State Cleanup Site end 10/31/01	15
72619293	System Supply Spokane Street	2324 SW Spokane Street	98106	NA	NA	NA	NA		
NA	Terminal 103	3838 West Marginal Way SW	98106	NA	NA	NA	NA		3
NA	Terminal 107	5402 West Marginal Way SW	98106	NA	NA	NA	NA		32
69675738	Tesoro Petroleum Co	2720 13th Avenue SW Tank 43	98134	5171	Petroleum Bulk Stations & Terminals	NA	NA		D-31
3916283	ThermoRetec Consulting Corporation	1011 SW Klickitat Way, Suite 207	98134	8711 8731 8734	Engineering Services Commercial Physical Research Testing Laboratories	54133	Engineering Services		D-60
2031	Todd Pacific Shipyards	1801 16th Avenue SW	98134	3731	Ship Building and Repairing	336611	Ship Building and Repairing	Enforcement, Water Quality 4/14/10 Air Quality ID C_033_12539 1/1/07 Enforcement Spills 12/22/06 Sediments	D-12
56951146	Total Reclain Inc Seattle	1131 SW Hanford Street	98134	5093	Scrap and Waste Materials	42393	Recyclable Material Merchant Wholesalers		D-51
3208182	Trident Seafood FV Seattle Enterprise	1801 16th Avenue SW	98134	NA	NA	NA	NA	Enforcement Spills 10/28/08	D-14
20891	Tryg Winquist Construction Co	3839 West Marginal Way SW	98106	NA	NA	NA	NA	Local Source Control 3/3/09-4/29/10	5
89431534	United Motor Freight	3800 West Marginal Way SW	98106	4214	Local Trucking with Storage	48411	General Freight Trucking, Local		1
12426841	US EPA Harbor Island Superfund Site	Entirety of Harbor Island	98134	2911 4412	Petroleum Refining Deep Sea Foreign Transport of Freight	32411	Petroleum Refineries		D-18
96168526	Vacant UST 2482 Marginal Way SW	None		NA	NA	NA	NA		31
2032	Value Plating & Metal POL	3207 11th Avenue SW	98134	3471 9999	Electoplating, Plating, Polishing, Anodizing & Coloring Nonclassifiable Establishments	332813	Electroplating, Plating, Polishing, Anodizing, & Coloring		D-41
53234548	Wartsila Inc	1731 13th Avenue SW	98134	7538	General Automotive Repair Shops	811111	General Automotive Repair		D-11
NA	Washington Federal Savings & Loan	None		NA	NA	NA	NA		33
59298453	Washington Tank Corp	2745 11th Avenue SW	98134	9999	Nonclassifiable Establishments	336992	Military Armored Vehicle, Tank and Tank Component Manufacturing		D-21
3858982	West Seattle Estates LLC	4699 15th Avenue SW	98106	NA	NA	NA	NA		23
14517	West Seattle Radiator Service W Marginal Way	4101 West Marginal Way SW, A3	98106	NA	NA	NA	NA	Local Source Control 3/25/10	14
2981502	West Seattle Recycling Center	3881 16th Avenue SW	98106	NA	NA	NA	NA	HAZWASTE Urban Waters 4/13/10 W2R Energy Recovery 3/1/96	6
57193311	West Waterway Terminals	3518 West Marginal Way SW	98106	9999	Nonclassifiable Establishments	48831	Port and Harbor Operations		D-69
2999235	Westbridge Building	4201 West Marginal Way SW	98106	9999	Nonclassifiable Establishments	52211	Commercial Banking	State Cleanup Site 4/14/99-10/22/99	16
2039	Weyerhaeuser Lab	3233 11th Avenue SW	98134	NA	NA	NA	NA	Superfund	D-42
1916	Wheelchairs Plus Inc	4101 West Marginal Way SW, A2	98106	NA	NA	NA	NA	Local Source Control 4/8/10	14
2324876	Wilhelmsen Ship Services	1721 13th Avenue SW	98134	NA	NA	493110	General Warehousing and Storage		D-6

1 - See Appendix C, Figure C-1
Ecology - Washington State Department of Ecology
SIC - U.S. Standard Industrial Classification
NAICS - North American Industry Classification System
NA - Codes and descriptions are not listed in the Ecology Facility/Site Database
NEC - Not Elsewhere Classified

Source Control Areas
- Harbor Island
- RM 0.0-0.1 East (Spokane Street to Ash Grove Cement)
- RM 1.0-1.3 West (Kellogg Island to Lafarge)
- RM 1.3-1.6 West (Glacier Bay)
- RM 1.3-1.6 West (Glacier Bay) & RM 1.6-2.1 West (Terminal 115)

Appendix D
Chelan CSO Basin Map and Facilities



DEPARTMENT OF ECOLOGY
State of Washington

Figure D. Chelan Avenue CSO Basin

SAIC
From Science to Solutions

Table D-1
Facilities within the Chelan CSO Basin that are Listed in the Ecology Facility/Site Database

Facility/ Site ID	Facility Name	Alternate Name(s)	Facility Address	Zip Code	Active EPA ID No.	Ecology CSCSL	NPDES Permit	KCIW Discharge Permit	LUST	UST	Ecology NFA	Map ID[1]
3123614	21st Ave W Seattle	None	3602 21st Avenue W	98199								C-32
41538262	28th Ave SW	None	4209 28th Avenue SW	98106								C-46
5589	7533 29th Ave SW Site	None	7533 29th Avenue SW	98126		●						C-75
76433239	Airtouch Cellular Seattle MTSO	United States Seafoods LLC	6901 West Marginal Way SW	98106								C-25
35245957	Airtouch Riverside	None	3433 West Marginal Way SW	98106	●							C-28
7684394	Albertos Fiberglass Boat Repair Inc	None	4266 20th Avenue SW	98119								C-47
21777173	American President Lines Ltd	Amway Corp	3443 West Marginal Way SW	98106	●			●				C-23
44442952	Anacomp Inc Andover	Anacomp Inc	2414 SW Andover Street Building E, Suite 100	98106								C-40
6723598	AT&T Seattle 27th	None	9455 27th Avenue SW	98126								C-101
8742315	AT&T Yancy Street	None	2806 SW Yancy Street	98126								C-44
63147939	Avalon VW Auto Sales Inc	None	9420 16th Avenue SW	98106								C-100
86294678	Boeing South Park Henderson	Boeing South Park	1600 S Henderson Street	98106						●		C-88
63938375	Chevron Service Station 21-1551	Rocky's Shell/Taco Bell, Rocky's Texaco Taco Bell, Seattle City Used Oil Collect Delridge, Shell 39, Texaco Station 632320369, Texaco Station Delridge Way, Rocky's	7132 Delridge Way SW	98106		●			●	●		C-66
8456079	Chicago Junk Machinery Co	None	13 3rd Avenue S	98902			●					C-10
16644871	Circle K 5925	Delridge USAVE Mini Mart, USAVE Oil Co Seattle, Circle K 2705925	9061 Delridge Way SW	98106						●		C-92
37878256	Corvair Forge	Mike's Auto Repair	9255 16th Avenue SW	98106		●			●	●		C-98
79779728	Cottage Grove Shell Station	Cottage Grove Food Mart	5445 Delridge Way SW	98106						●		C-55
33316419	Crowley Marine Services Pier 2	Prince WM Sound Aquaculture C	2900 SW Florida Street	98126								C-8
23213563	Delrdige ARCO AM PM	EXXON 7-2833, Delridge Way Gas Station & Minimart	7301 Delridge Way SW	98106		●				●	●	C-67
85253557	Delridge Drug Lab	None	8630 Delridge Way SW Apt 102	98106								C-82
23218	Denny Middle School/Chief Sealth High School	None (shared address Seattle School Dist 1 Sealth HS)	2600 SW Thistle Street	98124			●					C-80
28166733	Dinol US Inc W Marginal Way	Puget Sound Terminal Inc, Seattle Port of Fishermans Terminal, Terminal 103 Dredge (shared Building)	3480 W Marginal Way SW	98106								C-16
79884775	Forest Lawn Cemetary	None	6701 30th Avenue SW	98126						●		C-57
67583579	Gas & Smoke Depot	123 Dry Cleaners, Cigarette Depot, Parks Shell Gas & Food Store	9001 Delridge Way SW	98106						●		C-86
94132689	Happy Guests HQ	None	4703 Delridge Way SW	98106					●	●		C-50
2127	Harbor Avenue Landfill	West Seattle Landfill, W Hanford Landfill	Harbor Avenue SW & SW Florida Street	98126		●						C-11
38884519	Heckett Multiserv Plant 30	Bethlehem Steel Corp, Birmingham Steel Corp Seattle Division, NUCOR Steel Seattle Inc, Seattle Steel Inc, Heckett Multiserv Plant 65, HARSCO Co	2424 SW Andover Street	98106								C-39
5991749	Heraldo Residence	None	8856 16th Avenue SW	98106		●					●	C-85
1949107	High Point Redevelopment Stormwater Dam	None	High Point Neighborhood, Seattle	98126								C-58
3894935	Historic Cooper School LLC Cultural Ctr	None	4408 Delridge Way SW	98106								C-49
25246743	Holy Family Church UST 12496	Holy Family Church	9622 20th Avenue SW	98102						●		C-109
5206873	Home Depot 8944	Home Depot 8944 Seattle (shared building with Penske Auto Center)	24th Avenue SW at SW Webster Street	98106								C-72
99157494	Home Depot 8944 Seattle	Home Depot 8944 (shared building with Penske Auto Center)	7345 Delridge Way SW	98106	●				●	●		C-69
26197631	Jackpot Station 247	Time Oil Co, Jackpot Food Mart Delridge W, Petrosun 1247	5235 Delridge Way SW	98106						●		C-52
62891193	Joes Super Service	None	3817 Delridge Way SW	98106						●		C-34
3121499	King Residence	None	6518 16th Avenue SW	98106		●						37
89749329	Kits Cameras 1031	None (Shared Building)	2500 SW Barton Street	98106								C-96
52372318	Klein Property	None	9066 Delridge Way SW	98106					●	●		C-95
2511	Kruse Construction	None	5609-5611 Delridge Way SW	98106		●					●	C-56
21915527	Lennys Fuel Co	Lennys Fuel Co UST 6911	9025 Delridge Way SW	98106					●	●		C-89
16399536	Lennys Fuel Co UST 6911	Lennys Fuel Co	9010 Delridge Way SW	98106					●	●		C-91
94284279	Lockheed Shipbuilding Const	Exportech, Lockheed Shipbuilding Company Yard 2 (shared address, Olympic Tug & Barge, Seattle Port Terminal 5)	2330 SW Florida Street	98106					●	●		C-5

Table D-1
Facilities within the Chelan CSO Basin that are Listed in the Ecology Facility/Site Database

Facility/ Site ID	Facility Name	Alternate Name(s)	Facility Address	Zip Code	Active EPA ID No.	Ecology CSCSL	NPDES Permit	KCIW Discharge Permit	LUST	UST	Ecology NFA	Map ID[1]
12355892	Martin Air Conditioning & Fuel Co Inc	Marting Air Conditioning & Fuel Co Inc UST 8365	2340 SW Spokane Street	98106					●	●		C-27
24489955	Morel Foundry Corp	Morel Foundry Corporation	3400 26th Avenue SW	98106								C-22
66554824	Morel Foundry Corporation	Morel Foundry Corp	3400 26th Avenue SW	98106						●		C-24
33433876	NU Tone Cleaners Inc	None	9654 17th Avenue SW	98106								C-110
2091	Nucor Steel Seattle Inc	Bethlehem Steel Corp, Birmingham Steel Corp, Seattle Steel, Inc, Heckett Multiserv Plant 65, HARSCO Co Heckett Multiserv Plant 65, Heckett Multiserv Plant 30	2424 SW Andover Street	98106	●	●	●	●				C-38
53518129	Ole & Charles High & Dry Company	None	3568 West Marginal Way SW	98106						●		C-30
17567	Olympic Tug and Barge Port of Seattle Terminal 5	None (Shared Address, Lockheed Shipbuilding, Seattle Port Terminal 5)	26th Avenue SW & Florida Avenue SW	98134								C-15
78325494	Penske Auto Center 4225	(Shared Building with Home Depot 8944)	7345 Delridge Way SW Shop Only	98106								C-70
66464199	Pioneer Industries Seattle	Pioneer Industries	7000 Highland Parkway SW	98106	●		●					C-68
24997	Portvue Condominiums & Apartments	None	4040 26th Avenue SW	98106			●					C-45
59615727	Puget Sound Auto Ctr	None	2827 SW Roxbury Street	98126								C-103
2231481	Purdy Co of Illinois	The Purdy Co, The Purdy Co of Illinois	2929 SW Florida Street	98126	●							C-7
14737168	Rite Aid 5220	None	9071 Westwood Village Way SW	98126								C-51
81566291	Rowe Property	None	3848 22nd Avenue SW	98106		●					●	C-35
54141464	Safeway Fuel Center 1923	None	9620 28th Avenue SW	98126						●		C-107
71612388	Salmon Bay Steel Surplus Machine	None	2467 SW Andover Street	98106								C-41
6328035	Saltys Properties	None	4701 Delridge Way SW	98106		●						C-73
85222758	Seattle City Admiral Way Bridge	None	SW Admiral Way between Handford & Harbor Avenue SW	98126								C-33
88479511	Seattle City Spokane St Swing Brg	Spokane Street Swing Bridge	3600 West Marginal Way SW	98106	●							C-31
35637618	Seattle City SW Trenton PS Chlorination	Seattle City West Seattle Reservoir Chlorination	4th Avenue SW & SW Trenton Street	98106								C-78
85149752	Seattle City Used Oil Collect Graham St	None	3000 SW Graham Street	98126								C-63
6344311	Seattle City Webster Street	None	2300 SW Webster Street	98106						●		C-71
14169776	Seattle City West Seattle Reservoir Chlorination	Seattle City SW Trenton PS Chlorination	8th Avenue SW & SW Henderson Street	98106								C-79
2454	Seattle Commerce Center	None	Delridge Way SW & SW Andover Street	98106		●						C-37
54979167	Seattle Fire Station 11	None	1514 SW Holden Street	98106					●	●		C-76
44532529	Seattle Fire Station 36	None	3600 23rd Avenue SW	98106					●	●		C-26
29279211	Seattle Housing Authority High Point	None	3020 SW Graham Street	98126								C-62
3495395	Seattle Housing Authority High Pt Revita	None	6550 32nd Avenue SW	98126								C-64
12143	Seattle Housing High Point	None	High Point Neighborhood, Seattle	98126			●					C-61
3780314	Seattle Port of Fishermans Terminal	Dinol US Inc W Marginal Way, Puget Sound Terminal Inc, Terminal 103 Dredge (Shared Building)	3480 W Marginal Way SW	98106								C-20
73614153	Seattle Port Pier 2	None	2400 Harbor Avenue SW	98126	●							C-3
52224676	Seattle Port Terminal 5	Terminal 5	2505 26th Avenue SW	98106	●							C-14
5977653	Seattle Public Utilities Sewer Drain	None	16th Avenue SW & Delridge Way SW	98106								C-105
16344846	Seattle School Dist 1 L Boren Cooper	None	5950 Delridge Way SW	98106								C-59
2513352	Seattle School Dist 1 Sealth HS	None (shared address Denny Middle School/Chief Sealth High School)	2600 SW Thistle Street	98126	●							C-81
511630	Seattle SD Boren Building	None	5959 Delridge Way SW	98106								C-60
2092	Seattle Steel Cooling Pond	None (shared address Nucor Steel, Seattle Steel Inc UST 9779)	28th Avenue SW & SW Andover Street	98124		●					●	C-42
2493982	Seattle Steel Inc	None	4045 Delridge Way SW	98106								C-43
28836539	Seattle Steel Inc UST 9779	None (shared address Nucor Steel, Seattle Steel Cooling Pond)	4001 28th Avenue SW	98126					●	●		C-36
2992026	Seattle White Center Corps Community Cen	None	9050 16th Avenue SW	98106		●					●	C-90
4989075	Sno Pac Products Inc	None	Chelan Avenue									C-18
77229417	Southend Autobody	None	9439 17th Avenue SW	98106								C-99
37445949	Southwest Genesee Street Detention Dam	None		98121								C-48
24646867	Stans Mt View Towing	None	9000 Delridge Way SW	98106						●		C-87
44862443	Sun Cor Holdings COPII LLC 2	BP Service Station 03117, BP Service Station Roxbury Street, ConocoPhillips 30099, TOSCO 0311730099, Roxbury Gasoline	2851 SW Roxbury Street	98126					●	●		C-102
2385	SW Harbor Proj Salmon Bay	Salmon Bay Steel W Seattle (shared address SW Harbor Proj BN Buckley YD)	26th Avenue SW & SW Spokane Street	98134		●						C-21

Table D-1
Facilities within the Chelan CSO Basin that are Listed in the Ecology Facility/Site Database

Facility/ Site ID	Facility Name	Alternate Name(s)	Facility Address	Zip Code	Active EPA ID No.	Ecology CSCSL	NPDES Permit	KCIW Discharge Permit	LUST	UST	Ecology NFA	Map ID[1]
2384	SW Harbor Proj BN Buckley Yard	Buckley Yard, Burlington Northern Buckley Yard	26th Avenue SW & SW Spokane Street	98134		●						C-1
2388	SW Harbor Proj Lockheed Yard 2	Lockheed Log Shipbuilding Yard 2 (shared address)	2330 SW Florida Street	98106		●						C-17
2386	SW Harbor Proj Seattle Steel	Harbor Ave Landfill, W Hanford Landfill, West Seattle Landfill	Harbor Avenue SW & SW Hanford Street	98134		●						C-12
2387	SW Harbor Proj Wyckoff	Pacific Sound Resources, SW Harbor Proj Wyckoff, Wyckoff W Seattle (shared address Lockheed)	West Marginal Way SW & SW Florida Street	98134		●						C-6
2383	SW Harbor Project	Lockheed Shipbuilding Yard 2, SW Harbor Project (Shared address Lockheed Ship)	2330 SW Florida Street	98106		●						C-2
2061	SW Harbor Project Terminal 5	None (shared address Terminal 5, Lockheed Shipbuilding)	26th Avenue SW & West Marginal Way SW	98106		●						C-19
24777431	SW Webster Street Detention Basin	None		98121								C-74
73333527	Sylvan Way Land Co Sand Pit	Fairfield, Sylvan Way Property	6901 Sylvan Way SW	98106		●					●	C-65
6481404	Target Store 0637	None	2800 SW Barton Street	98126	●							C-94
39873726	Terminal 5	Seattle Port Terminal 5	2805 26th Avenue SW	98106					●	●		C-13
9724897	US Army Corps of Engineers Duwamish	Duwamish Turning Basin Dredge										C-4
1578942	US Postal Service Seattle	None (Shared address)	2721 SW Trenton Street	98126	●							C-84
18651532	USPS Westwood Station	USPS UST 4564 (Shared Address)	2721 SW Trenton Street	98126		●			●	●		C-83
79487297	Vans Auto Rebuild	None	9226 15th Avenue SW	98106								C-97
43445813	WA CC South Seattle Community College	South Seattle Community College UST 5966, South Seattle Community College	6000 16th Avenue SW	98106	●				●	●		36
37212955	WA DOT Fauntleroy Ferry Terminal	WA DOT Fauntleroy Terminal	4829 SW Barton Street	98136	●		●					C-93
95193417	Walts Radiator & Muffler Roxbury	None	1702 SW Roxbury Street	98106								C-106
25487741	West Seattle Community Hospital	Seattle West Medical Ctr	2600 SW Holden Street	98126						●		C-53
16265989	West Waterway Lumber Company	Island Tug & Barge Co Seattle	3546 West Marginal Way SW	98124			●			●		C-29
69998834	Westside Free Methodist Church	None	2615 SW Holden Street	98126						●		C-77
45897225	White Center Barrels	None	2601 SW Roxbury Street	98126								C-104
48346621	White Center Texaco	White Center Inc	1505 SW Roxbury Street	98106						●		C-108
146	Wycoff Co West Seattle	Pacific Sound Resources, Wyckoff Company UST 3554	2801 SW Florida Street	98126	●	●				●		C-9
15358885	Zion Auto Rebuilds	Excel Garage Auto Repairs & Gas Station, SO Design, Triple J Services Auto & Truck Repairs, Webber's Richfield Service Station, Pat's Auto Repair	5402 Delridge Way SW	98106						●		C-54

1 - See Appendix D, Figure D
EPA - U.S. Environmental Protection Agency
CSCSL - Confirmed or Suspected Contaminated Sites List
NPDES - National Pollutant Discharge Elimination System
LUST - Leaking Underground Storage Tank
UST - Underground Storage Tank
NFA - No Further Action

Table D-2
Property Information for Facilities in the Chelan CSO Basin with Ecology Facility/Site Identification Numbers

Facility/ Site ID	Facility Name	Facility Address	Zip Code	Parcel(s) & Alternate Addresses	Property Owner	Acreage (acres, sq ft)	Buildings (year built, sq ft)	Map ID[1]
3123614	21st Ave W Seattle	3602 21st Avenue W	98199		WA ECY			C-32
41538262	28th Ave SW	4209 28th Avenue SW	98106	9358001491	Dollar M Denise	0.06 a, 2,550 sq ft	B-1 (1909, 870 sq ft)	C-46
5589	7533 29th Ave SW Site	7533 29th Avenue SW	98126	9269200819	Toews Robert E and Karen R	0.14 a, 6,125 sq ft	B-1 (1945, 910 sq ft)	C-75
76433239	Airtouch Cellular Seattle MTSO	6901 West Marginal Way SW	98106	3024049169	6901 LLC	0.85 a, 36,995 sq ft	B-1 (1983,6,000 sq ft)	C-25
35245957	Airtouch Riverside	3433 West Marginal Way SW	98106	7666705045	Port of Seattle	2.55 a, 111,185 sq ft	B-1 (1987,14,650 sq ft)	C-28
7684394	Albertos Fiberglass Boat Repair Inc	4266 20th Avenue SW	98119					C-47
21777173	American President Lines Ltd	3443 West Marginal Way SW	98106	7666705045: 3443 West Marginal Way SW 7666705022: 2340 SW Spokane Street 7666705020: 2300 SW Spokane Street	Port of Seattle	5045: 2.55, 111,185sq ft 5022: 1.37 a, 59,500 sq ft 5020: 1.43 a, 62,300 sq ft	5045: B-1 (1987,14650)	C-23
44442952	Anacomp Inc Andover	2414 SW Andover Street Building E, Suite	98106	7666704005	Frye Art Museum	4.39 a, 191,113 sq ft	B-1 (1988, 21,924 sq ft)	C-40
6723598	AT&T Seattle 27th	9455 27th Avenue SW	98126	3624039128: 9433 27th Avenue SW	Seattle Housing Authority	2.13 a, 92,783 sq ft	B-1 (1978, 77,577 sq ft)	C-101
8742315	AT&T Yancy Street	2806 SW Yancy Street	98126	9358000465	Lucchesini Geno	0.23 a, 10,200 sq ft		C-44
63147939	Avalon VW Auto Sales Inc	9420 16th Avenue SW	98106	3298701115: 9420 16th Avenue SW 3298701100: 9400 16th Avenue SW 3298701117: 9426 16th Avenue SW	Tam Luis W and Pacita Q	1115: 0.34 a, 14,655 sq ft 1100: 0.30 a, 13,038 sq ft 1117: 0.11a, 4,831 sq ft	1115: B-1 (1951, 14,390 sq ft) 1117: B-1 (1951, 1,350 sq ft)	C-100
86294678	Boeing South Park Henderson	1600 S Henderson Street	98106	7883608601: 1420 S Trenton Street 7883608603: 1420 S Trenton Street	The Boeing Company	8601: 19.92 a, 867,540, sq ft 8603: 7.81a, 340,020 sq ft	8601: B-1 (1980, 82,128 sq ft) 8603: B-1 (1988, 28,447 sq ft)	C-88
63938375	Chevron Service Station 21-1551	7132 Delridge Way SW	98106	7985400520	Chung Hyon OK	0.58 a, 25,100 sq ft	B-1 (1998, 2,360 sq ft)	C-66
8456079	Chicago Junk Machinery Co	13 3rd Avenue S	98902					C-10
16644871	Circle K 5925	9061 Delridge Way SW	98106	4365700315	Circle Stores Inc	0.10 a, 4,356 sq ft	B-1 (1960, 540 sq ft)	C-92
37878256	Corvair Forge	9255 16th Avenue SW	98106	9352900065: 9255 16th Avenue SW 9352900070: 9255 1/2 16th Avenue SW	Boun Properties LLC	0065: 0.23 a, 9,863 sq ft 0070: 0.13 a, 5,548 sq ft	0065: B-1 (1947, 1,036 sq ft) 0070: B-1 (1947, 1,153 sq ft)	C-98
79779728	Cottage Grove Shell Station	5445 Delridge Way SW	98106	1773101410: 5439 Delridge Way SW	Harding Pyong Choe	0.46 a, 19,874 sq ft	B-1 (1998, 2,115 sq ft)	C-55
33316419	Crowley Marine Services Pier 2	2900 SW Florida Street	98126	7666705340	Port of Seattle	5340: 3.13 a, 136,552 sq ft		C-8
23213563	Delrdige ARCO AM PM	7301 Delridge Way SW	98106	7985400301	Soyam Delridge Property LLC	1.05 a, 45,600 sq ft	B-1 (1999, 2,748 sq ft)	C-67
85253557	Delridge Drug Lab	8630 Delridge Way SW Apt 102	98106	4302200110	Delridge Neighborhood Developments	0.24 a, 10,439 sq ft	B-1 (1964, 9,625 sq ft)	C-82
23218	Denny Middle School/Chief Sealth High School	2600 SW Thistle Street	98124	3624039032: 2500 SW Thistle Street 3624039008: 8402 30th Avenue SW 4364700415: 8402 30th Avenue SW	Seattle Public Schools	9032: 17.22 a, 750,103 sq ft 9008: 26.00 a, 1,132,459 sq ft 0415: 4.16 a, 181,328 sq ft	9032: B-1 (1956, 155,832 sq ft) 9008: B-1 (2001, 3,016 sq ft) 0415: B-1 (1960, 72,982 sq ft)	C-80
28166733	Dinol US Inc W Marginal Way	3480 W Marginal Way SW	98106	7666705088	First Industrial LP	5.02 a, 218,500 sq ft	B-1 (1965, 15,365)	C-16
79884775	Forest Lawn Cemetary	6701 30th Avenue SW	98126	2524039040: 6701 30th Avenue SW 2524039022: NA 2524039015: 6701 30th Avenue SW 2524039055: 28th Avenue SW	SCI Management Corp	9040: 19.23 a, 837,658 sq ft 9022: 4.94 a, 215,186 sq ft 9015: 1.15 a, 50,094 sq ft 9055: 0.81 a, 35,401 sq ft	9040: B-1 (1953, 676 sq ft) 9015: B-1 (1947, 5,322 sq ft)	C-57
67583579	Gas & Smoke Depot	9001 Delridge Way SW	98106	4365700320	Lee Byung Chan and M Pia	0.19 a, 8,396 sq ft	B-1 (1993, 2,460 sq ft)	C-86
94132689	Happy Guests HQ	4703 Delridge Way SW	98106					C-50
2127	Harbor Avenue Landfill	Harbor Avenue SW & SW Florida Street	98126					C-11
38884519	Heckett Multiserv Plant 30	2424 SW Andover Street	98106	2445100110 2445100140	Nucor Steel Seattle Inc	0110: 43.60 a, 1,899,216 sq ft 0140: 0.07 a, 2,875 sq ft	0110: B-1 (1935, 4,670 sq ft)	C-39
5991749	Heraldo Residence	8856 16th Avenue SW	98106	3298700045	Madison Place Holdings	0.18 a, 7,967 sq ft	B-1 (1941, 1,070)	C-85
1949107	High Point Redevelopment Stormwater Dam	High Point Neighborhood, Seattle	98126					C-58
3894935	Historic Cooper School LLC Cultural Ctr	4408 Delridge Way SW	98106	3388120000		2.52 a, 109,735 sq ft	B-1 (1917, NA)	C-49
25246743	Holy Family Church UST 12496	9622 20th Avenue SW	98102	3004800120: 9622 20th Avenue SW 0123039050: 1815 SW Roxbury Street 3004800160: NA 3004800056: NA 3004800050: 9643 20th Avenue SW 3004800005: 9643 20th Avenue SW 0123039055: 1815 SW Roxbury Street 3004800080: NA 3004800100: NA	CCAS Property and Construction	0120: 0.91 a, 39,624 sq ft 9050: 0.68 a, 29,828 sq ft 0160: 0.18 a, 7,874 sq ft 0056: 0.53 a, 23,220 sq ft 0050: 0.19 a, 8,157 sq ft 0005: 1.08 a, 47,045 sq ft 9055: 0.82 a, 35,901 sq ft 0080: 0.44 a, 19,040 sq ft 0100: 0.47 a, 20,385 sq ft	0120: B-1 (1952, 5,112 sq ft) 9050: B-1 (1954, 11,296 sq ft) 0005: B-1 (1924, 42,975 sq ft)	C-109
5206873	Home Depot 8944	24th Avenue SW at SW Webster Street	98106	7985400295: 7345 Delridge Way SW	First Berkshire Properties LLC	8.04 a, 350,213 sq ft	B-1 (2005, 94,713 sq ft)	C-72
99157494	Home Depot 8944 Seattle	7345 Delridge Way SW	98106	7985400295: 7345 Delridge Way SW	First Berkshire Properties LLC	8.04 a, 350,213 sq ft	B-1 (2005, 94,713 sq ft)	C-69
26197631	Jackpot Station 247	5235 Delridge Way SW	98106	1773101085: 5235 Delridge Way SW	Pacific Convenience and Fuel	0.26 a, 11,396 sq ft	B-1 (1986, 1,914 sq ft)	C-52
62891193	Joes Super Service	3817 Delridge Way SW	98106	2848700020: NA	Delridge Villas LLC	0.14 a, 6,180 sq ft		C-34
3121499	King Residence	6518 16th Avenue SW	98106	2428200191: 6518 16th Avenue SW 2428200187: 6512 16th Avenue SW	Robert and Roberta King	0191: 0.27 a, 11,550 sq ft 0187: 0.27 a, 11,550 sq ft	0191: B-1 (1946, 1,200 sqft) 0187: B-1 (1956, 770 sqft)	37
89749329	Kits Cameras 1031	2500 SW Barton Street	98106	3624039009: 2600 SW Barton Street	Wesbild Shopping Centers	19.90 a, 866,760 sq ft	B-1 (1966, 63,387 sq ft)	C-96
52372318	Klein Property	9066 Delridge Way SW	98106	7899800700: 9064 Delridge Way SW	Klein Harris S and Charna	0.30 a, 13,232 sq ft	B-1 (1946, 12,180 sq ft)	C-95
2511	Kruse Construction	5609-5611 Delridge Way SW	98106	1773101750: 5609 Delridge Way SW 1773101760: 5611 Delridge Way SW 1773101765: 5611 Delridge Way SW	Harmon Richard B and Nancy A	1750: 0.23 a, 9,936 sq ft 1760: 0.11 a, 4,968 sq ft 1765: 0.11 a, 4,968 sq ft	1750: B-1 (1956, 2,432 sq ft) 1765: B-1 (1951, 600 sq ft)	C-56

Table D-2
Property Information for Facilities in the Chelan CSO Basin with Ecology Facility/Site Identification Numbers

Facility/ Site ID	Facility Name	Facility Address	Zip Code	Parcel(s) & Alternate Addresses	Property Owner	Acreage (acres, sq ft)	Buildings (year built, sq ft)	Map ID[1]
21915527	Lennys Fuel Co	9025 Delridge Way SW	98106	4365700340: 9025 Delridge Way SW	Tabakian Ben	0.10 a, 4,296 sq ft	B-1 (1923, 840 sq ft)	C-89
16399536	Lennys Fuel Co UST 6911	9010 Delridge Way SW	98106	7899800625: 9010 Delridge Way SW	Detweiler Jeff P and Rupp Andre	0.12 a, 5,250 sq ft	B-1 (1962, 935 sq ft)	C-91
94284279	Lockheed Shipbuilding Const	2330 SW Florida Street	98106	7666705200: 2330 SW Florida Street 7666705209: SW Florida Street 7666705565: 2701 26th Avenue SW 7666706430: NA	Port of Seattle	5200: 16.71 a, 727,887 sq ft 5209: 3.13 a, 136,552 sq ft 5565: 95.13 a, 4,143,840 sq ft 6430: 12 a, 522,681 sq ft	5565: B-1 (1966, 370,418 sq ft)	C-5
12355892	Martin Air Conditioning & Fuel Co Inc	2340 SW Spokane Street	98106					C-27
24489955	Morel Foundry Corp	3400 26th Avenue SW	98106	7666704010: 3001 28th Avenue SW	Port of Seattle	62.13 a, 2,706,552 sq ft		C-22
66554824	Morel Foundry Corporation	3400 26th Avenue SW	98106	7666704010: 3001 28th Avenue SW	Port of Seattle	62.13 a, 2,706,552 sq ft		C-24
33433876	NU Tone Cleaners Inc	9654 17th Avenue SW	98106	0123039271: 9652 17th Avenue SW	Kim Heng and Navy	0.11 a, 4,596 sq ft	B-1 (1955, 1,584 sq ft)	C-110
2091	Nucor Steel Seattle Inc	2424 SW Andover Street	98106	2445100110 2445100140	Nucor Steel Seattle Inc	0110: 43.60 a, 1,899,216 sq ft 0140: 0.07 a, 2,875 sq ft	0110: B-1 (1935, 4,670 sq ft)	C-38
53518129	Ole & Charles High & Dry Company	3568 West Marginal Way SW	98106	7666703290: 3800 West Marginal Way SW	Riverside Mill LLC	6.23 a, 271,281 sq ft	B-1 (1948, 35,822 sq ft)	C-30
17567	Olympic Tug and Barge Port of Seattle Terminal 5	26th Avenue SW & Florida Avenue SW	98134	7666705200: 2330 SW Florida Street 7666705209: SW Florida Street 7666705565: 2701 26th Avenue SW 7666706430: NA	Port of Seattle	5200: 16.71 a, 727,887 sq ft 5209: 3.13 a, 136,552 sq ft 5565: 95.13 a, 4,143,840 sq ft 6430: 12 a, 522,681 sq ft	5565: B-1 (1966, 370,418 sq ft)	C-15
78325494	Penske Auto Center 4225	7345 Delridge Way SW Shop Only	98106	7985400295: 7345 Delridge Way SW	First Berkshire Properties LLC/ATTN: Legal Dept	8.04 a, 350,213 sq ft	B-1 (2005, 94,713 sq ft)	C-70
66464199	Pioneer Industries Seattle	7000 Highland Parkway SW	98106	3024049003	Pioneer Human Services	6.18 a, 268,984 sq ft	B-1 (1970, 70,400 sq ft)	C-68
24997	Portvue Condominiums & Apartments	4040 26th Avenue SW	98106	2444600025	Portvue LLC	1.21 a, 52,511 sq ft		C-45
59615727	Puget Sound Auto Ctr	2827 SW Roxbury Street	98126	123039620	Potter Marilyn M	0.20 a, 8,622 sq ft	B-1 (1974, 2,700 sq ft)	C-103
2231481	Purdy Co of Illinois	2929 SW Florida Street	98126	7666704010: 3001 28th Avenue SW	Port of Seattle	62.13 a, 2,706,552 sq ft		C-7
14737168	Rite Aid 5220	9071 Westwood Village Way SW	98126	3624039009: 2600 SW Barton Street	Wesbild Shopping Centers	19.90 a, 866,760 sq ft	B-1 (1966, 63,387 sq ft)	C-51
81566291	Rowe Property	3848 22nd Avenue SW	98106	2848700480: 3848 22nd Avenue SW 2848700490: 3850 22nd Avenue SW	Rowe Harvey	0.19 a, 8,100 sq ft 0.11 a, 5,000 sq ft	B-1 (1900, 540 sq ft) B-1 (1930, 2,180 sq ft)	C-35
54141464	Safeway Fuel Center 1923	9620 28th Avenue SW	98126	2853600005	Safeway Inc	5.80 a, 252,758 sq ft	B-1 (1961, 64,070 sq ft)	C-107
71612388	Salmon Bay Steel Surplus Machine	2467 SW Andover Street	98106	7881500200: 4025 Delridge Way SW	Development Services of America	4.87 a, 212,137 sq ft	B-1 (1991, 118,026 sq ft)	C-41
6328035	Saltys Properties	4701 Delridge Way SW	98106	1773100090: 2401 SW Alaska Street	Buckingham Properties LLC	0.46 a, 19,874 sq ft	B-1 (1959, 10,280 sq ft)	C-73
85222758	Seattle City Admiral Way Bridge	SW Admiral Way between Handford & Harbor Avenue SW	98126	1324039006	City of Seattle - DPR	2.11 a, 91,969 sq ft		C-33
88479511	Seattle City Spokane St Swing Brg	3600 West Marginal Way SW	98106	1324039103	Seattle Department of Transportation	0.91 a, 39,567 sq ft		C-31
35637618	Seattle City SW Trenton PS Chlorination	4th Avenue SW & SW Trenton Street	98106	7972603535: 8800 8th Avenue SW 3124049028: 8801 3rd Avenue S 7972603510: 9000 8th Avenue SW	City of Seattle Parks Department	3535: 20.71 a, 902,128 sq ft 9028: 3.21 a, 140,000 sq ft 3510: 85.89 a, 3,741,368 sq ft	3510: B-1 (2001, 18,888 sq ft)	C-78
85149752	Seattle City Used Oil Collect Graham St	3000 SW Graham Street	98126	3278602760	Chorney, Christopher P and Andre	0.04 a, 1,853 sq ft	B-1 (2007, 1,770 sq ft)	C-63
6344311	Seattle City Webster Street	2300 SW Webster Street	98106	7985400296	City of Seattle FAS	2.41 a, 104,787 sq ft	B-1 (2002, 28,531 sq ft)	C-71
14169776	Seattle City West Seattle Reservoir Chlorination	8th Avenue SW & SW Henderson Street	98106	7972603535: 8800 8th Avenue SW 3124049028: 8801 3rd Avenue S 7972603510: 9000 8th Avenue SW	City of Seattle Parks Department	3535: 20.71 a, 902,128 sq ft 9028: 3.21 a, 140,000 sq ft 3510: 85.89 a, 3,741,368 sq ft	3510: B-1 (2001, 18,888 sq ft)	C-79
2454	Seattle Commerce Center	Delridge Way SW & SW Andover Street	98106	7881500200: 4025 Delridge Way SW	Development Services of America	4.87 a, 212,137 sq ft	B-1 (1991, 118,026 sq ft)	C-37
54979167	Seattle Fire Station 11	1514 SW Holden Street	98106	2112701145: 1512 SW Holden Street	City of Seattle FAS	0.27 a, 11,552 sq ft	B-1 (1971, 5,610 sq ft)	C-76
44532529	Seattle Fire Station 36	3600 23rd Avenue SW	98106	1324039043: 3600 23rd Avenue SW 1324039040: 3610 23RD AVE 98106	City of Seattle FAS	9043: 0.19 a, 8,075 sq ft 9040: 0.19 a, 8,310 sq ft	B-1 (1900, 4,676 sq ft)	C-26
29279211	Seattle Housing Authority High Point	3020 SW Graham Street	98126	3278602680: 3020 SW Graham Street	Butcher, Helen L	0.04 a, 1,840 sq ft	B-1 (2007, 1,770 sq ft)	C-62
3495395	Seattle Housing Authority High Pt Revita	6550 32nd Avenue SW	98126	3278610850: 6550 32nd Avenue SW 3278610860: 6552 32nd Avenue SW 3278610840: NA 3278610870: 6520 32nd Avenue SW	Seattle Housing Authority	0850: 0.03 a, 1,523 sq ft 0860: 0.06 a, 2,475 sq ft 0840: 0.03 a, 1,523 sq ft 0870: 0.08 a, 3,480 sq ft	0850: B-1 (2008, 1,260 sq ft) 0860: B-1 (2008, 1,280 sq ft)	C-64
12143	Seattle Housing High Point	High Point Neighborhood, Seattle	98126		Devland Inc			C-61
3780314	Seattle Port of Fishermans Terminal	3480 W Marginal Way SW	98106	7666705088	First Industrial LP	5.02 a, 218,500 sq ft	B-1 (1965, 15,365)	C-20
73614153	Seattle Port Pier 2	2400 Harbor Avenue SW	98126	7666706565: 2300 Harbor Avenue SW	Port of Seattle	6565: 1.98 a, 86,320 sq ft		C-3
52224676	Seattle Port Terminal 5	2505 26th Avenue SW	98106	7666705200: 2330 SW Florida Street 7666705209: SW Florida Street 7666705565: 2701 26th Avenue SW 7666706430: NA	Port of Seattle	5200: 16.71 a, 727,887 sq ft 5209: 3.13 a, 136,552 sq ft 5565: 95.13 a, 4,143,840 sq ft 6430: 12 a, 522,681 sq ft	5565: B-1 (1966, 370,418 sq ft)	C-14
5977653	Seattle Public Utilities Sewer Drain	16th Avenue SW & Delridge Way SW	98106					C-105
16344846	Seattle School Dist 1 L Boren Cooper	5950 Delridge Way SW	98106	3438501230 3438501520	Seattle Public Schools	1230: 13.85 a, 603,144 sq ft 1520: 1.36 a, 59,247 sq ft	1230: B-1 (1962, 51,864 sq ft)	C-59
2513352	Seattle School Dist 1 Sealth HS	2600 SW Thistle Street	98126	3624039032: 2500 SW Thistle Street 3624039008: 8402 30th Avenue SW 4364700415: 8402 30th Avenue SW	Seattle Public Schools	9032: 17.22 a, 750,103 sq ft 9008: 26.00 a, 1,132,459 sq ft 0415: 4.16 a, 181,328 sq ft	9032: B-1 (1956, 155,832 sq ft) 9008: B-1 (2001, 3,016 sq ft) 0415: B-1 (1960, 72,982 sq ft)	C-81
511630	Seattle SD Boren Building	5959 Delridge Way SW	98106	3438501334: 5957 Delridge Way SW	Jack Oruene I	0.08 a, 3,615 sq ft	B-1 (2009, 1,600 sq ft)	C-60

Table D-2
Property Information for Facilities in the Chelan CSO Basin with Ecology Facility/Site Identification Numbers

Facility/ Site ID	Facility Name	Facility Address	Zip Code	Parcel(s) & Alternate Addresses	Property Owner	Acreage (acres, sq ft)	Buildings (year built, sq ft)	Map ID[1]
2092	Seattle Steel Cooling Pond	28th Avenue SW & SW Andover Street	98124	2445100110 2445100140	Nucor Steel Seattle Inc	0110: 43.60 a, 1,899,216 sq ft 0140: 0.07 a, 2,875 sq ft	0110: B-1 (1935, 4,670 sq ft)	C-42
2493982	Seattle Steel Inc	4045 Delridge Way SW	98106	2444600005	Weiss-Jenkins II LLC	1.89 a, 82,403 sq ft	B-1 (1960, 44,474 sq ft)	C-43
28836539	Seattle Steel Inc UST 9779	4001 28th Avenue SW	98126	2445100110 2445100140	Nucor Steel Seattle Inc	0110: 43.60 a, 1,899,216 sq ft 0140: 0.07 a, 2,875 sq ft	0110: B-1 (1935, 4,670 sq ft)	C-36
2992026	Seattle White Center Corps Community Cen	9050 16th Avenue SW	98106	3298700490: 9050 16th Avenue SW 3298700476: 9000 16th Avenue SW 3298700471: 9020 16th Avenue SW 3298700470: 9012 16th Avenue SW 3298700456: 9006 16th Avenue SW 3298700455: NA	The Salvation Army	0490: 0.59 a, 25,746 sq ft 0476: 0.15 a, 6,361 sq ft 0471: 0.29 a, 12,839 sq ft 0470: 0.15 a, 6,412 sq ft 0456: 0.14 a, 6,304 sq ft 0455: 0.15 a, 6,475 sq ft	0490: B-1 (1957 a, 24,224 sq ft)	C-90
4989075	Sno Pac Products Inc	Chelan Avenue						C-18
77229417	Southend Autobody	9439 17th Avenue SW	98106	9352900990 9352900985	Seattle Bible	0990: 0.18 a, 7,697 sq ft 0985: 0.15 a, 6,415 sq ft	0990: B-1 (1946, 5,747 sq ft)	C-99
37445949	Southwest Genesee Street Detention Dam		98121	9358001220: 4111 26th Avenue SW	City of Seattle Parks Department	5.65 a, 245,975 sq ft		C-48
24646867	Stans Mt View Towing	9000 Delridge Way SW	98106	7899800620	Bradley, Stanley E	0.18 a, 7,800 sq ft	B-1 (1964, 3,280 sq ft)	C-87
44862443	Sun Cor Holdings COPII LLC 2	2851 SW Roxbury Street	98126	7262200011: 2851 SW Roxbury Street	NuWave LLC	0.35 a, 15,399 sq ft	B-1 (1957, 1,288 sq ft)	C-102
2385	SW Harbor Proj Salmon Bay	26th Avenue SW & SW Spokane Street	98134	7666705022: 2340 SW Spokane Street 7666705020: 2300 SW Spokane Street 7666705045: 3443 West Marginal Way SW 7666705060: 2400 SW Spokane Street 7666705000: NA 7666705001: NA 7666705002: NA	Port of Seattle	5022: 1.37 a, 59,500 sq ft 5020: 1.43 a, 62,300 sq ft 5045: 2.55 a, 111,185 sq ft 5060: 1.62 a, 70,457 sq ft 5000: 1.53 a, 66,516 sq ft 5001: 0.14, 6,229 sq ft 5002: 0.11 a, 4,792 sq ft	5045: B-1 (1987, 14,650 sq ft)	C-21
2384	SW Harbor Proj BN Buckley Yard	26th Avenue SW & SW Spokane Street	98134	7666705022: 2340 SW Spokane Street 7666705020: 2300 SW Spokane Street 7666705045: 3443 West Marginal Way SW 7666705060: 2400 SW Spokane Street 7666705000: NA 7666705001: NA 7666705002: NA	Port of Seattle	5022: 1.37 a, 59,500 sq ft 5020: 1.43 a, 62,300 sq ft 5045: 2.55 a, 111,185 sq ft 5060: 1.62 a, 70,457 sq ft 5000: 1.53 a, 66,516 sq ft 5001: 0.14, 6,229 sq ft 5002: 0.11 a, 4,792 sq ft	5045: B-1 (1987, 14,650 sq ft)	C-1
2388	SW Harbor Proj Lockheed Yard 2	2330 SW Florida Street	98106	7666705200: 2330 SW Florida Street 7666705209: SW Florida Street 7666705565: 2701 26th Avenue SW 7666706430: NA	Port of Seattle	5200: 16.71 a, 727,887 sq ft 5209: 3.13 a, 136,552 sq ft 5565: 95.13 a, 4,143,840 sq ft 6430: 12 a, 522,681 sq ft	5565: B-1 (1966, 370,418 sq ft)	C-17
2386	SW Harbor Proj Seattle Steel	Harbor Avenue SW & SW Hanford Street	98134					C-12
2387	SW Harbor Proj Wyckoff	West Marginal Way SW & SW Florida Street	98134					C-6
2383	SW Harbor Project	2330 SW Florida Street	98106	7666705200: 2330 SW Florida Street 7666705209: SW Florida Street 7666705565: 2701 26th Avenue SW 7666706430: NA	Port of Seattle	5200: 16.71 a, 727,887 sq ft 5209: 3.13 a, 136,552 sq ft 5565: 95.13 a, 4,143,840 sq ft 6430: 12 a, 522,681 sq ft	5565: B-1 (1966, 370,418 sq ft)	C-2
2061	SW Harbor Project Terminal 5	26th Avenue SW & West Marginal Way SW	98106	7666705200: 2330 SW Florida Street 7666705209: SW Florida Street 7666705565: 2701 26th Avenue SW 7666706430: NA	Port of Seattle	5200: 16.71 a, 727,887 sq ft 5209: 3.13 a, 136,552 sq ft 5565: 95.13 a, 4,143,840 sq ft 6430: 12 a, 522,681 sq ft	5565: B-1 (1966, 370,418 sq ft)	C-19
24777431	SW Webster Street Detention Basin		98121	7985400155: SW Webster Street 7985400125: SW Webster Street 7985400116: SW Webster Street 7985400145: Delridge Way SW 98106 7985400150: NA 7985400142: NA	City of Seattle	0155: 1.28 a, 55,773 sq ft 0125: 2.22 a, 105,300 sq ft 0016: 0.99 a, 43,000 sq ft 0145: 0.28 a, 12,180 sq ft 0150: 0.25 a, 10,850 sq ft 0142: 0.09 a, 4,038 sq ft		C-74
73333527	Sylvan Way Land Co Sand Pit	6901 Sylvan Way SW	98106	2524039022	SCI Management Corp	4.94 a, 215,186 sq ft		C-65
6481404	Target Store 0637	2800 SW Barton Street	98126	3624039166	Target Corporation T 0637	6.69 a, 291,300 sq ft	B-1 (1992, 102,500 sq ft)	C-94
39873726	Terminal 5	2805 26th Avenue SW	98106					C-13
9724897	US Army Corps of Engineers Duwamish							C-4
1578942	US Postal Service Seattle	2721 SW Trenton Street	98126	3624039163	USPS Seattle Post Office	2.75 a, 120,000 sq ft	B-1 (1980, 13,933 sq ft)	C-84
18651532	USPS Westwood Station	2721 SW Trenton Street	98126	3624039163	USPS Seattle Post Office	2.75 a, 120,000 sq ft	B-1 (1980, 13,933 sq ft)	C-83
79487297	Vans Auto Rebuild	9226 15th Avenue SW	98106	3298700670	Abella Felipe Jr and Josephine	0.06 sq ft, 2,750 sq ft	B-1 (1944, 750 sq ft)	C-97
43445813	WA CC South Seattle Community College	6000 16th Avenue SW	98106	6171900005 2135200050	Seattle Community College	0005: 59.59 a, 2,595,802 sq ft 0050: 23.33 a, 1,016,401 sq ft	0005: B-1 (1970, 441,071 sq ft)	36
37212955	WA DOT Fauntleroy Ferry Terminal	4829 SW Barton Street	98136	7666708065: 9001 Fauntleroy Way SW	State of Washington DOT	1.00 a, 43,637 sq ft	B-1 (1958, 2,156 sq ft)	C-93
95193417	Walts Radiator & Muffler Roxbury	1702 SW Roxbury Street	98106	9352901015: 1704 SW Roxbury Street	AF Investments LLC	0.19 a, 8,350 sq ft	B-1 (1949, 2,130 sq ft)	C-106

Table D-2
Property Information for Facilities in the Chelan CSO Basin with Ecology Facility/Site Identification Numbers

Facility/ Site ID	Facility Name	Facility Address	Zip Code	Parcel(s) & Alternate Addresses	Property Owner	Acreage (acres, sq ft)	Buildings (year built, sq ft)	Map ID[1]
25487741	West Seattle Community Hospital	2600 SW Holden Street	98126	7985400076: 2600 SW Holden Street 7985400267: SW Webster Street 7985400268: NA 7985400265: 2600 SW Holden Street 7985400266: NA	Highline-West Seattle Menta	0076: 1.29 a, 56,311 sq ft 0267: 1.12 a, 48,712 sq ft 0268: 0.89 a, 38,776 sq ft 0265: 3.95 a, 172,089 sq ft 0266: 1.09 a, 47,535 sq ft	0076: B-1 (1971, 17,268 sq ft) 0265: B-1 (1970, 43,615 sq ft) 0266: B-1 (2005, 613 sq ft)	C-53
16265989	West Waterway Lumber Company	3546 West Marginal Way SW	98124	7666703985: 3546 West Marginal Way SW	ITB Holding Company LLC		3985: B-1 (1975, 66,672 sq ft)	C-29
69998834	Westside Free Methodist Church	2615 SW Holden Street	98126	7985400178: 7700 26th Place SW	Ball J J	0.11 a, 5,000 sq ft	B-1 (1996, 1,730 sq ft)	C-77
45897225	White Center Barrels	2601 SW Roxbury Street	98126	2853600005: 9620 28th Avenue SW	Safeway Inc	5.80 a, 252,758 sq ft	B-1 (1961, 64,070 sq ft)	C-104
48346621	White Center Texaco	1505 SW Roxbury Street	98106	3203800105: 1505 SW Roxbury Street	Lee Hee Chang and Han Syn Hee	0.40 a, 17,430 sq ft	B-1 (1958, 1,352 sq ft)	C-108
146	Wycoff Co West Seattle	2801 SW Florida Street	98126	7666705340: 2900 SW Florida Street	Port of Seattle	24.85 a, 1,082,350 sq ft		C-9
15358885	Zion Auto Rebuilds	5402 Delridge Way SW	98106	1773101515: 5402 Delridge Way SW 1773101520: 5404 Delridge Way SW 1773101525: 5408 Delridge Way SW	Hoang Vuong	1515: 0.11 a, 4,800 sq ft 1520: 0.11 a, 4,800 sq ft 1525: 0.11 a, 4,800 sq ft	1515: B-1 (1947, 400 sq ft) 1520: B-1 (1948, 1,200 sq ft) 1525: B-1 (1940, 812 sq ft)	C-54

1 - See Appendix D, Figure D

Table D-3
Facilities in the Chelan CSO Basin with Active EPA Identification Numbers

Facility/ Site ID	Facility Name	Facility Address	Zip	EPA ID	Date	HWG	HW Mgmt	HW Planner	HW Transfer	Tier 2	TRI	Map ID[1]
35245957	Airtouch Riverside	3433 West Marginal Way SW	98106	CRK000049270	1/1/99					●		C-28
21777173	American President Lines Ltd	3443 West Marginal Way SW	98106	WAD981767981	12/31/08		●					C-23
99157494	Home Depot 8944 Seattle	7345 Delridge Way SW	98106	WAD988498028	HWP 5/15/09 HWG 8/8/05	●		●				C-69
2091	Nucor Steel Seattle Inc	2424 SW Andover Street	98106	WA0000360107 WAD988487583	HWG 5/29/91 HWP 1/1/91 Tier 2 1/1/89 TRI 1/1/87	●		●		●	●	C-38
66464199	Pioneer Industries Seattle	7000 Highland Parkway SW	98106	WAD982657504	Tier 2 1/1/92 HWG 4/28/89	●				●		C-68
2231481	Purdy Co of Illinois	2929 SW Florida Street	98126	WAD089935159	Tier 2 1/1/88					●		C-7
88479511	Seattle City Spokane St Swing Brg	3600 West Marginal Way SW	98106	WAH000014589	12/31/07		●					C-31
73614153	Seattle Port Pier 2	2400 Harbor Avenue SW	98126	WAD980977888	12/31/07		●					C-3
52224676	Seattle Port Terminal 5	2505 26th Avenue SW	98106	WAD981765480	12/31/03		●					C-14
2513352	Seattle School Dist 1 Sealth HS	2600 SW Thistle Street	98126	WAD988490520	12/31/09		●					C-81
6481404	Target Store 0637	2800 SW Barton Street	98126	WAH000027940	12/31/07	●						C-94
1578942	US Postal Service Seattle	2721 SW Trenton Street	98126	CRK000063800	Tier 2 3/3/05					●		C-84
43445813	WA CC South Seattle Community College	6000 16th Avenue SW	98106	WAD037414083	HWP 1/1/00 HWG 4/18/85	●		●				36
37212955	WA DOT Fauntleroy Ferry Terminal	4829 SW Barton Street	98136	WAD982657264	HWM 12/31/05 HWP 1/1/94		●	●				C-93
146	Wycoff Co West Seattle	2801 SW Florida Street	98126	WAD009248287	HWG 12/1/10 Tier 2 1/1/87	●				●		C-9

1 - See Appendix D, Figure D
HWG - Facilities that generate any quantity of hazardous waste
HW Other - Facilities that are required to have a RCRA Site ID, but do not generate or manage hazardous waste
HWP - Facilities that report under Section 313 of the Emergency Planning/Community Right-To-Know Act or that generate more than 2,640 pounds of hazardous waste per year.
Tier2 - Businesses that store 10,000 pounds or more of a hazardous chemical or 500 pounds or less, depending on the chemical, of an extremely hazardous chemical at any time must report annually.
TRI - Facilities in specific industries that manufacture, process or use more than the threshold amount of one or more of 600 listed toxic chemicals.

Table D-4
Facilities within the Chelan CSO Basin
Listed on Ecology's Confirmed or Suspected Contaminated Site List

Facility/ Site ID	Facility Name	Facility Address	Zip	Soil	Groundwater	Surface Water	Air	Sediment	Map ID[1]
5589	7533 29th Ave SW Site	7533 29th Avenue SW	98126	*Confirmed* Petroleum Products					C-75
63938375	Chevron Service Station 21-1551	7132 Delridge Way SW	98106	*Confirmed* Petroleum Products	*Confirmed* Petroleum Products				C-66
37878256	Corvair Forge	9255 16th Avenue SW	98106	*Suspected* Petroleum Products					C-98
23213563	Delrdige ARCO AM PM	7301 Delridge Way SW	98106	*Confirmed* Petroleum Products					C-67
2127	Harbor Avenue Landfill	Harbor Avenue SW & SW Florida Street	98126	*Confirmed* Metals-Priority Pollutants & Other, PCB, Petroleum Products, Conventional Contaminants-Organic	*Confirmed* Metals-Priority Pollutants & Other, PCB, Petroleum Products, Conventional Contaminants-Organic	*Confirmed* Metals-Priority Pollutants & Other, PCB, Petroleum Products, Conventional Contaminants-Organic		*Suspected* Metals-Priority Pollutants & Other, PCB, Petroleum Products, Conventional Contaminants-Organic	C-11
5991749	Heraldo Residence	8856 16th Avenue SW	98106	*Remediated* Metals-Priority Pollutants Petroleum Products *Below Cleanup Levels* Metals-Other Non-Halogenated Solvents			*Suspected* Metals-Priority Pollutants & Other, Petroleum Products, Non-Halogenated Solvents		C-85
3121499	King Residence	6518 16th Avenue SW	98106	*Confirmed* Petroleum Products	*Confirmed* Petroleum Products	*Confirmed* Petroleum Products			37
2511	Kruse Construction	5609-5611 Delridge Way SW	98106	*Remediated* Petroleum Products					C-56
2091	Nucor Steel Seattle Inc	2424 SW Andover Street	98106	*Suspected* Base/Neutral Organics, Phenolic Compounds, Conventional Contaminants-Organic *Confirmed* Halogenated Organics, Metals-Priority Pollutants & Other, PCB, Petroleum Products, Non-Halogenated Solvents, PAH, Conventional Contaminants-Inorganic	*Confirmed* Halogenated Organics Metals-Priority Pollutants & Other, Petroleum Products, PAH, Conventional Contaminants-Inorganic	*Suspected* Halogenated Organics, PCB, Conventional Contaminants-Inorganic *Confirmed* Metals-Priority Pollutants & Other, Petroleum Products, Phenolic Compounds, Non-Halogenated Solvents-PAH		*Confirmed* Halogenated Organics, Metals-Priority Pollutants & Other, PCB, Petroleum Products, PAH, Conventional Contaminants-Inorganic	C-38
81566291	Rowe Property	3848 22nd Avenue SW	98106	*Suspected* Metals-Other *Below Cleanup Levels* Metals-Priority Pollutants					C-35
6328035	Saltys Properties	4701 Delridge Way SW	98106	*Confirmed* Petroleum Products					C-73
2454	Seattle Commerce Center	Delridge Way SW & SW Andover Street	98106	*Suspected* Petroleum Products, Non-Halogenated Solvents *Confirmed* Metals-Priority Pollutants	*Confirmed* Metals-Priority Pollutants, Non-Halogenated Solvents				C-37
2092	Seattle Steel Cooling Pond	28th Avenue SW & SW Andover Street	98124					*Confirmed* Petroleum Products *Remediated* PCB	C-42
2992026	Seattle White Center Corps Community Center	9050 16th Avenue SW	98106	*Confirmed* Petroleum Products					C-90
2384	SW Harbor Proj BN Buckley Yard	26th Avenue SW & SW Spokane Street	98134	*Confirmed* Metals-Priority Pollutants, PCB, Petroleum Products, PAH	*Suspected* Metals-Priority Pollutants, PCB, Petroleum Products, PAH	*Suspected* Metals-Priority Pollutants, PCB, Petroleum Products, PAH			C-1

Table D-4
Facilities within the Chelan CSO Basin
Listed on Ecology's Confirmed or Suspected Contaminated Site List

Facility/ Site ID	Facility Name	Facility Address	Zip	Soil	Groundwater	Surface Water	Air	Sediment	Map ID[1]
2388	SW Harbor Proj Lockheed Yard 2	2330 SW Florida Street	98106	*Confirmed* Base/Neutral Organics, Metals-Priority Pollutants, PCB, Petroleum Products, PAH	*Confirmed* Base/Neutral Organics, Metals-Priority Pollutants, PCB, Petroleum Products, PAH	*Confirmed* Base/Neutral Organics, Metals-Priority Pollutants, PCB, PAH		*Confirmed* Base/Neutral Organics, Metals-Priority Pollutants, PCB, Petroleum Products, PAH, Tributyl Tin	C-17
2385	SW Harbor Proj Salmon Bay	26th Avenue SW & SW Spokane Street	98134	*Confirmed* Metals-Priority Pollutants, PCB, Petroleum Products	*Confirmed* Metals-Priority Pollutants, PCB, Petroleum Products	*Suspected* Metals-Priority Pollutants, PCB, Petroleum Products			C-21
2386	SW Harbor Proj Seattle Steel	Harbor Avenue SW & SW Hanford Street	98134	*Confirmed* Metals-Priority Pollutants & Other, PCB, Petroleum Products, Conventional Contaminants, Organic	*Confirmed* Metals-Priority Pollutants & Other, PCB, Petroleum Products, Conventional Contaminants, Organic	*Confirmed* Metals-Priority Pollutants & Other, PCB, Petroleum Products, Conventional Contaminants, Organic		*Suspected* Metals-Priority Pollutants & Other, PCB, Petroleum Products, Conventional Contaminants, Organic	C-12
2387	SW Harbor Proj Wyckoff	West Marginal Way SW & SW Florida Street	98134	*Confirmed* Metals-Priority Pollutants, PCB, PAH	*Suspected* Metals-Priority Pollutants, PCB, PAH	*Suspected* Metals-Priority Pollutants, PCB, PAH		*Suspected* Metals-Priority Pollutants, PCB *Confirmed* PAH	C-6
2383	SW Harbor Project	2330 SW Florida Street	98106	*Suspected* Conventional Contaminants- Organic *Confirmed* Metals-Priority Pollutants, PCB, Petroleum Products, PAH	*Suspected* Metals-Priority Pollutants, PCB, Petroleum Products, PAH, Conventional Contaminants- Organic	*Suspected* Conventional Contaminants- Organic *Confirmed* Metals-Priority Pollutants, PCB, Petroleum Products, PAH	*Suspected* Metals-Priority Pollutants, PCB, Petroleum Products, PAH, Conventional Contaminants- Organic	*Suspected* Conventional Contaminants- Organic *Confirmed* Metals-Priority Pollutants, PCB, Petroleum Products, PAH, Tributyl Tin	C-2
2061	SW Harbor Project Terminal 5	26th Avenue SW & West Marginal Way SW	98106		*Confirmed* Halogenated Organics, Metals-Priority Pollutants, Pesticides, Petroleum Products, Phenolic Compounds			*Confirmed* Halogenated Organics, Metals-Priority Pollutants, PCB Pesticides, Petroleum Products, Phenolic Compounds, Tributyl Tin	C-19
73333527	Sylvan Way Land Co Sand Pit	6901 Sylvan Way SW	98106	*Confirmed* Metals-Priority Pollutants, Petroleum Products					C-65
18651532	USPS Westwood Station	2721 SW Trenton Street	98126	*Confirmed* Petroleum Products	*Confirmed* Petroleum Products				C-83
146	Wycoff Co West Seattle	2801 SW Florida Street	98126	*Suspected* Petroleum Products, Phenolic Compounds, Conventional Contaminants- Organic & Inorganic Confirmed Halogenated Organics, Metals-Priority Pollutants & Other, PAH	*Suspected* Petroleum Products, Phenolic Compounds, Conventional Contaminants- Organic & Inorganic Confirmed Halogenated Organics, Metals-Priority Pollutants & Other, PAH	*Suspected* Petroleum Products, Phenolic Compounds, Conventional Contaminants- Organic & Inorganic Confirmed Halogenated Organics, Metals-Priority Pollutants & Other, PAH	*Suspected* Halogenated Organics, Metals-Priority Pollutants & Other, Petroleum Products, Phenolic Compounds, PAH Conventional Contaminants- Organic & Inorganic		C-9

1 - See Appendix D, Figure D

Table D-5
Facilities in the Chelan CSO Basin with NPDES Permits

Facility/ Site ID	Facility Name	Facility Address	Zip	NPDES	Map ID[1]
8456079	Chicago Junk Machinery Co	13 3rd Avenue S	98902	WAR011190	C-10
23218	Denny Middle School/Chief Sealth High School	2600 SW Thistle Street	98124	WAR011054	C-80
2091	Nucor Steel Seattle Inc	2424 SW Andover Street	98106	WA0031305	C-38
66464199	Pioneer Industries Seattle	7000 Highland Parkway SW	98106	WAR001897	C-68
24997	Portvue Condominiums & Apartments	4040 26th Avenue SW	98106	WAR010464	C-45
12143	Seattle Housing High Point	High Point Neighborhood, Seattle	98126	WAR005376	C-61
37212955	WA DOT Fauntleroy Ferry Terminal	4829 SW Barton Street	98136	SO3001068	C-93
16265989	West Waterway Lumber Company	3546 West Marginal Way SW	98124	WAR004509	C-29

1 - See Appendix D, Figure D

Table D-6
Facilities in the Chelan CSO Basin with KCIW Discharge Permits

Facility/ Site ID	Facility Name	Facility Address	Zip Code	KCIW Discharge Permit	Map ID[1]
21777173	American President Lines Ltd	3443 West Marginal Way SW	98106	685-03	C-23
2091	Nucor Steel Seattle Inc	2424 SW Andover Street	98106	4012-02	C-38

1 - See Appendix D, Figure D

Table D-7
Properties in the Chelan CSO Basin with Leaking Underground Storage Tanks

Facility/ Site ID	Facility Name	Facility Address	Zip	UST Site ID	LUST Release ID	Media	Release Status	Release Status Change Date	Map ID[1]
63938375	Chevron Service Station 21-1551	7132 Delridge Way SW	98106	3361	2885	GW, Soil	Cleanup Started	10/2/92	C-66
37878256	Corvair Forge	9255 16th Avenue SW	98106	200907	2628	Soil	Awaiting Cleanup	10/7/08	C-98
94132689	Happy Guests HQ	4703 Delridge Way SW	98106	434884	435053	Soil	Reported Cleaned Up	5/20/04	C-50
99157494	Home Depot 8944 Seattle	7345 Delridge Way SW	98106	10506	2044	Soil	Reported Cleaned Up	6/1/95	C-69
52372318	Klein Property	9066 Delridge Way SW	98106	518016	519122	Soil	Reported Cleaned Up	11/17/99	C-95
21915527	Lennys Fuel Co	9025 Delridge Way SW	98106	6919	4109	Soil	Reported Cleaned Up	1/10/01	C-89
16399536	Lennys Fuel Co UST 6911	9010 Delridge Way SW	98106	6911	2472	Soil	Reported Cleaned Up	6/1/95	C-91
94284279	Lockheed Shipbuilding Const	2330 SW Florida Street	98106	939	1294	GW, Soil	Cleanup Started	6/1/95	C-5
12355892	Martin Air Conditioning & Fuel Co Inc	2340 SW Spokane Street	98106	8163	1954	Soil	Reported Cleaned Up	4/27/00	C-27
54979167	Seattle Fire Station 11	1514 SW Holden Street	98106	7891	458904	Soil	Reported Cleaned Up	5/4/98	C-76
44532529	Seattle Fire Station 36	3600 23rd Avenue SW	98106	7901	1581	Soil	Reported Cleaned Up	9/1/98	C-26
28836539	Seattle Steel Inc UST 9779	4001 28th Avenue SW	98126	9779	1687	Soil	Cleanup Started	1/11/90	C-36
44862443	Sun Cor Holdings COPII LLC 2	2851 SW Roxbury Street	98126	9516	2675	GW, Soil	Awaiting Cleanup	6/1/95	C-102
39873726	Terminal 5	2805 26th Avenue SW	98106	6264	459353	Soil	Cleanup Started	6/9/98	C-13
					3984	Soil	Reported Cleaned Up	6/1/95	
18651532	USPS Westwood Station	2721 SW Trenton Street	98126	4564	2389	GW, Soil	Cleanup Started	6/1/95	C-83
43445813	WA CC South Seattle Community College	6000 16th Avenue SW	98106	5966	5966	Soil	Reported Cleaned Up	6/1/95	36

1 - See Appendix D, Figure D

Table D-8
Properties in the Chelan CSO Basin with Underground Storage Tanks

Facility/ Site ID	Facility Name	Facility Address	Zip	UST Site ID	Operational	Temporarily Closed	Removed	Closed-in-Place	Closure in Process	Change in Service	Exempt	Unknown	Map ID[1]
86294678	Boeing South Park Henderson	1600 S Henderson Street	98106	10415			3	1			2		C-88
63938375	Chevron Service Station 21-1551	7132 Delridge Way SW	98106	3361	2		4						C-66
16644871	Circle K 5925	9061 Delridge Way SW	98106	10356		4	5						C-92
37878256	Corvair Forge	9255 16th Avenue SW	98106	200907			4						C-98
79779728	Cottage Grove Shell Station	5445 Delridge Way SW	98106	433599	2								C-55
23213563	Delrdige ARCO AM PM	7301 Delridge Way SW	98106	9511	2		5						C-67
79884775	Forest Lawn Cemetary	6701 30th Avenue SW	98126	1515			3						C-57
67583579	Gas & Smoke Depot	9001 Delridge Way SW	98106	479642	1								C-86
94132689	Happy Guests HQ	4703 Delridge Way SW	98106	434884			3						C-50
25246743	Holy Family Church UST 12496	9622 20th Avenue SW	98102	12496							1		C-109
99157494	Home Depot 8944 Seattle	7345 Delridge Way SW	98106	10506			1						C-69
26197631	Jackpot Station 247	5235 Delridge Way SW	98106	4052	3								C-52
62891193	Joes Super Service	3817 Delridge Way SW	98106	9777				5					C-34
52372318	Klein Property	9066 Delridge Way SW	98106	518016			4						C-95
21915527	Lennys Fuel Co	9025 Delridge Way SW	98106	6919			8						C-89
16399536	Lennys Fuel Co UST 6911	9010 Delridge Way SW	98106	6911			3						C-91
94284279	Lockheed Shipbuilding Const	2330 SW Florida Street	98106	939			2						C-5
12355892	Martin Air Conditioning & Fuel Co Inc	2340 SW Spokane Street	98106	8163			3						C-27
66554824	Morel Foundry Corporation	3400 26th Avenue SW	98106	1696			1						C-24
53518129	Ole & Charles High & Dry Company	3568 West Marginal Way SW	98106	1356			1						C-30
54141464	Safeway Fuel Center 1923	9620 28th Avenue SW	98126	597924	3								C-107
6344311	Seattle City Webster Street	2300 SW Webster Street	98106	615003	1								C-71
54979167	Seattle Fire Station 11	1514 SW Holden Street	98106	7891			1						C-76
44532529	Seattle Fire Station 36	3600 23rd Avenue SW	98106	7901			1						C-26
28836539	Seattle Steel Inc UST 9779	4001 28th Avenue SW	98126	9779			3	1					C-36
24646867	Stans Mt View Towing	9000 Delridge Way SW	98106	5547			1						C-87
44862443	Sun Cor Holdings COPII LLC 2	2851 SW Roxbury Street	98126	9516	3		1						C-102
39873726	Terminal 5	2805 26th Avenue SW	98106	6264			6		1				C-13
18651532	USPS Westwood Station	2721 SW Trenton Street	98126	4564	1		1						C-83
43445813	WA CC South Seattle Community College	6000 16th Avenue SW	98106	5966		8	19			3			36
25487741	West Seattle Community Hospital	2600 SW Holden Street	98126	10914			1						C-53
16265989	West Waterway Lumber Company	3546 West Marginal Way SW	98124	1524			2						C-29
69998834	Westside Free Methodist Church	2615 SW Holden Street	98126	102231					5				C-77
48346621	White Center Texaco	1505 SW Roxbury Street	98106	1325	5		4						C-108
146	Wycoff Co West Seattle	2801 SW Florida Street	98126	3554			1	2					C-9
15358885	Zion Auto Rebuilds	5402 Delridge Way SW	98106	11234			4						C-54

1 - See Appendix D, Figure D

Table D-9
Facilities in the Chelan CSO Basin that are listed on Ecology's No Further Action List

Facility/ Site ID	Facility Name	Facility Address	Zip	NFA Date	NFA Type	Map ID[1]
23213563	Delrdige ARCO AM PM	7301 Delridge Way SW	98106	9/16/01	NFA after assessment, IRAP or VCP	C-67
5991749	Heraldo Residence	8856 16th Avenue SW	98106	1/27/99	Removed from Hazardous Sites List	C-85
2511	Kruse Construction	5609-5611 Delridge Way SW	98106	3/19/95	NFA after assessment, IRAP or VCP	C-56
81566291	Rowe Property	3848 22nd Avenue SW	98106	1/9/03	NFA after assessment, IRAP or VCP	C-35
2092	Seattle Steel Cooling Pond	28th Avenue SW & SW Andover Street	98124	4/18/94	NFA after assessment, IRAP or VCP	C-42
2992026	Seattle White Center Corps Community Cen	9050 16th Avenue SW	98106	5/12/04	NFA after assessment, IRAP or VCP	C-90
73333527	Sylvan Way Land Co Sand Pit	6901 Sylvan Way SW	98106	11/29/2005	NFA after assessment, IRAP or VCP	C-65

1 - See Appendix D, Figure D
IRAP - Independent Remedial Action Plan
NFA - No Further Action
VCP - Voluntary Cleanup Program

Table D-10
SIC and NAICS Codes for Facilities within the Chelan CSO Basin that are Listed in the Ecology Facility/Site Database

Facility/ Site ID	Facility Name	Address	Zip	SIC Code	SIC Description	NAICS Code	NAICS Description	Map ID[1]
3123614	21st Ave W Seattle	3602 21st Avenue W	98199	9999	Nonclassifiable Establishments	92411	Administration of Air & Water Resource & Solid Waste Management Programs	C-32
41538262	28th Ave SW	4209 28th Avenue SW	98106	9999	Nonclassifiable Establishments	92411	Administration of Air & Water Resource & Solid Waste Management Programs	C-46
5589	7533 29th Ave SW Site	7533 29th Avenue SW	98126			99999	Nonclassifiable Establishments	C-75
76433239	Airtouch Cellular Seattle MTSO	6901 West Marginal Way SW	98106	4812	Radiotelephone Communications			C-25
35245957	Airtouch Riverside	3433 West Marginal Way SW	98106	4812	Radiotelephone Communications			C-28
7684394	Albertos Fiberglass Boat Repair Inc	4266 20th Avenue SW	98119					C-47
21777173	American President Lines Ltd	3443 West Marginal Way SW	98106	4412	Deep Sea Foreign Transport of Freight	483212 483111	Inland Water Passenger Transportation Deep Sea Freight Transportation	C-23
44442952	Anacomp Inc Andover	2414 SW Andover Street Building E, Suite 100	98106	7389	Business Services, Nec	51421 51821	Data Processing Services Data Processing, Hosting and Related	C-40
6723598	AT&T Seattle 27th	9455 27th Avenue SW	98126	483	Water Transportation			C-101
8742315	AT&T Yancy Street	2806 SW Yancy Street	98126	4813	Telephone Communications, Exc. Radic			C-44
63147939	Avalon VW Auto Sales Inc	9420 16th Avenue SW	98106	9999	Nonclassifiable Establishments	44111	New car dealers	C-100
86294678	Boeing South Park Henderson	1600 S Henderson Street	98106					C-88
63938375	Chevron Service Station 21-1551	7132 Delridge Way SW	98106	5541 9999	Gasoline Service Stations Nonclassifiable Establishments	44711 4471	Gasoline Stations with Convenience Stores Gasoline Stations	C-66
8456079	Chicago Junk Machinery Co	13 3rd Avenue S	98902	5093	Scrap and Waste Materials			C-10
16644871	Circle K 5925	9061 Delridge Way SW	98106	5541	Gasoline Service Stations	44711	Gasoline Staions With Concenience Stores	C-92
37878256	Corvair Forge	9255 16th Avenue SW	98106	753	Automotive Repair Shops	811111	General Automotive Repair	C-98
79779728	Cottage Grove Shell Station	5445 Delridge Way SW	98106					C-55
33316419	Crowley Marine Services Pier 2	2900 SW Florida Street	98126	4449 4491 9999	Water Transportation of Freight Marine Cargo Handling Nonclassifiable Establishements	483211	Inland Water Freight Transportation	C-8
23213563	Delrdige ARCO AM PM	7301 Delridge Way SW	98106					C-67
85253557	Delridge Drug Lab	8630 Delridge Way SW Apt 102	98106	9511	Air, Water, & Solid Waste Management	92411	Administration of Air & Water Resource & Solid Waste Management Programs	C-82
23218	Denny Middle School/Chief Sealth High School	2600 SW Thistle Street	98124	1794	Excavating and Foundation Work			C-80
28166733	Dinol US Inc W Marginal Way	3480 W Marginal Way SW	98106	3537 4225 4412 4424 4492	Industrial Trucks and Tractors General Warehousing and Storage Deep Sea Foreign Transport of Freight Deep Sea Domestic Transport of Freight Towing and Tugboat Service	325998	All other Miscellaneous Chemical Product and Preparation Manufacturing	C-16
79884775	Forest Lawn Cemetary	6701 30th Avenue SW	98126					C-57
67583579	Gas & Smoke Depot	9001 Delridge Way SW	98106	7212 7216	Garment Pressing & Cleaners' Agents Drycleaning Plants, Except Rug	81232 447110	Drycleaning & Laundry Services (Except Coin-operated) Gasoline Stations with Convenience Stores	C-86
94132689	Happy Guests HQ	4703 Delridge Way SW	98106					C-50
2127	Harbor Avenue Landfill	Harbor Avenue SW & SW Florida Street	98126	4953	Landfill			C-11
38884519	Heckett Multiserv Plant 30	2424 SW Andover Street	98106	3295	Minerals, Ground or Treated			C-39
5991749	Heraldo Residence	8856 16th Avenue SW	98106					C-85
1949107	High Point Redevelopment Stormwater Dam	High Point Neighborhood, Seattle	98126					C-58
3894935	Historic Cooper School LLC Cultural Ctr	4408 Delridge Way SW	98106	9611	Administration of General Economic Programs	926110	Administration of General Economic Programs	C-49
25246743	Holy Family Church UST 12496	9622 20th Avenue SW	98102					C-109
5206873	Home Depot 8944	24th Avenue SW at SW Webster Street	98106					C-72
99157494	Home Depot 8944 Seattle	7345 Delridge Way SW	98106	5311	Department Stores	44411 444110	Home Centers Home Centers	C-69
26197631	Jackpot Station 247	5235 Delridge Way SW	98106					C-52
62891193	Joes Super Service	3817 Delridge Way SW	98106					C-34
3121499	King Residence	6518 16th Avenue SW	98106	88	Private Households	NA	NA	37
89749329	Kits Cameras 1031	2500 SW Barton Street	98106	7384	Photofinishing Laboratories	812922	One Hour Photofinishing	C-96
52372318	Klein Property	9066 Delridge Way SW	98106					C-95
2511	Kruse Construction	5609-5611 Delridge Way SW	98106	9999	Nonclassifiable Establishments	23891	Site Preparation Contractors	C-56

Table D-10
SIC and NAICS Codes for Facilities within the Chelan CSO Basin that are Listed in the Ecology Facility/Site Database

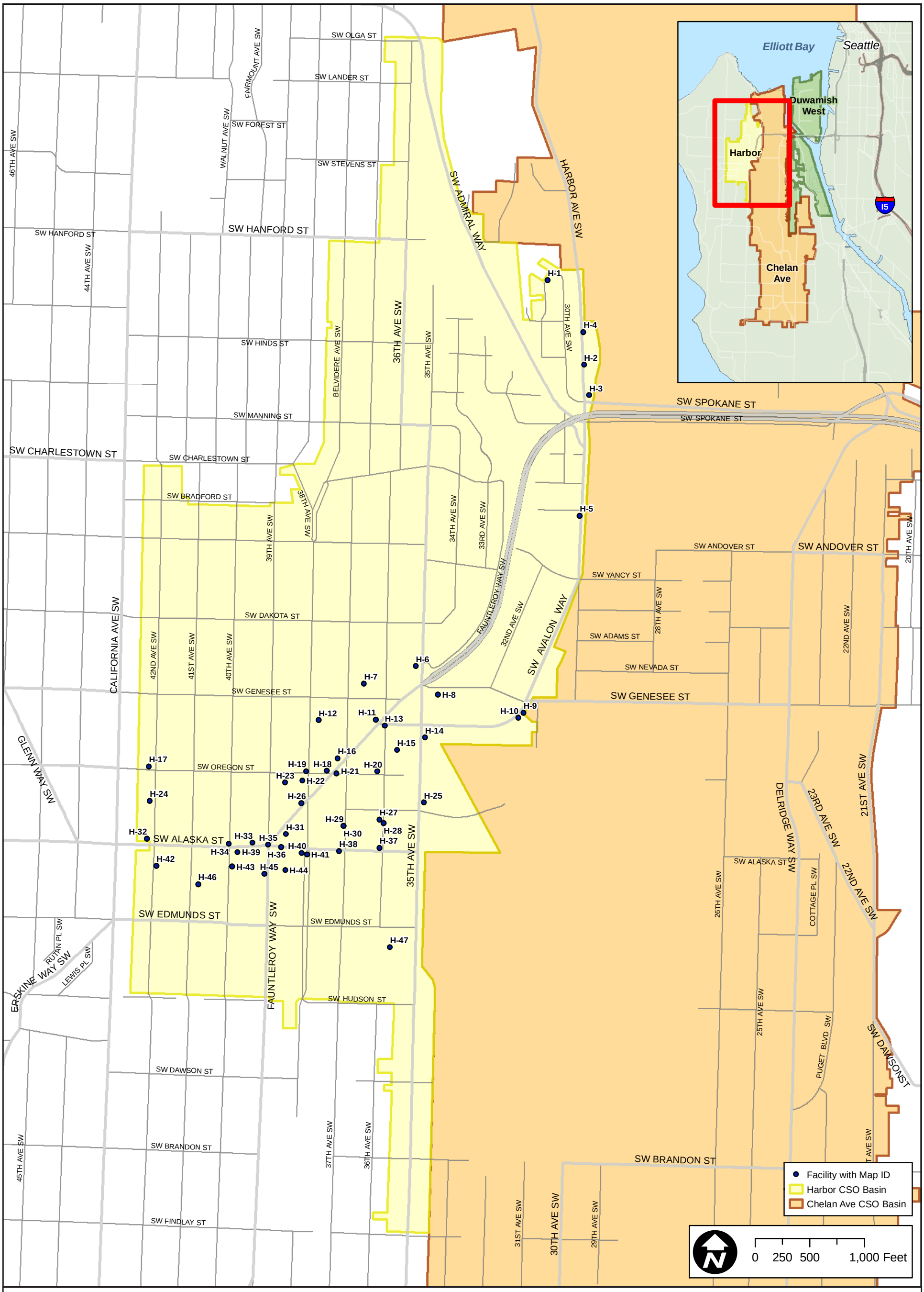
Facility/ Site ID	Facility Name	Address	Zip	SIC Code	SIC Description	NAICS Code	NAICS Description	Map ID[1]
21915527	Lennys Fuel Co	9025 Delridge Way SW	98106	5983	Fuel Oil Dealers	454311	Heating Oil Dealers	C-89
16399536	Lennys Fuel Co UST 6911	9010 Delridge Way SW	98106					C-91
94284279	Lockheed Shipbuilding Const	2330 SW Florida Street	98106	9999	Nonclassifiable Establishments	33611	Ship and Boat Building	C-5
12355892	Martin Air Conditioning & Fuel Co Inc	2340 SW Spokane Street	98106					C-27
24489955	Morel Foundry Corp	3400 26th Avenue SW	98106	3365	Aluminum Foundries	331524	Aluminum Foundries (Except Die-casting)	C-22
66554824	Morel Foundry Corporation	3400 26th Avenue SW	98106					C-24
33433876	NU Tone Cleaners Inc	9654 17th Avenue SW	98106	7216	Drycleaning Plants, Except Rug Cleaning	81232	Drycleaning and Laundry Services	C-110
2091	Nucor Steel Seattle Inc	2424 SW Andover Street	98106	3295 33 3312 1794 3399	Minerals, Ground or Treated Primary Metal Industries Steel Works, Blast Furnaces (including Coke Ovens), & Rolling Mills Excavation Work Primary Metal Products, NEC	33111 12123 332618 331221 23890	Iron & Steel Mills Nonmetallic Mineral Mining & Quarrying Other Fabricated Wire Product Manufacturing Rolled Steel Shape Manufacturing Site Preparation Contractors	C-38
53518129	Ole & Charles High & Dry Company	3568 West Marginal Way SW	98106					C-30
17567	Olympic Tug and Barge Port of Seattle Terminal 5	26th Avenue SW & Florida Avenue SW	98134					C-15
78325494	Penske Auto Center 4225	7345 Delridge Way SW Shop Only	98106	7538	General Automotive Repair Shops			C-70
66464199	Pioneer Industries Seattle	7000 Highland Parkway SW	98106	 3399 3444 3499	Primary Metal Products Primary Metal Products, NEC Sheet Metal Products, NEC	332812	Metal Coating, Engraving	C-68
24997	Portvue Condominiums & Apartments	4040 26th Avenue SW	98106	1794	Excavating and Foundation Work			C-45
59615727	Puget Sound Auto Ctr	2827 SW Roxbury Street	98126	9999 7538	Nonclassifiable Establishment General Automotive Repair Shops	811111	General Automotive Repair	C-103
2231481	Purdy Co of Illinois	2929 SW Florida Street	98126	5093	Scrap and Waste Materials	42393	Recyclable Material Merchant Wholesalers	C-7
14737168	Rite Aid 5220	9071 Westwood Village Way SW	98126	7384	Photofinishing Laboratories Drug Stores and Propietary Stores	812922 446110	One-Hour Photofinishing Pharmcies & Drug Stores	C-51
81566291	Rowe Property	3848 22nd Avenue SW	98106					C-35
54141464	Safeway Fuel Center 1923	9620 28th Avenue SW	98126					C-107
71612388	Salmon Bay Steel Surplus Machine	2467 SW Andover Street	98106	9999	Nonclassifiable Establishments	81131	Commercial & Industrial Machinery & Equipment (Except Automotive & Electronic) Repair & Maintenance	C-41
6328035	Saltys Properties	4701 Delridge Way SW	98106					C-73
85222758	Seattle City Admiral Way Bridge	SW Admiral Way between Handford & Harbor Avenue SW	98126	9199	General Government, NEC	92119	Other General Government Support	C-33
88479511	Seattle City Spokane St Swing Brg	3600 West Marginal Way SW	98106	9199	General Government, NEC	92119	Other General Government Support	C-31
35637618	Seattle City SW Trenton PS Chlorination	4th Avenue SW & SW Trenton Street	98106	4941	Water Supply			C-78
85149752	Seattle City Used Oil Collect Graham St	3000 SW Graham Street	98126	9999	Nonclassifiable Establishments	92411	Administration of Air & Water Resource & Solid Waste Management Programs	C-63
6344311	Seattle City Webster Street	2300 SW Webster Street	98106					C-71
14169776	Seattle City West Seattle Reservoir Chlorination	8th Avenue SW & SW Henderson Street	98106	4941	Water Supply			C-79
2454	Seattle Commerce Center	Delridge Way SW & SW Andover Street	98106	65	Real Estate			C-37
54979167	Seattle Fire Station 11	1514 SW Holden Street	98106					C-76
44532529	Seattle Fire Station 36	3600 23rd Avenue SW	98106					C-26
29279211	Seattle Housing Authority High Point	3020 SW Graham Street	98126	6514 9531	Dwelling Operators Exc. Apartments Housing Programs	92511	Administartion of Housing Programs	C-62
3495395	Seattle Housing Authority High Pt Revita	6550 32nd Avenue SW	98126					C-64
12143	Seattle Housing High Point	High Point Neighborhood, Seattle	98126	1794	Excavating and Foundation Work	212321	Constuction Sand and Gravel Mining	C-61
3780314	Seattle Port of Fishermans Terminal	3480 W Marginal Way SW	98106	NA	NA	325998	All Other Miscellaneous Chemical Product and Preparation Manufacturing	C-20
73614153	Seattle Port Pier 2	2400 Harbor Avenue SW	98126	4491 9199 4499	Marine Cargo Handling General Government, NEC Water Transportation Services, NEC	48832 4883 921190	Marine Cargo Handling Support Activities for Water Transportation Other General Government Support	C-3
52224676	Seattle Port Terminal 5	2505 26th Avenue SW	98106	4499 9199 4231	Water Transportation Services, NEC General Government, NEC Terminal & Joint Terminal Maintenance Facilities for Motor Freight Transportation	48849 92119	Other Support Activities for Road Transport Other General Government Support	C-14
5977653	Seattle Public Utilities Sewer Drain	16th Avenue SW & Delridge Way SW	98106			237110	Water and Sewer Line And Related	C-105

Table D-10
SIC and NAICS Codes for Facilities within the Chelan CSO Basin that are Listed in the Ecology Facility/Site Database

Facility/ Site ID	Facility Name	Address	Zip	SIC Code	SIC Description	NAICS Code	NAICS Description	Map ID[1]
16344846	Seattle School Dist 1 L Boren Cooper	5950 Delridge Way SW	98106	9999	Nonclassifiable Establishments	61111	Elementary and Secondary Schools	C-59
2513352	Seattle School Dist 1 Sealth HS	2600 SW Thistle Street	98126	8211	Elementary and Secondary Schools	61111	Elementary and Secondary Schools	C-81
511630	Seattle SD Boren Building	5959 Delridge Way SW	98106			61111	Elementary and Secondary Schools	C-60
2092	Seattle Steel Cooling Pond	28th Avenue SW & SW Andover Street	98124	33	Primary Metal Industries			C-42
2493982	Seattle Steel Inc	4045 Delridge Way SW	98106	9999	Nonclassifiable Establishments	23721	Land Subdivision	C-43
28836539	Seattle Steel Inc UST 9779	4001 28th Avenue SW	98126					C-36
2992026	Seattle White Center Corps Community Cen	9050 16th Avenue SW	98106					C-90
4989075	Sno Pac Products Inc	Chelan Avenue						C-18
77229417	Southend Autobody	9439 17th Avenue SW	98106	7532	Top & Body Repair & Paint Shops			C-99
37445949	Southwest Genesee Street Detention Dam		98121					C-48
24646867	Stans Mt View Towing	9000 Delridge Way SW	98106					C-87
44862443	Sun Cor Holdings COPII LLC 2	2851 SW Roxbury Street	98126	5541	Gasoline Service Stations	44711 44719	Gasoline Stations With Convenience Stores Other Gasoline Stations	C-102
2385	SW Harbor Proj Salmon Bay	26th Avenue SW & SW Spokane Street	98134					C-21
2384	SW Harbor Proj BN Buckley Yard	26th Avenue SW & SW Spokane Street	98134	4013	Railroad Switching & Terminal Estab			C-1
2388	SW Harbor Proj Lockheed Yard 2	2330 SW Florida Street	98106	3731	Ship Building and Repairing			C-17
2386	SW Harbor Proj Seattle Steel	Harbor Avenue SW & SW Hanford Street	98134	4953	Landfill			C-12
2387	SW Harbor Proj Wyckoff	West Marginal Way SW & SW Florida Str	98134	2491	Wood Preserving			C-6
2383	SW Harbor Project	2330 SW Florida Street	98106					C-2
2061	SW Harbor Project Terminal 5	26th Avenue SW & West Marginal Way S	98106					C-19
24777431	SW Webster Street Detention Basin		98121					C-74
73333527	Sylvan Way Land Co Sand Pit	6901 Sylvan Way SW	98106					C-65
6481404	Target Store 0637	2800 SW Barton Street	98126	5311	Department Stores	452112	Discount Department Stores	C-94
39873726	Terminal 5	2805 26th Avenue SW	98106					C-13
9724897	US Army Corps of Engineers Duwamish							C-4
1578942	US Postal Service Seattle	2721 SW Trenton Street	98126					C-84
18651532	USPS Westwood Station	2721 SW Trenton Street	98126	4311	US Postal Service	491110	Postal Service	C-83
79487297	Vans Auto Rebuild	9226 15th Avenue SW	98106	9999 7532	Nonclassifiable Establishments Top, Body, & Upholstery Repair Shops & Paint Shops	811121	Automotive Body, Paint, & Interior Repair & Maintenance.	C-97
43445813	WA CC South Seattle Community College	6000 16th Avenue SW	98106	7538 8222 8249 5541	General Automotive Repair Shops Junior Colleges Vocational Schools, NEC Gasoline Service Stations	611210 61131 811111 4471 61151	Junior Colleges Colleges, Universities, and Professional General Automotive Repair Gasoline Stations Technical and Trade Schools	36
37212955	WA DOT Fauntleroy Ferry Terminal	4829 SW Barton Street	98136	4499 4482	Water Transportation Services Ferries	48321	Inland Water Transportation	C-93
95193417	Walts Radiator & Muffler Roxbury	1702 SW Roxbury Street	98106	7533 7539	Auto Exhaust System Repair Shops Automotive Repair Shops, Nec	8111 811112	Automotive Repair& Maintenance Automotive Exhaust System Repair	C-106
25487741	West Seattle Community Hospital	2600 SW Holden Street	98126	9999	Nonclassifiable Establishments	62211	General Medical & Surgical Hospitals	C-53
16265989	West Waterway Lumber Company	3546 West Marginal Way SW	98124	3731 4492	Ship Building and Repairing Towing & Tugboat Services	48833 212321	Navigational Services to Shipping Construction Sand & Gravel Mining	C-29
69998834	Westside Free Methodist Church	2615 SW Holden Street	98126					C-77
45897225	White Center Barrels	2601 SW Roxbury Street	98126	9999	Nonclassifiable Establishments	92411	Administration of Air & Water Resource & Solid Waste Management Programs	C-104
48346621	White Center Texaco	1505 SW Roxbury Street	98106					C-108
146	Wycoff Co West Seattle	2801 SW Florida Street	98126	2391 9199	Wood Preserving General Government, Not Elsewhere Classified	321114 92119	Wood Preservation Other General Government Support	C-9
15358885	Zion Auto Rebuilds	5402 Delridge Way SW	98106	554 753	Gasoline Service Stations Automotive Repair Shops			C-54

1 - See Appendix D, Figure D
NAICS - North American Industry Classification System
SIC - Standard Industrial Classification

Appendix E
Harbor CSO Basin Map and Facilities



DEPARTMENT OF ECOLOGY
State of Washington

Figure E. Harbor CSO Basin

SAIC
From Science to Solutions

Table E-1
Facilities within the Harbor CSO Basin that are Listed in the Ecology Facility/Site Database

Facility/ Site ID	Facility Name	Alternate Name(s)	Facility Address	Zip Code	Active EPA ID No.	Ecology CSCSL	NPDES Permit	LUST	UST	Ecology NFA	Map ID[1]
78535435	AA Rentals West Seattle	None	4722 Fauntleroy Way SW	98116		●				●	H-44
66549657	Active Environmental Inc	None	3245 SW Avalon Way	98126							H-9
25939314	Alaska House	None	4545 42nd Avenue SW	98116							H-24
1836368	Alaska Square Associates	Alaska Square Associates, Tidewater Oil Service Station, West Seattle Junction Property (shared building)	4200 SW Alaska Street	98116					●		H-32
39196282	Alaska Street Texaco	None	3901 SW Alaska Street	98116		●		●	●		H-39
8217354	AT&T Wireless Alaska Junction	Huling Bros Buick Mazda, Huling Bros Buick Inc	4545 Fauntleroy Way SW	98116							H-23
99437681	BP Service Station 11060	BP 1106030124, BP Service Station Fauntleroy, ConocoPhillips 30124, TOSCO 11060-30124, MISHA 76	4580 Fauntleroy Way SW	98126				●	●		H-31
44666249	Doyles Automotive Service Inc	None	4607 37th Avenue SW	98126				●	●		H-30
17194226	Elliott Tire	None	4441 Fauntleroy Way SW	98126							H-13
24144	Fauntleroy Place	Seattle City Used Oil Collect Alaska St	3908 SW Alaska Street	98116			●				H-36
7882576	Fauntleroy Plaza	None	4151 Fauntleroy Way SW	98126		●				●	H-7
7879645	Gene Fielder Chevrolet	None	4734 40th Avenue SW	98116							H-46
2336	GT Towing	None	3252 Harbor Avenue SW	98126		●				●	H-3
23587357	Hancock Fabrics	Walgreen's #0409	3922 SW Alaska Street	98116		●			●	●	H-33
77521393	Harbor Ave SW Site	None	3310 Harbor Avenue SW	98126							H-4
43881387	House of Kleen Inc	None	4425 Fauntleroy Way SW	98126		●					H-11
30616213	Huling Bros Buick Mazda	Huling Bros Buick Inc, AT&T Wireless Alaska Junction (shared address)	4545 Fauntleroy Way SW	98116					●		H-21
26131615	Huling Bros Chevrolet	Chick Lecuyer R&W Chevrolet Inc	4755 Fauntleroy Way SW	98118					●		H-40
96322842	Huling Bros Chrysler Plymouth Jeep Eagle	None	4550 38th Avenue SW	98116					●		H-22
58619333	Huling Bros Inc Body Shop	None	4724 40th Avenue SW	98116							H-43
82729481	James B Hartog	None	4609 37th Avenue SW	98126					●		H-26
42918918	John & Maria Campagnaro LLC	Campagnaro Estate	4721 38th Avenue SW	98126					●		H-45
51248918	Jones Building	None	4608 36th Avenue SW	98126				●	●		H-28
45662127	Kits Camera 1029	Ritz Camera Center 1029	4726 42nd Avenue SW	98116	●						H-42
70691452	Knockout Auto Repair	None	3600 SW Alaska Street	98126							H-37
16399	Lien Animal Clinic	None	3710 SW Alaska Street	98126		●				●	H-38
72998672	Midas Muffler & Brake Shop Seattle	None	4457 Fauntleroy Way SW	98126				●	●		H-16
35691457	Municipality of Metro Seattle	Heckett Division of HARSCO, Heckett Plant 32	3204 Harbor Avenue SW	98124	●				●		H-1
25384974	Precision Tune Alaska St	Precision Tune UST 100868	4000 SW Alaska Street	98116							H-34
57789564	Providence Mount St Vincent	None	4831 35th Avenue SW	98126					●		H-47
81635268	Quality Auto Rebuild	None	4623 36th Avenue SW	98126							H-27
51413945	Rossoe Oil Bulk	None	4613 37th Avenue SW	98126				●	●		H-29
4008	Seattle City Light Avalon Substation	None	3301 SW Genessee St	98126	●						H-8
51763345	Seattle City Parks Lincoln Park	None	7501 Fauntleroy Way SW	98126							H-6
45411821	Seattle City Used Oil Collect Alaska St	Fauntleroy Place	3908 SW Alaska Street	98116							H-35
35315447	Seattle Fire Station 32	None	3715 SW Alaska Street	98126					●		H-41
35259244	Southland Corp 22561	7 Eleven Store 22561, 7-Eleven 2307-22561A	4414 35th Avenue SW	98126				●	●		H-14
68656785	Thoroughbred Collision Center W Seattle	West Seattle Auto Rebuild	4501 38th Avenue SW	98126							H-19
6895569	Tom Smiths Automotive Inc	None	3616 SW Oregon Street	98126							H-20

Table E-1
Facilities within the Harbor CSO Basin that are Listed in the Ecology Facility/Site Database

Facility/ Site ID	Facility Name	Alternate Name(s)	Facility Address	Zip Code	Active EPA ID No.	Ecology CSCSL	NPDES Permit	LUST	UST	Ecology NFA	Map ID[1]
74519144	Unocal SS No 3774	Seattle Monorail Project, UNOCAL 3774, Unocal SS No 3774, UNOCAL Station 3774 former	3295 SW Avalon Way	98126		●			●	●	H-10
94468422	West Fuel Site	Genesee Fuel West Fuel Site, HB Enterprises LLC II, Parcel WS232 West Fuel Company	4455 35th Avenue SW	98126	●	●			●		H-15
5384468	West Seattle Assoc Inc	None	4217 SW Oregon Street	98116							H-17
55582696	West Seattle Cleaners	None	4528 Fauntleroy Way SW	98126							H-18
4436544	West Seattle Golf Course 92	None	4470 35th Avenue SW	98126				●	●		H-25
51972184	West Seattle Radiator Service	None	4460 37th Avenue SW	98126							H-12
96745657	West Seattle Recycling Inc	None	2964 SW Avalon Way	98126				●	●		H-5
2062	Zandt Brass Foundry	Cascade Foundry	3400 Harbor Avenue SW	98126		●				●	H-2

1 - See Appendix E, Figure E

EPA - U.S. Environmental Protection Agency

CSCSL - Confirmed or Suspected Contaminated Sites List

NPDES - National Pollutant Discharge Elimination System

LUST - Leaking Underground Storage Tank

UST - Underground Storage Tank

NFA - No Further Action

Table E-2
Property Information for Facilities in the Harbor CSO Basin with Ecology Facility/Site Identification Numbers

Facility/ Site ID	Facility Name	Address	Zip	Parcel	Property Owner	Acreage (acres, sq ft)	Buildings (year built, sq ft)	Map ID
78535435	AA Rentals West Seattle	4722 Fauntleroy Way SW	98116	6126600435: 4712 Fauntleroy Way SW	John & Maria Campagnaro LLC	0.62 a, 27,000 sq ft	B-1 : 1959, 8,134 sq ft	H-44
66549657	Active Environmental Inc	3245 SW Avalon Way	98126	9297301976: 3233 SW Avalon Way	Avalon Ventures LLC	0.49 a, 21,228 sq ft	B-1: 1999, 48,250 sq ft	H-9
25939314	Alaska House	4545 42nd Avenue SW	98116	0952006465: 4539 42nd Avenue SW	Alaska House Affliates LLC	0.40 a, 17,606 sq ft	B-1: 1976, 54,912 sq ft	H-24
1836368	Alaska Square Associates	4200 SW Alaska Street	98116	0952006755: 4100 SW Alaska Street	CAPCO Investments Inc	0.94 a, 40,777 sq ft	B-1: 2008, 181,566 sq ft	H-32
39196282	Alaska Street Texaco	3901 SW Alaska Street	98116	6126600495	Key Corp R/E Cap Mkts	0.14 a, 6,232 sq ft	B-1: 1935, 2,433 sq ft	H-39
8217354	AT&T Wireless Alaska Junction	4545 Fauntleroy Way SW	98116	952007370	Huling Bros Prop LLC	0.62 a, 26,873 sq ft	B-1: 1946, 25,762 sq ft	H-23
99437681	BP Service Station 11060	4580 Fauntleroy Way SW	98126	952007430	Washington Petroleum Inc	0.19 a, 8,169 sq ft	B-1: 1985, 768 sq ft	H-31
44666249	Doyles Automotive Service Inc	4607 37th Avenue SW	98126	952007795	James B Hartog	0.13 a, 5,750 sq ft	B-1: 1966, 4,500 sq ft	H-30
17194226	Elliott Tire	4441 Fauntleroy Way SW	98126	952004580	GA Zacher	0.37 a, 16,136 sq ft	B-1: 1989, 6,848 sq ft	H-13
24144	Fauntleroy Place	3908 SW Alaska Street	98116	952007175	Fauntleroy Place LLC	0.5 a, 21,816 sq ft	Vacant	H-36
7882576	Fauntleroy Plaza	4151 Fauntleroy Way SW	98126	952004180	Neighborhood Development Corp	0.39 a, 17,135 sq ft	B-1: 1986, 7,000 sq ft	H-7
7879645	Gene Fielder Chevrolet	4734 40th Avenue SW	98116	6126600735: 4736 40th Avenue SW	Alki Masonic Temple Inc	0.80 a, 34,851 sq ft	B-1: 1950, 16,506 sq ft	H-46
2336	GT Towing	3252 Harbor Avenue SW	98126	7192800050: 3200 Harbor Avenue SW 7987400005: 3310 Harbor Avenue SW	0050: Eddie Richter 0005: Ed Richter Marketing	0050: 0.28 a, 12,000 sq ft 0005: 0.28 a, 12,021 sq ft	0005: B-1: 1914, 10,930 sq ft	H-3
23587357	Hancock Fabrics	3922 SW Alaska Street	98116	952007175: None 0952007265: None	7175: Fauntleroy Place LLC 7265: 3922 SW Alaska LLC	7175: 0.5 a, 21,816 sq ft 7265: 0.95 a, 41,336 sq ft	7175 & 7265: Vacant	H-33
77521393	Harbor Ave SW Site	3310 Harbor Avenue SW	98126	7987400005: 3310 Harbor Avenue SW 7192800050: 3200 Harbor Avenue SW	0050: Eddie Richter 0005: Ed Richter Marketing			H-4
43881387	House of Kleen Inc	4425 Fauntleroy Way SW	98126	0952004435: 4415 Fauntleroy Way SW 0952004420: SW Genesee Street	Fauntleroy KCK LLC	4420: 0.20 a, 8,625 sq ft 4435: 0.23 a, 9,935 sq ft	B-1: 1924, 3,793 sq ft	H-11
30616213	Huling Bros Buick Mazda	4545 Fauntleroy Way SW	98116	952007370	Huling Bros Prop LLC	0.62 a, 26,873 sq ft	B-1: 1946, 25,762 sq ft	H-21
26131615	Huling Bros Chevrolet	4755 Fauntleroy Way SW	98118	6126600555	Huling Bros Prop LLC	1.31 a, 57,000 sq ft	B-1: 1952, 27,545 sq ft	H-40
96322842	Huling Bros Chrysler Plymouth Jeep Eagle	4550 38th Avenue SW	98116	0952007715: 4550 38th Avenue SW 0952007705: None 0952007695: None 0952007685: 38th Avenue SW 0952007675: None 0952007660: 4536 38th Avenue SW	Harbor West Seattle LLC	7715: 0.11 a, 4,833 sq ft 7705: 0.13 a, 5,650 sq ft 7695: 0.13 a, 5,650 sq ft 7685: 0.13 a, 5,650 sq ft 7675: 0.13 a, 5,650 sq ft 7660: 0.19 a, 8,475 sq ft	7715: B-1: 2010, 145,089 sq ft	H-22
58619333	Huling Bros Inc Body Shop	4724 40th Avenue SW	98116	6126600755	Huling Bros Prop LLC	0.29 a, 12,422 sq ft	B-1: 1964, 7,000 sq ft	H-43
82729481	James B Hartog	4609 37th Avenue SW	98126	0952007795: 4607 37th Avenue SW 0952007796: 4613 37th Avenue SW	7795: James B Hartog 7796: James B & Nancy L Hartog	7795: 0.13 a, 5750 sq ft 7796: 0.13 a, 5750 sq ft	7795: B-1: 1966, 4,500 sq ft 7796: B-1: 1954, 336 sq ft	H-26
42918918	John & Maria Campagnaro LLC	4721 38th Avenue SW	98126	6126600275	John & Maria Campagnaro LLC	0.34 a, 15,000 sq ft		H-45
51248918	Jones Building	4608 36th Avenue SW	98126	0952008170 0952008165: 36th Avenue SW	Harbor West Seattle Three L	8170: 0.13 a, 5,750 sq ft 8165: 0.13 a, 5,750 sq ft	8170: B-1: 1942, 3,272 sq ft	H-28
45662127	Kits Camera 1029	4726 42nd Avenue SW	98116	7579200260: 4720 42nd Avenue SW	PK I HOLDCO LLC	3.22 a, 140,220 sq ft	B-1: 1987, 200,784 sq ft	H-42
70691452	Knockout Auto Repair	3600 SW Alaska Street	98126	952008107	Ken Olson	0.04 a, 1,588 sq ft	B-1 : 1958, 1,080 sq ft	H-37
16399	Lien Animal Clinic	3710 SW Alaska Street	98126	952007830	Timothy Kraabel	0.11 a, 4,949 sq ft	B-1: 2009, 4,130 sq ft	H-38
72998672	Midas Muffler & Brake Shop Seattle	4457 Fauntleroy Way SW	98126	0952007615:4528 Fauntleroy Way SW	Midas International Corporation	0.26 a, 11,442 sq ft	B-1: 1965, 4,050 sq ft	H-16
35691457	Municipality of Metro Seattle	3204 Harbor Avenue SW	98124	7192800050: 3200 Harbor Avenue SW 7987400005: 3310 Harbor Avenue SW	0050: Eddie Richter 0005: Ed Richter Marketing	0050: 0.28 a, 12,000 sq ft 0005: 0.28 a, 12,021 sq ft	0005: B-1: 1914, 10,930 sq ft	H-1
25384974	Precision Tune Alaska St	4000 SW Alaska Street	98116	0952006880 0952006850: 4022 SW Alaska Street	Safe Investments	6880: 0.32 a, 14,064 sq ft 6850: 0.34 a, 14,627 sq ft	6880: B-1: 1988, 3,620 sq ft 6850: B-1: 1988, 3,077 sq ft	H-34
57789564	Providence Mount St Vincent	4831 35th Avenue SW	98126	2324039001	Providence Mt. St. Vincent	8.72 a, 379, 843 sq ft	9001: B-1: 1922, 217,603 sq f	H-47
81635268	Quality Auto Rebuild	4623 36th Avenue SW	98126	952008105	Sherry Ann Schmieder	0.13 a, 5,750 sq ft	B-1: 1941, 2,400 sq ft	H-27
51413945	Rossoe Oil Bulk	4613 37th Avenue SW	98126	0952007795: 4607 37th Avenue SW 0952007796	7795: James B Hartog 7796: James B & Nancy L Hartog	7795: 0.13 a, 5750 sq ft 7796: 0.13 a, 5750 sq ft	7795: B-1: 1966, 4,500 sq ft 7796: B-1: 1954, 336 sq ft	H-29
4008	Seattle City Light Avalon Substation	3301 SW Genessee St	98126	9297301805: NA 9297301810: NA	Seattle City Light	1805: 0.11 a, 4,800 sq ft 1810: 0.11 a, 4,800 sq ft	0005: B-1: 1914, 10,930 sq ft	H-8
51763345	Seattle City Parks Lincoln Park	7501 Fauntleroy Way SW	98126	2624039006: 8603 Fauntleroy Way SW	Seattle Parks Department	50.51 a, 2,200,282 sq ft	B-1: 1983, 2,274 sq ft	H-6
45411821	Seattle City Used Oil Collect Alaska St	3908 SW Alaska Street	98116	0952007265: 39th Avenue SW	3922 SW Alaska LLC	0.95 a, 41,336 sq ft		H-35
35315447	Seattle Fire Station 32	3715 SW Alaska Street	98126	6126600036: 3701 SW Alaska Street	Pen Properties LLC	0.07a, 3,239 sq ft	B-1: 1955, 2,279 sq ft	H-41
35259244	Southland Corp 22561	4414 35th Avenue SW	98126	9297301820	7-Eleven LLC	0.40 a, 17,366 sq ft	B-1: 1980, 2,400 sq ft	H-14
68656785	Thoroughbred Collision Center W Seattle	4501 38th Avenue SW	98126	952007460	Miglorie Family L L C	0.33 a, 14,375 sq ft	B-1: 1946, 7,500 sq ft	H-19
6895569	Tom Smiths Automotive Inc	3616 SW Oregon Street	98126	0952004645 0952004655: None	Laramy Properties LLC	4645: 0.09 a, 3,750 sq ft 4655: 0.09a, 3,750 sq ft	4645: B-1: 1973,3,584 sq ft	H-20
74519144	Unocal SS No 3774	3295 SW Avalon Way	98126	9297302045	CT House LLC	0.31 a, 13,700 sq ft	B-1: 2009, 42,283 sq ft	H-10

Table E-2
Property Information for Facilities in the Harbor CSO Basin with Ecology Facility/Site Identification Numbers

Facility/ Site ID	Facility Name	Address	Zip	Parcel	Property Owner	Acreage (acres, sq ft)	Buildings (year built, sq ft)	Map ID
94468422	West Fuel Site	4455 35th Avenue SW	98126	0952004285: None 0952004300: None 0952004310: 4457 35th Avenue SW 0952004280: 4433 35th Avenue SW	4285 & 4300: Huling Bros Prop LLC 4310: HB Enterprises II LLC 4280: HB Enterprises LLC	4285: 0.20 a, 8,625 sq ft 4300: 0.13 a, 5,750 sq ft 4310: 0.13 a, 5,750 sq ft 4280: 0.26 a, 11,500 sq ft	B-1: 1926, 3,575 sq ft	H-15
5384468	West Seattle Assoc Inc	4217 SW Oregon Street	98116	0952006260: 4500 California Avenue SW	Senior Center of West Seattle	0.20 a, 8,625 sq ft	B-1: 1955, 14,936 sq ft	H-17
55582696	West Seattle Cleaners	4528 Fauntleroy Way SW	98126	0952007615 0952007600: 4520 Fauntleroy Way SW	Gregory K Chan	7615: 0.20 a, 5115 sq ft 7600: 0.20 a, 8,903 sq ft	7615: B-1: 1930, 1,462 sq ft 7600: B-1: 1930, 6,909 sq ft	H-18
4436544	West Seattle Golf Course 92	4470 35th Avenue SW	98126	1324039013: 4421 35th Avenue SW 1324039014: 4421 35th Avenue SW 2424039007: 5200 35th Avenue SW	Seattle Parks Department	9013: 25.53a, 1,111,938 sq ft 9014: 34.23a, 1,491,058 sq ft 9007: 132.10a, 5,754,275 sq ft	9013: B-1: 1961, 3,125 sq ft 9007: B-1: 1925, 5,300 sq ft	H-25
51972184	West Seattle Radiator Service	4460 37th Avenue SW	98126	0952004580: 4441 Fauntleroy Way SW	GA Zacher	0.37 a, 16,136 sq ft	B-1: 1989, 6,848 sq ft	H-12
96745657	West Seattle Recycling Inc	2964 SW Avalon Way	98126	1324039093: 2964 SW Avalon Way	Shurgard Storage Centers	0.80 a, 34,727 sq ft	B-1: 1997, 66,530 sq ft	H-5
2062	Zandt Brass Foundry	3400 Harbor Avenue SW	98126	7192800050	West Seattle Venture LLC	0.52 a, 22,762 sq ft	B-1: 2004, 35,176 sq ft	H-2

1 - See Appendix E, Figure E

Table E-3
Facilities in the Harbor CSO Basin with Active EPA Identification Numbers

Facility/ Site ID	Facility Name	Facility Address	Zip	EPA ID	Date	HWG	HW Mgmt	HW Planner	HW Transfer	Tier 2	TRI	Map ID[1]
45662127	Kits Camera 1029	4726 42nd Avenue SW	98116	WAR000001339	3/27/95	●						H-42
35691457	Municipality of Metro Seattle	3204 Harbor Avenue SW	98124	WAD980985733	1/1/90	●				●		H-1
4008	Seattle City Light Avalon Substation	3301 SW Genessee St	98126	WAH000037394	10/21/10							H-8
94468422	West Fuel Site	4455 35th Avenue SW	98126	CRK000058010	9/15/03					●		H-15

1 - See Appendix E, Figure E

HWG - Facilities that generate any quantity of hazardous waste

HW Other - Facilities that are required to have a RCRA Site ID, but do not generate or manage hazardous waste

HWP - Facilities that report under Section 313 of the Emergency Planning/Community Right-To-Know Act or that generate more than 2,640 pounds of hazardous waste per year.

Tier2 - Businesses that store 10,000 pounds or more of a hazardous chemical or 500 pounds or less, depending on the chemical, of an extremely hazardous chemical at any time must report annually.

TRI - Facilities in specific industries that manufacture, process or use more than the threshold amount of one or more of 600 listed toxic chemicals.

Table E-4
Facilities within the Harbor CSO Basin
Listed on Ecology's Confirmed or Suspected Contaminated Site List

Facility/ Site ID	Facility Name	Facility Address	Zip	Soil	Groundwater	Surface Water	Air	Map ID[1]
78535435	AA Rentals West Seattle	4722 Fauntleroy Way SW	98116	*Remediated* Petroleum Products				H-44
39196282	Alaska Street Texaco	3901 SW Alaska Street	98116	*Suspected* Metals-Priority Pollutants *Confirmed* Benzene Non-Halogenated Solvents Petroleum Products-Gasoline	*Suspected* Metals-Priority Pollutants *Confirmed* Benzene Non-Halogenated Solvents Petroleum Products-Gasoline			H-39
7882576	Fauntleroy Plaza	4151 Fauntleroy Way SW	98126	*Remediated* Petroleum Products	*Below Cleanup Levels* Petroleum Products			H-7
2336	GT Towing	3252 Harbor Avenue SW	98126	*Below Cleanup Levels* Petroleum Products				H-3
23587357	Hancock Fabrics	3922 SW Alaska Street	98116	*Confirmed* Petroleum Products-Gasoline				H-33
43881387	House of Kleen Inc	4425 Fauntleroy Way SW	98126	*Confirmed* Halogenated Organics Petroleum Products	*Confirmed* Halogenated Organics Petroleum Products			H-11
16399	Lien Animal Clinic	3710 SW Alaska Street	98126	*Confirmed* Petroleum Products				H-38
74519144	Unocal SS No 3774	3295 SW Avalon Way	98126	*Confirmed* Benzene Petroleum Products-Diesel, Gasoline & Other	*Confirmed* Benzene Petroleum Products-Diesel, Gasoline & Other			H-10
94468422	West Fuel Site	4455 35th Avenue SW	98126	*Confirmed* Metals-Priority Pollutants Petroleum Products	*Below Cleanup Levels* Petroleum Products	*Below Cleanup Levels* Petroleum Products		H-15
2062	Zandt Brass Foundry	3400 Harbor Avenue SW	98126	*Below Cleanup Levels* Metals-Priority Pollutants & Other	*Remediated* Metals-Priority Pollutants & Other	*Confirmed* Metals-Priority Pollutants & Other	*Confirmed* Metals-Priority Pollutants & Other	H-2

1 - See Appendix E, Figure E

Table E-5
Facilities in the Harbor CSO Basin with NPDES Permits

Facility/ Site ID	Facility Name	Facility Address	Zip	NPDES	Map ID[1]
24144	Fauntleroy Place	3908 SW Alaska Street	98116	WAR010422	H-36

1 - See Appendix E, Figure E

Table E-6
Properties in the Harbor CSO Basin with Leaking Underground Storage Tanks

Facility/ Site ID	Facility Name	Facility Address	Zip	UST Site ID	LUST Release ID	Media	Release Status	Release Status Change Date	Map ID[1]
39196282	Alaska Street Texaco	3901 SW Alaska Street	98116	101034	591535	Soil, Groundwater	Cleanup Started	5/1/1999	H-39
99437681	BP Service Station 11060	4580 Fauntleroy Way SW	98126	10140	4186	Soil, Groundwater	Cleanup Started	9/17/1998	H-31
44666249	Doyles Automotive Service Inc	4607 37th Avenue SW	98126	8188	3448	Soil	Cleanup Started	3/15/1991	H-30
51248918	Jones Building	4608 36th Avenue SW	98126	200125	2355	Soil	Reported Cleaned Up	5/22/2002	H-28
72998672	Midas Muffler & Brake Shop Seattle	4457 Fauntleroy Way SW	98126	1985	487222	Soil	Cleanup Started	11/23/1998	H-16
51413945	Rossoe Oil Bulk	4613 37th Avenue SW	98126	200799	1703	Soil	Cleanup Started	5/21/1995	H-29
35259244	Southland Corp 22561	4414 35th Avenue SW	98126	8604	490348	Soil, Groundwater	Reported Cleaned Up	4/25/2006	H-14
					4940	Soil	Reported Cleaned Up	6/1/1995	
4436544	West Seattle Golf Course 92	4470 35th Avenue SW	98126	7939	502447	Soil	Reported Cleaned Up	2/26/1999	H-25
96745657	West Seattle Recycling Inc	2964 SW Avalon Way	98126	200732	5675	Soil	Reported Cleaned Up	12/9/1995	H-5

1 - See Appendix E, Figure E

Table E-7
Properties in the Harbor CSO Basin with Underground Storage Tanks

Facility/ Site ID	Facility Name	Facility Address	Zip	UST Site ID	Operational	Removed	Closed-in-Place	Unknown	Map ID[1]
1836368	Alaska Square Associates	4200 SW Alaska Street	98116	619078		3	1		H-32
39196282	Alaska Street Texaco	3901 SW Alaska Street	98116	101034	4				H-39
99437681	BP Service Station 11060	4580 Fauntleroy Way SW	98126	10140	4				H-31
44666249	Doyles Automotive Service Inc	4607 37th Avenue SW	98126	8188			1		H-30
23587357	Hancock Fabrics	3922 SW Alaska Street	98116	102369		1			H-33
30616213	Huling Bros Buick Mazda	4545 Fauntleroy Way SW	98116	9112		4			H-21
26131615	Huling Bros Chevrolet	4755 Fauntleroy Way SW	98118	10271		1			H-40
96322842	Huling Bros Chrysler Plymouth Jeep Eagle	4550 38th Avenue SW	98116	619649		1			H-22
82729481	James B Hartog	4609 37th Avenue SW	98126	6990		2			H-26
42918918	John & Maria Campagnaro LLC	4721 38th Avenue SW	98126	612031		1			H-45
51248918	Jones Building	4608 36th Avenue SW	98126	200125			2		H-28
72998672	Midas Muffler & Brake Shop Seattle	4457 Fauntleroy Way SW	98126	1985			2		H-16
35691457	Municipality of Metro Seattle	3204 Harbor Avenue SW	98124	7235		2			H-1
57789564	Providence Mount St Vincent	4831 35th Avenue SW	98126	469097	1	1			H-47
51413945	Rossoe Oil Bulk	4613 37th Avenue SW	98126	200799		2			H-29
35315447	Seattle Fire Station 32	3715 SW Alaska Street	98126	7907		1			H-41
35259244	Southland Corp 22561	4414 35th Avenue SW	98126	8604	3	3			H-14
74519144	Unocal SS No 3774	3295 SW Avalon Way	98126	8401		3			H-10
94468422	West Fuel Site	4455 35th Avenue SW	98126	259		4			H-15
4436544	West Seattle Golf Course 92	4470 35th Avenue SW	98126	7939		2			H-25
96745657	West Seattle Recycling Inc	2964 SW Avalon Way	98126	200732				2	H-5

1 - See Appendix E, Figure E

Table E-8
Facilities in the Harbor CSO Basin that are listed on Ecology's No Further Action List

Facility/ Site ID	Facility Name	Facility Address	Zip	NFA Date	NFA Type	Map ID[1]
78535435	AA Rentals West Seattle	4722 Fauntleroy Way SW	98116	05/19/00	NFA after assessment, IRAP or VCP	H-44
7882576	Fauntleroy Plaza	4151 Fauntleroy Way SW	98126	08/20/04	NFA after assessment, IRAP or VCP	H-7
2336	GT Towing	3252 Harbor Avenue SW	98126	07/10/98	NFA after assessment, IRAP or VCP	H-3
23587357	Hancock Fabrics	3922 SW Alaska Street	98116	07/29/09	NFA after assessment, IRAP or VCP	H-33
16399	Lien Animal Clinic	3710 SW Alaska Street	98126	03/09/10	NFA after assessment, IRAP or VCP	H-38
74519144	Unocal SS No 3774	3295 SW Avalon Way	98126	05/18/05	NFA after assessment, IRAP or VCP	H-10
2062	Zandt Brass Foundry	3400 Harbor Avenue SW	98126	08/29/00	Removed from Hazardous Sites List	H-2

1 - See Appendix E, Figure E

IRAP - Independent Remedial Action Plan

NFA - No Further Action

VCP - Voluntary Cleanup Program

Table E-9
SIC and NAICS Codes for Facilities within the Harbor CSO Basin that are Listed in the Ecology Facility/Site Database

Facility/ Site ID	Facility Name	Address	Zip	SIC Code	SIC Description	NAICS Code	NAICS Description	Map ID[1]
78535435	AA Rentals West Seattle	4722 Fauntleroy Way SW	98116	NL	NA	NL	NA	H-44
66549657	Active Environmental Inc	3245 SW Avalon Way	98126	9999	Nonclassifiable Establishments	23622	Commercial & Institutional Building Construction	H-9
25939314	Alaska House	4545 42nd Avenue SW	98116	NL	NA	NL	NA	H-24
1836368	Alaska Square Associates	4200 SW Alaska Street	98116	NL	NA	447	Gasoline Stations	H-32
39196282	Alaska Street Texaco	3901 SW Alaska Street	98116	NL	NA	NL	NA	H-39
8217354	AT&T Wireless Alaska Junction	4545 Fauntleroy Way SW	98116	4812	Radiotelephone Communications	NL	NA	H-23
99437681	BP Service Station 11060	4580 Fauntleroy Way SW	98126	5541	Gasoline Service Stations	44711 44719	Gasoline Stations With Convenience Stores Other Gasoline Stations	H-31
44666249	Doyles Automotive Service Inc	4607 37th Avenue SW	98126	7538	General Automotive Repair Shops	811111	General Automotive Repair	H-30
17194226	Elliott Tire	4441 Fauntleroy Way SW	98126	9999	Nonclassifiable Establishments	44132	Tire Dealers	H-13
24144	Fauntleroy Place	3908 SW Alaska Street	98116	1794	Excavating and Foundation Work	92411	Administration of Air & Water Resource & Solid Waste Management	H-36
7882576	Fauntleroy Plaza	4151 Fauntleroy Way SW	98126	NL	NA	NL	NA	H-7
7879645	Gene Fielder Chevrolet	4734 40th Avenue SW	98116	9999	Nonclassifiable Establishments	44111	New Car Dealers	H-46
2336	GT Towing	3252 Harbor Avenue SW	98126	7549	Automotive Services, Except Repair & Carwashes	NL	NA	H-3
23587357	Hancock Fabrics	3922 SW Alaska Street	98116	NL	NA	44711 99999 45113	Gasoline Station with Convenience Store NonClassifiable Establishments Sewing, Needlework, & Piece Goods Stores	H-33
77521393	Harbor Ave SW Site	3310 Harbor Avenue SW	98126	9999	Nonclassifiable Establishments	92411	Administration of Air & Water Resource & Solid Waste Management Programs	H-4
43881387	House of Kleen Inc	4425 Fauntleroy Way SW	98126	7216	Drycleaning Plants, Except Rug Cleaning	81232	Drycleaning & Laundry Services (except coin-operated)	H-11
30616213	Huling Bros Buick Mazda	4545 Fauntleroy Way SW	98116	7539	Automotive Repair Shops, Not Elsewhere Classified	44111 8111	New Car Dealers Automotive Repair & Maintenance	H-21
26131615	Huling Bros Chevrolet	4755 Fauntleroy Way SW	98118	7539	Automotive Repair Shops, Not Elsewhere Classified	44111 8111	New Car Dealers Automotive Repair & Maintenance	H-40
96322842	Huling Bros Chrysler Plymouth Jeep Eagle	4550 38th Avenue SW	98116	7539	Automotive Repair Shops, Not Elsewhere Classified	41111 92219 8111	New Car Dealers Other Justice, Public Orders, & Safety Activities Automotive Repair & Maintenance	H-22
58619333	Huling Bros Inc Body Shop	4724 40th Avenue SW	98116	7532	Top, Body, & Upholstery Repair Shops & Paint Shops	811121	Automotive Body, Paint, & Interior Repair & Maintenance	H-43
82729481	James B Hartog	4609 37th Avenue SW	98126	NL	NA	NL	NA	H-26
42918918	John & Maria Campagnaro LLC	4721 38th Avenue SW	98126	551	New & Used Car Dealers	44112	Used Car Dealers	H-45
51248918	Jones Building	4608 36th Avenue SW	98126	NL	NA	NL	NA	H-28
45662127	Kits Camera 1029	4726 42nd Avenue SW	98116	7384 5541	Photofinishing Laboratories Gasoline Service Stations	812922 4471 81292	One-Hour Photofinishing Gasoline Stations Photofinishing	H-42
70691452	Knockout Auto Repair	3600 SW Alaska Street	98126	7532	Top, Body, & Upholstery Repair Shops & Paint Shops	811121	Automotive Body, Paint, & Interior Repair & Maintenance	H-37
16399	Lien Animal Clinic	3710 SW Alaska Street	98126	NL	NA	62231	Specialty Hospitals (except Psychiatric & Substance Abuse)	H-38
72998672	Midas Muffler & Brake Shop Seattle	4457 Fauntleroy Way SW	98126	NL	NA	NL	NA	H-16
35691457	Municipality of Metro Seattle	3204 Harbor Avenue SW	98124	1623 3399	Water, Sewer & Utility Lines Primary Metal Products, Not Elsewhere Classified	2371 332618	Utility System Construction Other Fabricated Wire Product Manufacturing	H-1
25384974	Precision Tune Alaska St	4000 SW Alaska Street	98116	7538	General Automotive Shops	811111	General Automotive Repair	H-34
57789564	Providence Mount St Vincent	4831 35th Avenue SW	98126	8052	Intermediate Care Facilities	623311	Continuing Care Retirement Communities	H-47
81635268	Quality Auto Rebuild	4623 36th Avenue SW	98126	7532	Top, Body, & Upholstery Repair Shops & Paint Shops	811121	Automotive Body, Paint, & Interior Repair & Maintenance	H-27
51413945	Rossoe Oil Bulk	4613 37th Avenue SW	98126	NL	NA	NL	NA	H-29
4008	Seattle City Light Avalon Substation	3301 SW Genessee St	98126	NL	NA	221111	Hyrdoelectric Power Generation	H-8
51763345	Seattle City Parks Lincoln Park	7501 Fauntleroy Way SW	98126	NL	NA	92119 71219	Other General Government Support Nature Parks & other Similar Institutions	H-6
45411821	Seattle City Used Oil Collect Alaska St	3908 SW Alaska Street	98116	9999	Nonclassifiable Establishments	92411	Administration of Air & Water Resource & Solid Waste Management	H-35
35315447	Seattle Fire Station 32	3715 SW Alaska Street	98126	NL	NA	NL	NA	H-41
35259244	Southland Corp 22561	4414 35th Avenue SW	98126	NL	NA	NL	NA	H-14
68656785	Thoroughbred Collision Center W Seattle	4501 38th Avenue SW	98126	NL	NA	811121	Automotive Body, Paint & Interior Repair & Maintenance	H-19

Table E-9
SIC and NAICS Codes for Facilities within the Harbor CSO Basin that are Listed in the Ecology Facility/Site Database

Facility/ Site ID	Facility Name	Address	Zip	SIC Code	SIC Description	NAICS Code	NAICS Description	Map ID[1]
6895569	Tom Smiths Automotive Inc	3616 SW Oregon Street	98126	9999	Nonclassifiable Establishments	44111	New car dealers	H-20
74519144	Unocal SS No 3774	3295 SW Avalon Way	98126	5541 7549	Gasoline Service Stations Automotive Services, Not Elsewhere Classified	44711 4471	Gasoline Stations with Convenience Stores Gasoline Stations	H-10
94468422	West Fuel Site	4455 35th Avenue SW	98126	NL	NA	NL	NA	H-15
5384468	West Seattle Assoc Inc	4217 SW Oregon Street	98116	7311	Advertising Agencies	54181	Advertising Agencies	H-17
55582696	West Seattle Cleaners	4528 Fauntleroy Way SW	98126	7216	Drycleaning Plants, Except Rug Cleaning	81232	Drycleaning & Laundry Services (except coin-operated)	H-18
4436544	West Seattle Golf Course 92	4470 35th Avenue SW	98126	NL	NA	NL	NA	H-25
51972184	West Seattle Radiator Service	4460 37th Avenue SW	98126	7539 7549 7623 7692	Automotive Repair Shops, Not Elsewhere Classified Automotive Services, Except Repair & Carwashes Refrigeration & Air-conditioning service & Repair Shops Welding Repair	811118 81111 811310	Other Automotive Mechanical and Electric Automotive Repair & Maintenance Commercial & Industrial Machinery & Equipment Repair & Maintenance (Except Automotive & Electronic)	H-12
96745657	West Seattle Recycling Inc	2964 SW Avalon Way	98126	5093 9999	Scrap & Waste Materials Nonclassifiable Establishments	42393	Recyclable Material Merchant Wholesalers	H-5
2062	Zandt Brass Foundry	3400 Harbor Avenue SW	98126	3362 3364	Brass, Bronze, Copper Base Nonferrious Die-Castings Except Aluminum	331522	Nonferrious Die-Castings Except Aluminum	H-2

1 - See Appendix E, Figure E

NAICS - North American Industry Classification System

SIC - Standard Industrial Classification

Appendix F
Environmental Investigation
Soil and Groundwater Chemical Data

Appendix F–1
Data Tables

Table F-1
Chemicals Detected in Soil Samples
Riverside Mill LLC Property

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Exceedance Factor
Olympus 1993	6/25/1993	C8-2	11.0	Diesel-range hydrocarbons	290	2,000	<1
Olympus 1993	6/25/1993	C8-1	11.0	Diesel-range hydrocarbons	48	2,000	<1
Olympus 1993	8/3/1993	C4-2	11.0	Heavy Oil-range hydrocarbons	1,700	2,000	<1
Olympus 1993	11/10/1993	4-1	12	Heavy Oil-range hydrocarbons	520	2,000	<1
Olympus 1993	8/3/1993	C4-3	11.0	Heavy Oil-range hydrocarbons	140	2,000	<1

ft bgs - Feet below ground surface
mg/kg - Milligrams per kilogram
MTCA - Model Toxics Control Act
CSL - Cleanup Screening Level from Washington Sediment Management Standards

a - The lower of MTCA Method A or B cleanup levels was selected, from CLARC database.
Table presents detected chemicals only.
Exceedance factors are the ratio of the detected concentration to the MTCA Cleanup Level.

Table F-2
Chemicals Detected in Soil Samples
Terminal 103

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
Geo Engineers 1997	11/11/1996	S-2-1	4	Arsenic	12.3	0.67	12,000	18
Geo Engineers 1997	11/11/1996	S-11-1	4	Cadmium	0.556	2	34	<1
Geo Engineers 1997	11/11/1996	S-2-1	4	Cadmium	0.331	2	34	<1
Geo Engineers 1997	11/11/1996	S-2-1	4	Chromium	17	2,000	5,400	<1
Geo Engineers 1997	11/11/1996	S-11-1	4	Chromium	16.8	2,000	5,400	<1
Geo Engineers 1997	11/11/1996	S-9-2	7	Chromium	9.14	2,000	5,400	<1
Geo Engineers 1997	11/12/1996	SS-3	3	Chromium	8.56	2,000	5,400	<1
Geo Engineers 1997	11/11/1996	S-10-2	7	Chromium	7.98	2,000	5,400	<1
Geo Engineers 1997	11/11/1996	S-4-2	7.5	Chromium	7.37	2,000	5,400	<1
Geo Engineers 1997	11/11/1996	S-11-2	7	Chromium	7	2,000	5,400	<1
Geo Engineers 1997	11/11/1996	S-5-2	7	Chromium	6.91	2,000	5,400	<1
Geo Engineers 1997	11/11/1996	S-6-2	8	Chromium	6.84	2,000	5,400	<1
Geo Engineers 1997	11/11/1996	S-4-1	4	Chromium	6.79	2,000	5,400	<1
Geo Engineers 1997	11/11/1996	S-9-1	4	Chromium	6.59	2,000	5,400	<1
Geo Engineers 1997	11/11/1996	S-12-2	7.5	Chromium	6.52	2,000	5,400	<1
Geo Engineers 1997	11/11/1996	S-8-1	4	Chromium	6.52	2,000	5,400	<1
Geo Engineers 1997	11/11/1996	S-3-2	7	Chromium	6.28	2,000	5,400	<1
Geo Engineers 1997	11/11/1996	S-1-2	8	Chromium	6.1	2,000	5,400	<1
Geo Engineers 1997	11/11/1996	S-1-1	4	Chromium	5.96	2,000	5,400	<1
Geo Engineers 1997	11/11/1996	S-7-1	4	Chromium	5.95	2,000	5,400	<1
Geo Engineers 1997	11/11/1996	S-7-2	7.5	Chromium	5.89	2,000	5,400	<1
Geo Engineers 1997	11/11/1996	S-2-2	7	Chromium	5.73	2,000	5,400	<1
Geo Engineers 1997	11/11/1996	S-8-2	8.5	Chromium	5.71	2,000	5,400	<1
Geo Engineers 1997	11/11/1996	S-5-1	4	Chromium	5.52	2,000	5,400	<1
Geo Engineers 1997	11/11/1996	S-12-1	4	Chromium	5.32	2,000	5,400	<1
Geo Engineers 1997	11/11/1996	S-3-1	3	Chromium	5.16	2,000	5,400	<1
Geo Engineers 1997	11/11/1996	S-6-1	4	Chromium	5.13	2,000	5,400	<1
Geo Engineers 1997	11/12/1996	SS-2	2.5	Chromium	4.97	2,000	5,400	<1
Geo Engineers 1997	11/11/1996	S-10-1	4	Chromium	4.89	2,000	5,400	<1
Coastal Tank Cleaning 1994	2/24/1994	3		Diesel-range hydrocarbons	770	2,000		<1
Geo Engineers 1997	11/11/1996	S-11-1	4	Diesel-range hydrocarbons	167	2,000		<1
Coastal Tank Cleaning 1994	5/12/1994	8677-6	12	Diesel-range hydrocarbons	58	2,000		<1
Coastal Tank Cleaning 1994	5/12/1994	8677-7	12	Diesel-range hydrocarbons	58	2,000		<1
Coastal Tank Cleaning 1994	5/12/1994	8677-8	12	Diesel-range hydrocarbons	48	2,000		<1
Geo Engineers 1997	11/11/1996	S-2-1	4	Diesel-range hydrocarbons	38.1	2,000		<1

Table F-2
Chemicals Detected in Soil Samples
Terminal 103

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
Coastal Tank Cleaning 1994	6/10/1994	13 West		Diesel-range hydrocarbons	29	2,000		<1
Coastal Tank Cleaning 1994	2/24/1994	5		Diesel-range hydrocarbons	20 Id	2,000		<1
Coastal Tank Cleaning 1994	6/10/1994	12 East		Diesel-range hydrocarbons	15	2,000		<1
Coastal Tank Cleaning 1994	2/24/1994	4		Diesel-range hydrocarbons	10 Co	2,000		<1
Coastal Tank Cleaning 1994	2/24/1994	6		Diesel-range hydrocarbons	10 Id	2,000		<1
Coastal Tank Cleaning 1994	2/24/1994	7		Diesel-range hydrocarbons	5 Id	2,000		<1
Coastal Tank Cleaning 1994	5/12/1994	8677-4	8	Ethylbenzene	0.12	6		<1
Coastal Tank Cleaning 1994	5/12/1994	8677-4	8	Gasoline-range hydrocarbons	14	30		<1
Geo Engineers 1997	11/11/1996	S-11-1	4	Heavy oil-range hydrocarbons	605	2,000		<1
Geo Engineers 1997	11/11/1996	S-2-1	4	Heavy oil-range hydrocarbons	186	2,000		<1
Geo Engineers 1997	11/11/1996	S-11-1	4	Lead	105	250	1,300	<1
Geo Engineers 1997	11/11/1996	S-2-1	4	Lead	81.5	250	1,300	<1
Coastal Tank Cleaning 1994	5/12/1994	8677-4	8	Lead	41.3	250	1,300	<1
Coastal Tank Cleaning 1994	5/12/1994	8677-5	8	Lead	34.1	250	1,300	<1
Geo Engineers 1997	11/11/1996	S-11-1	4	Mercury	0.131	2	0.59	<1
Coastal Tank Cleaning 1994	5/12/1994	8677-4	8	Toluene	0.085	7		<1
Coastal Tank Cleaning 1994	5/12/1994	8677-4	8	Xylenes, m- & p-	0.58	9		<1
Coastal Tank Cleaning 1994	5/12/1994	8677-5	8	Xylenes, m- & p-	0.064	9		<1
Coastal Tank Cleaning 1994	5/12/1994	8677-4	8	Xylenes, o-	0.25	9		<1

ft bgs - Feet below ground surface
mg/kg - Milligrams per kilogram
MTCA - Model Toxics Control Act
CSL - Cleanup Screening Level from Washington Sediment Management Standards
Co - This value is most likely due to carryover from the previous sample during analysis
Id - The material present appears to be indicative of a higher boiling product, the fromt end of which is eluting in the diesel range.

a - The lower of MTCA Method A or B cleanup levels was selected, from CLARC database.
b - Based on CSL. Where two screening levels are listed for a single chemical, the higher screening levels are for soil samples collected from the vadose zone and the lower screening levels are for soil samples collected from the saturated zone (SAIC 2006).
Depth to groundwater is tidally influenced at this property, and was observed between 10 and 12 ft bgs.
Table presents detected chemicals only.
Exceedance factors are the ratio of the detected concentration to the MTCA Cleanup Level or Soil-to-Sediment Screening Level, whichever is lower.
Chemicals and samples with exceedance factors greater than 1 are shaded light yellow.

Table F-3
Chemicals Detected in Groundwater Samples
Terminal 103

Source	Sample Date	Sample Location	Chemical	GW Conc'n (ug/L)	MTCA Cleanup Level[a] (ug/L)	GW-to-Sediment Screening Level[b] (ug/L)	Exceedance Factor
Geo Engineers 1997	11/11/1996	S-1	Arsenic	10.6	0.06	370	180
Geo Engineers 1997	11/11/1996	S-6	Arsenic	8.8	0.06	370	150
Geo Engineers 1997	11/11/1996	S-9	Arsenic	7.4	0.06	370	130
Geo Engineers 1997	11/11/1996	S-6	Chromium	12.5	50	320	<1
Geo Engineers 1997	11/11/1996	S-9	Chromium	11.8	50	320	<1
Coastal Tank Cleaning 1994	5/13/1994	8677-16	Diesel-range hydrocarbons	19,000			
Coastal Tank Cleaning 1994	5/24/1994	#2	Diesel-range hydrocarbons	2,200			
Coastal Tank Cleaning 1994	6/9/2010	4-UST	Diesel-range hydrocarbons	1,100			
Coastal Tank Cleaning 1994	6/24/1994	#5-UST-2	Diesel-range hydrocarbons	1,000			
Coastal Tank Cleaning 1994	5/13/1994	8677-15	Lead	724	15	13	56
Coastal Tank Cleaning 1994	6/10/1994	2-L	Lead	50	15	13	3.8
Geo Engineers 1997	11/11/1996	S-9	Lead	9.91	15	13	<1
Geo Engineers 1997	11/11/1996	S-2	Lead	8.96	15	13	<1
Geo Engineers 1997	11/11/1996	S-6	Lead	7.1	15	13	<1
Geo Engineers 1997	11/11/1996	S-1	Lead	4.09	15	13	<1
Geo Engineers 1997	11/11/1996	S-10	Lead	3.63	15	13	<1
Geo Engineers 1997	11/11/1996	S-7	Lead	2.68	15	13	<1
Geo Engineers 1997	11/11/1996	S-5	Lead	2.58	15	13	<1
Geo Engineers 1997	11/11/1996	S-11	Lead	2.39	15	13	<1
Geo Engineers 1997	11/11/1996	S-4	Lead	2.24	15	13	<1
Coastal Tank Cleaning 1994	5/13/1994	8677-15	Toluene	2			
Coastal Tank Cleaning 1994	5/13/1994	8677-15	Xylenes, m- & p-	2			
Coastal Tank Cleaning 1994	5/13/1994	8677-15	Xylenes, o-	1			

GW - Groundwater
ug/L - Micrograms per liter
MTCA - Model Toxics Control Act
CSL - Cleanup Screening Level from Washington Sediment Management Standards

a - The lower of MTCA Method A or B cleanup levels was selected, from CLARC database
b - Based on CSL (SAIC 2006).
Table presents detected chemicals only.
Exceedance factors are the ratio of the detected concentration to the MTCA Cleanup Level or Groundwater-to-Sediment Screening Value, whichever is lower.
Chemicals and samples with exceedance factors greater than 1 are shaded light yellow.

Table F-4
Chemicals Detected in Storm Drain Solids Samples
Terminal 103

Source	Sample Date	Sample Location	Chemical	Storm Drain Solids Conc'n (mg/kg DW)	SQS/LAET (mg/kg DW)	CSL/2LAET (mg/kg DW)	Exceedane Factor
Geo Engineers 1997	11/12/1996	CB-1	Arsenic	17.3	57	93	<1
Geo Engineers 1997	11/12/1996	CB-2	Arsenic	30.3	57	93	<1
Geo Engineers 1997	11/12/1996	CB-3	Arsenic	29.1	57	93	<1
Geo Engineers 1997	11/12/1996	CB-1	Cadmium	1.16	5.1	6.7	<1
Geo Engineers 1997	11/12/1996	CB-2	Cadmium	1.39	5.1	6.7	<1
Geo Engineers 1997	11/12/1996	CB-3	Cadmium	0.37	5.1	6.7	<1
Geo Engineers 1997	11/12/1996	CB-1	Chromium	58.1	260	270	<1
Geo Engineers 1997	11/12/1996	CB-2	Chromium	28.7	260	270	<1
Geo Engineers 1997	11/12/1996	CB-3	Chromium	32	260	270	<1
Geo Engineers 1997	11/12/1996	CB-1	Diesel-range hydrocarbons	4,680			
Geo Engineers 1997	11/12/1996	CB-2	Diesel-range hydrocarbons	3,300			
Geo Engineers 1997	11/12/1996	CB-3	Diesel-range hydrocarbons	2,620			
Geo Engineers 1997	11/12/1996	CB-1	Gasoline-range hydrocarbons	252			
Geo Engineers 1997	11/12/1996	CB-1	Heavy oil-range hydrocarbons	14,800			
Geo Engineers 1997	11/12/1996	CB-2	Heavy oil-range hydrocarbons	14,200			
Geo Engineers 1997	11/12/1996	CB-3	Heavy oil-range hydrocarbons	5,850			
Geo Engineers 1997	11/12/1996	CB-1	Lead	127	450	530	<1
Geo Engineers 1997	11/12/1996	CB-2	Lead	120	450	530	<1
Geo Engineers 1997	11/12/1996	CB-3	Lead	103	450	530	<1
Geo Engineers 1997	11/12/1996	CB-1	Mercury	0.064	0.41	0.59	<1
Geo Engineers 1997	11/12/1996	CB-2	Mercury	0.058	0.41	0.59	<1
Geo Engineers 1997	11/12/1996	CB-3	Mercury	0.085	0.41	0.59	<1

mg/kg - Milligrams per kilogram
DW - Dry weight
SQS - SMS Sediment Quality Standard
CSL - SMS Cleanup Screening Level
LAET - Lowest Apparent Effects Threshold
2LAET - Second LAET

Table presents detected chemicals only.
Organic chemicals were not normalized for organic carbon content during testing and these chemicals were compared with the LAET and 2LAET instead of the SQS and CSL.
Exceedance factors are the ratio of the detected concentrations to the SQS or CSL, exceedance factors are shown only if they are greater than 1.

Table F-5
Chemicals Detected in Soil Samples
Terminal 105

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
Olympus 1994	11/11/1993	B2-13.5	13.5	1,1,1-Trichloroethane	0.0016 J	2		<1
Olympus 1994	11/11/1993	B2-13.5	13.5	1,1-Dichloroethane	0.0069	16,000		<1
Olympus 1994	11/24/1993	TP-9		1,1-Dichloroethane	0.0011	16,000		<1
Olympus 1994	11/24/1993	TP-5		1,1-Dichloroethene	0.0011 J	4,000		<1
EcoChem 1997	1/7/1997	SS-7 Dup	Surface	1,2,4-Trimethylbenzene	0.013 JD			
EcoChem 1997	1/7/1997	SS-21	Surface	1,2,4-Trimethylbenzene	0.01 J			
EcoChem 1997	1/7/1997	SS-22	Surface	1,2,4-Trimethylbenzene	0.006			
EcoChem 1997	1/7/1997	SS-4	Surface	1,2,4-Trimethylbenzene	0.005			
EcoChem 1997	1/7/1997	SS-7 Dup	Surface	1,3,5-Trimethylbenzene	0.004 JD	800		<1
EcoChem 1997	1/7/1997	SS-21	Surface	1,3,5-Trimethylbenzene	0.003 J	800		<1
EcoChem 1997	1/7/1997	SS-22	Surface	1,3,5-Trimethylbenzene	0.002	800		<1
Olympus 1994	11/24/1993	TP-5		2-Butanone	0.0042 J	48,000		<1
Olympus 1994	11/24/1993	TP-9		2-Butanone	0.0042	48,000		<1
EcoChem 1997	1/8/1997	SS-20	Surface	2-Methylnaphthalene	0.28 J	320	1.4	<1
EcoChem 1997	1/7/1997	SS-14	Surface	2-Methylnaphthalene	0.21 J	320	1.4	<1
EcoChem 1997	1/7/1997	SS-12	Surface	2-Methylnaphthalene	0.029 J	320	1.4	<1
EcoChem 1997	1/7/1997	SS-15	Surface	2-Methylnaphthalene	0.023 J	320	1.4	<1
EcoChem 1997	1/7/1997	SS-10	Surface	2-Methylnaphthalene	0.022 J	320	1.4	<1
EcoChem 1997	1/8/1997	SS-18	Surface	Acenaphthene	23 J	4,800	1.2	19
Erda Environmental 1996	12/1/1994	T #6B D		Acenaphthene	4.6	4,800	0.06	77
EcoChem 1997	1/8/1997	SS-20	Surface	Acenaphthene	3.6 J	4,800	1.2	3.0
EcoChem 1997	1/7/1997	SS-14	Surface	Acenaphthene	2.4	4,800	1.2	2.0
Port of Seattle 1993a	12/7/1992	SS3	0 - 4	Acenaphthene	0.65	4,800	1.2	<1
Erda Environmental 1996	12/1/1994	T #3 C	C	Acenaphthene	0.53	4,800	0.06	8.8
Olympus 1994	11/24/1993	TP-6		Acenaphthene	0.3 J	4,800	0.06	5.0
EcoChem 1997	1/7/1997	SS-10	Surface	Acenaphthene	0.26 J	4,800	1.2	<1
EcoChem 1997	1/8/1997	SS-17	Surface	Acenaphthene	0.2 J	4,800	1.2	<1
Erda Environmental 1996	12/1/1994	T #2 C	C	Acenaphthene	0.1	4,800	0.06	1.7
Erda Environmental 1996	12/1/1994	T #3S D		Acenaphthene	0.1	4,800	0.06	1.7
EcoChem 1997	1/7/1997	SS-14	Surface	Acenaphthylene	0.41 J		1.4	<1
EcoChem 1997	1/8/1997	SS-1	Surface	Acenaphthylene	0.14 J		1.4	<1
EcoChem 1997	1/7/1997	SS-7	Surface	Acenaphthylene	0.045 J		1.4	<1
EcoChem 1997	1/7/1997	SS-7 Dup	Surface	Acenaphthylene	0.025 JD		1.4	<1
EcoChem 1997	1/7/1997	SS-4	Surface	Acenaphthylene	0.022 J		1.4	<1

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Chemicals Detected in Soil Samples
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Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
EcoChem 1997	1/7/1997	SS-15	Surface	Acenaphthylene	0.016 J		1.4	<1
EcoChem 1997	1/8/1997	SS-5 Dup	Surface	Acenaphthylene	0.012 JD		1.4	<1
EcoChem 1997	1/7/1997	SS-9	Surface	Acenaphthylene	0.012 J		1.4	<1
Port of Seattle 1993a	12/7/1992	SS1	0 - 6	Acetone	0.093	72,000		<1
Olympus 1994	11/24/1993	TP-5		Acetone	0.034	72,000		<1
Olympus 1994	11/24/1993	TP-9		Acetone	0.034	72,000		<1
Olympus 1994	11/11/1993	B2-13.5	13.5	Acetone	0.0075 J	72,000		<1
Olympus 1994	11/24/1993	TP-4		Acetone	0.0073 J	72,000		<1
Olympus 1994	11/24/1993	TP-6		Acetone	0.0073 J	72,000		<1
Olympus 1994	11/24/1993	TP-7		Acetone	0.0073 J	72,000		<1
Olympus 1994	11/24/1993	TP-8		Acetone	0.0073 J	72,000		<1
Olympus 1994	11/11/1993	B3-7.5	7.5	Acetone	0.0028 J	72,000		<1
Olympus 1994	11/12/1993	TP-1		Acetone	0.0017 J	72,000		<1
EcoChem 1997	1/7/1997	SS-21	Surface	Aldrin	0.003 J	2.4		<1
Erda Environmental 1996	12/1/1994	T #6B D		Anthracene	17	24,000	1.2	14
EcoChem 1997	1/8/1997	SS-20	Surface	Anthracene	6.7	24,000	24	<1
EcoChem 1997	1/7/1997	SS-14	Surface	Anthracene	2.7	24,000	24	<1
Erda Environmental 1996	12/1/1994	T #3 C	C	Anthracene	1.7	24,000	1.2	1.4
Port of Seattle 1993a	12/7/1992	SS3	0 - 4	Anthracene	1.2	24,000	24	<1
EcoChem 1997	1/7/1997	SS-10	Surface	Anthracene	0.94	24,000	24	<1
EcoChem 1997	1/8/1997	SS-17	Surface	Anthracene	0.93 J	24,000	24	<1
EcoChem 1997	1/8/1997	SS-18	Surface	Anthracene	0.65 J	24,000	24	<1
EcoChem 1997	1/8/1997	SS-19	Surface	Anthracene	0.49	24,000	24	<1
Olympus 1994	11/24/1993	TP-6		Anthracene	0.28 J	24,000	1.2	<1
EcoChem 1997	1/8/1997	SS-1	Surface	Anthracene	0.23 J	24,000	24	<1
Erda Environmental 1996	12/1/1994	T #6 C	C	Anthracene	0.22	24,000	1.2	<1
Erda Environmental 1996	12/1/1994	T #2 C	C	Anthracene	0.2	24,000	1.2	<1
Erda Environmental 1996	12/1/1994	T #3N D		Anthracene	0.18	24,000	1.2	<1
EcoChem 1997	1/7/1997	SS-11	Surface	Anthracene	0.17 J	24,000	24	<1
Erda Environmental 1996	12/1/1994	T #3S D		Anthracene	0.15	24,000	1.2	<1
EcoChem 1997	1/7/1997	SS-15	Surface	Anthracene	0.13 J	24,000	24	<1
Erda Environmental 1996	12/1/1994	T #4 C	C	Anthracene	0.13	24,000	1.2	<1
Erda Environmental 1996	12/1/1994	T #1 C	C	Anthracene	0.12	24,000	1.2	<1
EcoChem 1997	1/7/1997	SS-7	Surface	Anthracene	0.076 J	24,000	24	<1

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Chemicals Detected in Soil Samples
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Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
EcoChem 1997	1/7/1997	SS-16	Surface	Anthracene	0.046 J	24,000	24	<1
EcoChem 1997	1/7/1997	SS-21	Surface	Anthracene	0.046 J	24,000	24	<1
EcoChem 1997	1/7/1997	SS-12	Surface	Anthracene	0.023 J	24,000	24	<1
EcoChem 1997	1/7/1997	SS-7 Dup	Surface	Anthracene	0.02 JD	24,000	24	<1
EcoChem 1997	1/8/1997	SS-5 Dup	Surface	Anthracene	0.019 JD	24,000	24	<1
EcoChem 1997	1/7/1997	SS-9	Surface	Anthracene	0.018 J	24,000	24	<1
EcoChem 1997	1/8/1997	SS-5	Surface	Anthracene	0.011 J	24,000	24	<1
Olympus 1994	11/24/1993	TP-9		Antimony	380	32		12
EcoChem 1997	1/8/1997	SS-17	Surface	Antimony	99.6 J	32		3.1
EcoChem 1997	1/8/1997	SS-18	Surface	Antimony	48.9 J	32		1.5
Olympus 1994	11/24/1993	TP-5		Antimony	43	32		1.3
Olympus 1994	11/12/1993	TP-3		Antimony	38 J	32		1.2
EcoChem 1997	1/8/1997	SS-20	Surface	Antimony	28.2 J	32		<1
EcoChem 1997	1/7/1997	SS-15	Surface	Antimony	22.8 J	32		<1
EcoChem 1997	1/7/1997	SS-16	Surface	Antimony	17.1 J	32		<1
Olympus 1994	11/24/1993	TP-6		Antimony	15	32		<1
EcoChem 1997	1/7/1997	SS-14	Surface	Antimony	13.5 J	32		<1
EcoChem 1997	1/7/1997	SS-12	Surface	Antimony	12 J	32		<1
Olympus 1994	11/24/1993	TP-8		Antimony	9.7	32		<1
EcoChem 1997	1/7/1997	SS-7 Dup	Surface	Antimony	9.3 JD	32		<1
EcoChem 1997	1/7/1997	SS-10	Surface	Antimony	8.7 J	32		<1
EcoChem 1997	1/7/1997	SS-7	Surface	Antimony	5.9 J	32		<1
EcoChem 1997	1/7/1997	SS-11	Surface	Antimony	5.9 J	32		<1
EcoChem 1997	1/7/1997	SS-9	Surface	Antimony	4.7 J	32		<1
EcoChem 1997	1/7/1997	SS-21	Surface	Antimony	3.8 J	32		<1
Olympus 1994	11/24/1993	TP-7		Antimony	3.8	32		<1
Olympus 1994	11/24/1993	TP-4		Antimony	3.6	32		<1
EcoChem 1997	1/7/1997	SS-13	Surface	Antimony	2 J	32		<1
EcoChem 1997	1/8/1997	SS-5 Dup	Surface	Antimony	1.8 JD	32		<1
EcoChem 1997	1/8/1997	SS-5	Surface	Antimony	1.7 J	32		<1
EcoChem 1997	1/8/1997	SS-1	Surface	Antimony	1.1 J	32		<1
EcoChem 1997	1/7/1997	SS-22	Surface	Antimony	0.97 J	32		<1
EcoChem 1997	1/7/1997	SS-6	Surface	Antimony	0.91 J	32		<1
EcoChem 1997	1/7/1997	SS-8	Surface	Antimony	0.49 J	32		<1

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Chemicals Detected in Soil Samples
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Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
EcoChem 1997	1/7/1997	SS-4	Surface	Antimony	0.45 J	32		<1
EcoChem 1997	1/8/1997	SS-3	Surface	Antimony	0.37 J	32		<1
Erda Environmental 1996	12/1/1994	T #3N D		Arsenic	530	0.67	590	791
Olympus 1994	11/24/1993	TP-9		Arsenic	390	0.67	590	582
Erda Environmental 1996	12/1/1994	T #3S D		Arsenic	380	0.67	590	567
Erda Environmental 1996	12/1/1994	T #2 C	C	Arsenic	280	0.67	590	418
EcoChem 1997	1/8/1997	SS-17	Surface	Arsenic	250 J	0.67	12,000	373
Erda Environmental 1996	12/1/1994	T #3B D		Arsenic	190	0.67	590	284
Erda Environmental 1996	12/1/1994	T #3 C	C	Arsenic	120	0.67	590	179
EcoChem 1997	1/8/1997	SS-18	Surface	Arsenic	97.2 J	0.67	12,000	145
Olympus 1994	11/12/1993			Arsenic	68	0.67	590	101
Olympus 1994	11/24/1993	TP-5		Arsenic	68	0.67	590	101
EcoChem 1997	1/8/1997	SS-20	Surface	Arsenic	62.6 J	0.67	12,000	93
Erda Environmental 1996	12/1/1994	T #6 C	C	Arsenic	57	0.67	590	85
EcoChem 1997	1/7/1997	SS-12	Surface	Arsenic	56.2 J	0.67	12,000	84
EcoChem 1997	1/7/1997	SS-15	Surface	Arsenic	31.1 J	0.67	12,000	46
EcoChem 1997	1/7/1997	SS-10	Surface	Arsenic	28 J	0.67	12,000	42
EcoChem 1997	1/7/1997	SS-14	Surface	Arsenic	26.7 J	0.67	12,000	40
EcoChem 1997	1/7/1997	SS-16	Surface	Arsenic	25.8 J	0.67	12,000	39
EcoChem 1997	1/7/1997	SS-21	Surface	Arsenic	21.8 J	0.67	12,000	33
EcoChem 1997	1/7/1997	SS-11	Surface	Arsenic	20.9 J	0.67	12,000	31
Olympus 1994	11/24/1993	TP-6		Arsenic	20	0.67	590	30
EcoChem 1997	1/7/1997	SS-9	Surface	Arsenic	16.7 J	0.67	12,000	25
Olympus 1994	11/24/1993	TP-8		Arsenic	14	0.67	590	21
Erda Environmental 1996	12/1/1994	T #1 C	C	Arsenic	14	0.67	590	21
EcoChem 1997	1/7/1997	SS-13	Surface	Arsenic	11.7 J	0.67	12,000	17
EcoChem 1997	1/7/1997	SS-7	Surface	Arsenic	11.3 J	0.67	12,000	17
Olympus 1994	11/24/1993	TP-7		Arsenic	11	0.67	590	16
EcoChem 1997	1/7/1997	SS-7 Dup	Surface	Arsenic	10.5 JD	0.67	12,000	16
Geo Engineers 1985	6/4/1985	2 (U-3, U-4)	C	Arsenic	8.9	0.67	12,000	13
Geo Engineers 1985	6/4/1985	1 (U-1, U-2)	C	Arsenic	7.8	0.67	12,000	12
Geo Engineers 1985	6/4/1985	4 (U-7, U-8, U-9)	C	Arsenic	7.8	0.67	12,000	12
EcoChem 1997	1/7/1997	SS-22	Surface	Arsenic	7.3 J	0.67	12,000	11
Olympus 1994	11/24/1993	TP-4		Arsenic	6.9	0.67	590	10

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Chemicals Detected in Soil Samples
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Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
EcoChem 1997	1/8/1997	SS-1	Surface	Arsenic	6.2 J	0.67	12,000	9.3
EcoChem 1997	1/8/1997	SS-5	Surface	Arsenic	6.2 J	0.67	12,000	9.3
Geo Engineers 1985	6/4/1985	3 (U-5, U-6)	C	Arsenic	6	0.67	12,000	9.0
EcoChem 1997	1/8/1997	SS-5 Dup	Surface	Arsenic	5.7 JD	0.67	12,000	8.5
EcoChem 1997	1/7/1997	SS-6	Surface	Arsenic	4.3 J	0.67	12,000	6.4
EcoChem 1997	1/7/1997	SS-4	Surface	Arsenic	3.8 J	0.67	12,000	5.7
EcoChem 1997	1/7/1997	SS-8	Surface	Arsenic	3 J	0.67	12,000	4.5
EcoChem 1997	1/8/1997	SS-3	Surface	Arsenic	1.9 J	0.67	12,000	2.8
EcoChem 1997	1/8/1997	SS-2	Surface	Arsenic	1.8 J	0.67	12,000	2.7
Port of Seattle 1995	10/11/1994	Area K Confirmation-13		Barium	1100	16,000		<1
Port of Seattle 1995	10/11/1994	Area K Confirmation-8		Barium	400	16,000		<1
Port of Seattle 1995	10/11/1994	Area K Confirmation-9		Barium	240	16,000		<1
Port of Seattle 1995	10/10/1994	Area K Confirmation-6		Barium	93	16,000		<1
Port of Seattle 1995	10/11/1994	Area K Confirmation-11		Barium	44	16,000		<1
Port of Seattle 1995	10/10/1994	Area K Confirmation-5		Barium	43	16,000		<1
Port of Seattle 1995	10/11/1994	Area K Confirmation-12		Barium	28	16,000		<1
Port of Seattle 1995	10/10/1994	Area K Confirmation-3		Barium	23	16,000		<1
Port of Seattle 1995	10/11/1994	Area K Confirmation-7		Barium	22	16,000		<1
Port of Seattle 1995	10/10/1994	Area K Confirmation-1		Barium	17	16,000		<1
Port of Seattle 1995	10/10/1994	Area K Confirmation-2		Barium	16	16,000		<1
Port of Seattle 1995	10/11/1994	Area K Confirmation-10		Barium	16	16,000		<1
Port of Seattle 1995	10/10/1994	Area K Confirmation-4		Barium	13	16,000		<1
Geo Engineers 1990	2/7/1990	3	5	Benzene	0.04	0.03		1.3
Erda Environmental 1996	12/1/1994	T #6B D		Benzo(a)anthracene	37	1.37	0.27	137
EcoChem 1997	1/8/1997	SS-20	Surface	Benzo(a)anthracene	12	1.37	5.4	8.8
Erda Environmental 1996	12/1/1994	T #3 C	C	Benzo(a)anthracene	6	1.37	0.27	22
EcoChem 1997	1/8/1997	SS-17	Surface	Benzo(a)anthracene	5.5 J	1.37	5.4	4.0
EcoChem 1997	1/7/1997	SS-14	Surface	Benzo(a)anthracene	4	1.37	5.4	2.9
Port of Seattle 1993a	12/7/1992	SS3	0 - 4	Benzo(a)anthracene	3.7	1.37	5.4	2.7
EcoChem 1997	1/8/1997	SS-18	Surface	Benzo(a)anthracene	2.8	1.37	5.4	2.0
EcoChem 1997	1/7/1997	SS-10	Surface	Benzo(a)anthracene	2	1.37	5.4	1.5
EcoChem 1997	1/8/1997	SS-19	Surface	Benzo(a)anthracene	1.7	1.37	5.4	1.2
Olympus 1994	11/24/1993	TP-6		Benzo(a)anthracene	0.81	1.37	0.27	3.0
Erda Environmental 1996	12/1/1994	T #3N D		Benzo(a)anthracene	0.69	1.37	0.27	2.6

Table F-5
Chemicals Detected in Soil Samples
Terminal 105

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
Erda Environmental 1996	12/1/1994	T #2 C	C	Benzo(a)anthracene	0.64	1.37	0.27	2.4
Erda Environmental 1996	12/1/1994	T #4 C	C	Benzo(a)anthracene	0.54	1.37	0.27	2.0
EcoChem 1997	1/7/1997	SS-15	Surface	Benzo(a)anthracene	0.51	1.37	5.4	<1
EcoChem 1997	1/8/1997	SS-1	Surface	Benzo(a)anthracene	0.46	1.37	5.4	<1
EcoChem 1997	1/7/1997	SS-11	Surface	Benzo(a)anthracene	0.45 J	1.37	5.4	<1
Erda Environmental 1996	12/1/1994	T #3S D		Benzo(a)anthracene	0.4	1.37	0.27	1.5
Erda Environmental 1996	12/1/1994	T #1 C	C	Benzo(a)anthracene	0.34	1.37	0.27	1.3
EcoChem 1997	1/7/1997	SS-16	Surface	Benzo(a)anthracene	0.33 J	1.37	5.4	<1
EcoChem 1997	1/7/1997	SS-7	Surface	Benzo(a)anthracene	0.25 J	1.37	5.4	<1
EcoChem 1997	1/7/1997	SS-21	Surface	Benzo(a)anthracene	0.23 J	1.37	5.4	<1
Erda Environmental 1996	12/1/1994	T #3B D		Benzo(a)anthracene	0.2	1.37	0.27	<1
Erda Environmental 1996	12/1/1994	T #6 Sides C	C	Benzo(a)anthracene	0.16	1.37	0.27	<1
EcoChem 1997	1/7/1997	SS-9	Surface	Benzo(a)anthracene	0.12 J	1.37	5.4	<1
EcoChem 1997	1/7/1997	SS-12	Surface	Benzo(a)anthracene	0.11 J	1.37	5.4	<1
EcoChem 1997	1/7/1997	SS-7 Dup	Surface	Benzo(a)anthracene	0.096 JD	1.37	5.4	<1
Erda Environmental 1996	12/1/1994	T #1B D		Benzo(a)anthracene	0.095	1.37	0.27	<1
Port of Seattle 1995	8/24/1994	Area D Sidewall Sand		Benzo(a)anthracene	0.078	1.37	0.27	<1
EcoChem 1997	1/8/1997	SS-5 Dup	Surface	Benzo(a)anthracene	0.061 JD	1.37	5.4	<1
EcoChem 1997	1/7/1997	SS-4	Surface	Benzo(a)anthracene	0.05 J	1.37	5.4	<1
EcoChem 1997	1/7/1997	SS-13	Surface	Benzo(a)anthracene	0.044 J	1.37	5.4	<1
EcoChem 1997	1/7/1997	SS-6	Surface	Benzo(a)anthracene	0.02 J	1.37	5.4	<1
EcoChem 1997	1/8/1997	SS-3	Surface	Benzo(a)anthracene	0.019 J	1.37	5.4	<1
EcoChem 1997	1/7/1997	SS-22	Surface	Benzo(a)anthracene	0.018 J	1.37	5.4	<1
EcoChem 1997	1/7/1997	SS-8	Surface	Benzo(a)anthracene	0.014 J	1.37	5.4	<1
Erda Environmental 1996	12/1/1994	T #6B D		Benzo(a)pyrene	19	0.137	0.21	139
EcoChem 1997	1/8/1997	SS-20	Surface	Benzo(a)pyrene	9.6 J	0.137	4.2	70
EcoChem 1997	1/8/1997	SS-17	Surface	Benzo(a)pyrene	6.0 J	0.137	4.2	44
Erda Environmental 1996	12/1/1994	T #3 C	C	Benzo(a)pyrene	4.7	0.137	0.21	34
EcoChem 1997	1/7/1997	SS-14	Surface	Benzo(a)pyrene	3.7 J	0.137	4.2	27
EcoChem 1997	1/8/1997	SS-18	Surface	Benzo(a)pyrene	2.7	0.137	4.2	20
Port of Seattle 1993a	12/7/1992	SS3	0 - 4	Benzo(a)pyrene	2.7	0.137	4.2	20
EcoChem 1997	1/7/1997	SS-10	Surface	Benzo(a)pyrene	1.5 J	0.137	4.2	11
EcoChem 1997	1/8/1997	SS-19	Surface	Benzo(a)pyrene	1.5	0.137	4.2	11
Erda Environmental 1996	12/1/1994	T #3N D		Benzo(a)pyrene	0.65	0.137	0.21	4.7

Table F-5
Chemicals Detected in Soil Samples
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Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
Erda Environmental 1996	12/1/1994	T #2 C	C	Benzo(a)pyrene	0.59	0.137	0.21	4.3
EcoChem 1997	1/7/1997	SS-15	Surface	Benzo(a)pyrene	0.51 J	0.137	4.2	3.7
EcoChem 1997	1/8/1997	SS-1	Surface	Benzo(a)pyrene	0.46	0.137	4.2	3.4
Olympus 1994	11/24/1993	TP-6		Benzo(a)pyrene	0.45 J	0.137	0.21	3.3
Erda Environmental 1996	12/1/1994	T #4 C	C	Benzo(a)pyrene	0.45	0.137	0.21	3.3
EcoChem 1997	1/7/1997	SS-11	Surface	Benzo(a)pyrene	0.41 J	0.137	4.2	3.0
EcoChem 1997	1/7/1997	SS-16	Surface	Benzo(a)pyrene	0.31 J	0.137	4.2	2.3
Erda Environmental 1996	12/1/1994	T #3S D		Benzo(a)pyrene	0.31	0.137	0.21	2.3
EcoChem 1997	1/7/1997	SS-7	Surface	Benzo(a)pyrene	0.3 J	0.137	4.2	2.2
Erda Environmental 1996	12/1/1994	T #1 C	C	Benzo(a)pyrene	0.28	0.137	0.21	2.0
Erda Environmental 1996	12/1/1994	T #3B D		Benzo(a)pyrene	0.23	0.137	0.21	1.7
Erda Environmental 1996	12/1/1994	T #6 Sides C	C	Benzo(a)pyrene	0.18	0.137	0.21	1.3
EcoChem 1997	1/7/1997	SS-12	Surface	Benzo(a)pyrene	0.17 J	0.137	4.2	1.2
EcoChem 1997	1/7/1997	SS-9	Surface	Benzo(a)pyrene	0.14 J	0.137	4.2	1.0
EcoChem 1997	1/7/1997	SS-7 Dup	Surface	Benzo(a)pyrene	0.13 JD	0.137	0.21	<1
Port of Seattle 1995	8/24/1994	Area D Sidewall Sand		Benzo(a)pyrene	0.075	0.137	0.21	<1
EcoChem 1997	1/7/1997	SS-4	Surface	Benzo(a)pyrene	0.071 J	0.137	4.2	<1
EcoChem 1997	1/7/1997	SS-13	Surface	Benzo(a)pyrene	0.068 J	0.137	4.2	<1
EcoChem 1997	1/8/1997	SS-3	Surface	Benzo(a)pyrene	0.032 J	0.137	4.2	<1
EcoChem 1997	1/7/1997	SS-6	Surface	Benzo(a)pyrene	0.031 J	0.137	4.2	<1
EcoChem 1997	1/7/1997	SS-22	Surface	Benzo(a)pyrene	0.025 J	0.137	4.2	<1
EcoChem 1997	1/7/1997	SS-8	Surface	Benzo(a)pyrene	0.017 J	0.137	4.2	<1
Erda Environmental 1996	12/1/1994	T #6B D		Benzo(b)fluoranthene	14	1.37	0.45	31
EcoChem 1997	1/8/1997	SS-20	Surface	Benzo(b)fluoranthene	12 J	1.37	9	8.8
EcoChem 1997	1/8/1997	SS-17	Surface	Benzo(b)fluoranthene	6.9 J	1.37	9	5.0
Erda Environmental 1996	12/1/1994	T #3 C	C	Benzo(b)fluoranthene	4.7	1.37	0.45	10
EcoChem 1997	1/7/1997	SS-14	Surface	Benzo(b)fluoranthene	2.9 J	1.37	9	2.1
EcoChem 1997	1/8/1997	SS-18	Surface	Benzo(b)fluoranthene	2.7	1.37	9	2.0
Port of Seattle 1993a	12/7/1992	SS3	0 - 4	Benzo(b)fluoranthene	2.5	1.37	9	1.8
EcoChem 1997	1/7/1997	SS-10	Surface	Benzo(b)fluoranthene	1.5 J	1.37	9	1.1
Olympus 1994	11/24/1993	TP-6		Benzo(b)fluoranthene	0.79	1.37	0.45	1.8
Erda Environmental 1996	12/1/1994	T #3N D		Benzo(b)fluoranthene	0.6	1.37	0.45	1.3
EcoChem 1997	1/7/1997	SS-15	Surface	Benzo(b)fluoranthene	0.51 J	1.37	9	<1
EcoChem 1997	1/8/1997	SS-1	Surface	Benzo(b)fluoranthene	0.5	1.37	9	<1

Table F-5
Chemicals Detected in Soil Samples
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Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
Erda Environmental 1996	12/1/1994	T #2 C	C	Benzo(b)fluoranthene	0.5	1.37	0.45	1.1
Erda Environmental 1996	12/1/1994	T #4 C	C	Benzo(b)fluoranthene	0.45	1.37	0.45	1.0
EcoChem 1997	1/7/1997	SS-7	Surface	Benzo(b)fluoranthene	0.36 J	1.37	9	<1
EcoChem 1997	1/7/1997	SS-11	Surface	Benzo(b)fluoranthene	0.35 J	1.37	9	<1
EcoChem 1997	1/7/1997	SS-21	Surface	Benzo(b)fluoranthene	0.35 J	1.37	9	<1
Erda Environmental 1996	12/1/1994	T #3S D		Benzo(b)fluoranthene	0.32	1.37	0.45	<1
EcoChem 1997	1/7/1997	SS-16	Surface	Benzo(b)fluoranthene	0.3 J	1.37	9	<1
EcoChem 1997	1/7/1997	SS-12	Surface	Benzo(b)fluoranthene	0.26 J	1.37	9	<1
Erda Environmental 1996	12/1/1994	T #3B D		Benzo(b)fluoranthene	0.22	1.37	0.45	<1
Erda Environmental 1996	12/1/1994	T #6 Sides C	C	Benzo(b)fluoranthene	0.19	1.37	0.45	<1
Olympus 1994	11/24/1993	TP-4		Benzo(b)fluoranthene	0.18 J	1.37	0.45	<1
Erda Environmental 1996	12/1/1994	T #1 C	C	Benzo(b)fluoranthene	0.17	1.37	0.45	<1
EcoChem 1997	1/7/1997	SS-7 Dup	Surface	Benzo(b)fluoranthene	0.15 JD	1.37	9	<1
EcoChem 1997	1/7/1997	SS-9	Surface	Benzo(b)fluoranthene	0.14 J	1.37	9	<1
EcoChem 1997	1/7/1997	SS-13	Surface	Benzo(b)fluoranthene	0.096 J	1.37	9	<1
EcoChem 1997	1/7/1997	SS-4	Surface	Benzo(b)fluoranthene	0.079 J	1.37	9	<1
Port of Seattle 1995	8/24/1994	Area D Sidewall Sand		Benzo(b)fluoranthene	0.072	1.37	0.45	<1
EcoChem 1997	1/7/1997	SS-6	Surface	Benzo(b)fluoranthene	0.043 J	1.37	9	<1
EcoChem 1997	1/7/1997	SS-22	Surface	Benzo(b)fluoranthene	0.034 J	1.37	9	<1
EcoChem 1997	1/7/1997	SS-8	Surface	Benzo(b)fluoranthene	0.021 J	1.37	9	<1
Erda Environmental 1996	12/1/1994	T #6B D		Benzo(g,h,i)perylene	68		0.078	872
EcoChem 1997	1/8/1997	SS-17	Surface	Benzo(g,h,i)perylene	2.0 J		1.6	1.3
Erda Environmental 1996	12/1/1994	T #3 C	C	Benzo(g,h,i)perylene	1.7		0.078	22
EcoChem 1997	1/8/1997	SS-20	Surface	Benzo(g,h,i)perylene	1.5 J		1.6	<1
Port of Seattle 1993a	12/7/1992	SS3	0 - 4	Benzo(g,h,i)perylene	1.2		1.6	<1
EcoChem 1997	1/7/1997	SS-14	Surface	Benzo(g,h,i)perylene	0.83 J		1.6	<1
EcoChem 1997	1/8/1997	SS-18	Surface	Benzo(g,h,i)perylene	0.73 J		1.6	<1
Erda Environmental 1996	12/1/1994	T #2 C	C	Benzo(g,h,i)perylene	0.42		0.078	5.4
EcoChem 1997	1/7/1997	SS-10	Surface	Benzo(g,h,i)perylene	0.41 J		1.6	<1
Erda Environmental 1996	12/1/1994	T #3N D		Benzo(g,h,i)perylene	0.4		0.078	5.1
Olympus 1994	11/24/1993	TP-6		Benzo(g,h,i)perylene	0.36 J		0.078	4.6
Erda Environmental 1996	12/1/1994	T #6 C	C	Benzo(g,h,i)perylene	0.3		0.078	3.8
Erda Environmental 1996	12/1/1994	T #4 C	C	Benzo(g,h,i)perylene	0.29		0.078	3.7
Erda Environmental 1996	12/1/1994	T #3S D		Benzo(g,h,i)perylene	0.23		0.078	2.9

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Chemicals Detected in Soil Samples
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Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
EcoChem 1997	1/7/1997	SS-11	Surface	Benzo(g,h,i)perylene	0.22 J		1.6	<1
EcoChem 1997	1/7/1997	SS-21	Surface	Benzo(g,h,i)perylene	0.18 J		1.6	<1
Erda Environmental 1996	12/1/1994	T #1 C	C	Benzo(g,h,i)perylene	0.18		0.078	2.3
EcoChem 1997	1/7/1997	SS-7	Surface	Benzo(g,h,i)perylene	0.15 J		1.6	<1
EcoChem 1997	1/7/1997	SS-12	Surface	Benzo(g,h,i)perylene	0.13 J		1.6	<1
EcoChem 1997	1/7/1997	SS-15	Surface	Benzo(g,h,i)perylene	0.13 J		1.6	<1
EcoChem 1997	1/7/1997	SS-13	Surface	Benzo(g,h,i)perylene	0.095 J		1.6	<1
EcoChem 1997	1/7/1997	SS-7 Dup	Surface	Benzo(g,h,i)perylene	0.072 JD		1.6	<1
EcoChem 1997	1/7/1997	SS-9	Surface	Benzo(g,h,i)perylene	0.064 J		1.6	<1
EcoChem 1997	1/7/1997	SS-16	Surface	Benzo(g,h,i)perylene	0.064 J		1.6	<1
EcoChem 1997	1/7/1997	SS-4	Surface	Benzo(g,h,i)perylene	0.061 J		1.6	<1
EcoChem 1997	1/7/1997	SS-6	Surface	Benzo(g,h,i)perylene	0.024 J		1.6	<1
EcoChem 1997	1/7/1997	SS-22	Surface	Benzo(g,h,i)perylene	0.013 J		1.6	<1
EcoChem 1997	1/7/1997	SS-8	Surface	Benzo(g,h,i)perylene	0.012 J		1.6	<1
Erda Environmental 1996	12/1/1994	T #6B D		Benzo(k)fluoranthene	17	13.7	0.45	38
EcoChem 1997	1/8/1997	SS-20	Surface	Benzo(k)fluoranthene	12 J	13.7	9	1.3
EcoChem 1997	1/8/1997	SS-17	Surface	Benzo(k)fluoranthene	4.7 J	13.7	9	<1
Erda Environmental 1996	12/1/1994	T #3 C	C	Benzo(k)fluoranthene	3.9	13.7	0.45	8.7
EcoChem 1997	1/7/1997	SS-14	Surface	Benzo(k)fluoranthene	3.4 J	13.7	9	<1
EcoChem 1997	1/8/1997	SS-18	Surface	Benzo(k)fluoranthene	2.6	13.7	9	<1
Port of Seattle 1993a	12/7/1992	SS3	0 - 4	Benzo(k)fluoranthene	2.1	13.7	9	<1
EcoChem 1997	1/7/1997	SS-10	Surface	Benzo(k)fluoranthene	1.8 J	13.7	9	<1
Erda Environmental 1996	12/1/1994	T #3N D		Benzo(k)fluoranthene	0.63	13.7	0.45	1.4
EcoChem 1997	1/7/1997	SS-15	Surface	Benzo(k)fluoranthene	0.61 J	13.7	9	<1
Erda Environmental 1996	12/1/1994	T #2 C	C	Benzo(k)fluoranthene	0.56	13.7	0.45	1.2
EcoChem 1997	1/8/1997	SS-1	Surface	Benzo(k)fluoranthene	0.48	13.7	9	<1
EcoChem 1997	1/7/1997	SS-11	Surface	Benzo(k)fluoranthene	0.44 J	13.7	9	<1
Erda Environmental 1996	12/1/1994	T #4 C	C	Benzo(k)fluoranthene	0.41	13.7	0.45	<1
EcoChem 1997	1/7/1997	SS-16	Surface	Benzo(k)fluoranthene	0.4	13.7	9	<1
EcoChem 1997	1/7/1997	SS-7	Surface	Benzo(k)fluoranthene	0.36 J	13.7	9	<1
Erda Environmental 1996	12/1/1994	T #3S D		Benzo(k)fluoranthene	0.36	13.7	0.45	<1
Erda Environmental 1996	12/1/1994	T #1 C	C	Benzo(k)fluoranthene	0.31	13.7	0.45	<1
EcoChem 1997	1/7/1997	SS-21	Surface	Benzo(k)fluoranthene	0.3 J	13.7	9	<1
EcoChem 1997	1/7/1997	SS-12	Surface	Benzo(k)fluoranthene	0.24 J	13.7	9	<1

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Chemicals Detected in Soil Samples
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Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
Erda Environmental 1996	12/1/1994	T #3B D		Benzo(k)fluoranthene	0.19	13.7	0.45	<1
EcoChem 1997	1/7/1997	SS-7 Dup	Surface	Benzo(k)fluoranthene	0.17 JD	13.7	9	<1
Erda Environmental 1996	12/1/1994	T #6 Sides C	C	Benzo(k)fluoranthene	0.17	13.7	0.45	<1
EcoChem 1997	1/7/1997	SS-9	Surface	Benzo(k)fluoranthene	0.14 J	13.7	9	<1
EcoChem 1997	1/7/1997	SS-4	Surface	Benzo(k)fluoranthene	0.078 J	13.7	9	<1
Port of Seattle 1995	8/24/1994	Area D Sidewall Sand		Benzo(k)fluoranthene	0.076	13.7	0.45	<1
EcoChem 1997	1/7/1997	SS-13	Surface	Benzo(k)fluoranthene	0.064 J	13.7	9	<1
EcoChem 1997	1/7/1997	SS-6	Surface	Benzo(k)fluoranthene	0.036 J	13.7	9	<1
EcoChem 1997	1/7/1997	SS-22	Surface	Benzo(k)fluoranthene	0.03 J	13.7	9	<1
EcoChem 1997	1/7/1997	SS-8	Surface	Benzo(k)fluoranthene	0.021 J	13.7	9	<1
EcoChem 1997	1/7/1997	SS-21	Surface	Benzoic Acid	0.15 J	320,000	9.6	<1
EcoChem 1997	1/7/1997	SS-12	Surface	Benzoic Acid	0.1 J	320,000	9.6	<1
EcoChem 1997	1/7/1997	SS-7 Dup	Surface	Benzoic Acid	0.021 JD	320,000	9.6	<1
EcoChem 1997	1/7/1997	SS-6	Surface	Benzoic Acid	0.016 J	320,000	9.6	<1
EcoChem 1997	1/7/1997	SS-8	Surface	Benzoic Acid	0.014 J	320,000	9.6	<1
EcoChem 1997	1/7/1997	SS-22	Surface	Benzoic Acid	0.013 J	320,000	9.6	<1
Port of Seattle 1993a	12/7/1992	SS3	0 - 4	bis(2-Ethylhexyl)phthalate	1.1	71.4	1.6	<1
Port of Seattle 1995	8/24/1994	Area D Sidewall Sand		bis(2-Ethylhexyl)phthalate	0.063	71	0.78	<1
EcoChem 1997	1/7/1997	SS-13	Surface	Butylbenzylphthalate	0.24 J	526	1.3	<1
EcoChem 1997	1/8/1997	SS-3	Surface	Butylbenzylphthalate	0.22 J	526	1.3	<1
EcoChem 1997	1/8/1997	SS-1	Surface	Butylbenzylphthalate	0.19 J	526	1.3	<1
EcoChem 1997	1/7/1997	SS-21	Surface	Butylbenzylphthalate	0.18 J	526	1.3	<1
EcoChem 1997	1/7/1997	SS-10	Surface	Cadmium	10.4	2	34	5.2
Olympus 1994	11/12/1993	TP-3		Cadmium	9.4	2	1.7	5.5
North Creek 1992	2/13/1992	202-0563		Cadmium	6.8	2	1.7	4.0
Port of Seattle 1995	10/11/1994	Area K Confirmation-8		Cadmium	4.5	2	1.7	2.6
North Creek 1992	2/13/1992	202-0564		Cadmium	3.9	2	1.7	2.3
Port of Seattle 1995	10/11/1994	Area K Confirmation-13		Cadmium	3.8	2	1.7	2.2
EcoChem 1997	1/7/1997	SS-7 Dup	Surface	Cadmium	2.8 D	2	34	1.4
Erda Environmental 1996	12/1/1994	T #3N D		Cadmium	2.8	2	1.7	1.6
EcoChem 1997	1/7/1997	SS-7	Surface	Cadmium	2.5	2	34	1.3
Olympus 1994	11/24/1993	TP-4		Cadmium	2.5	2	1.7	1.5
Olympus 1994	11/24/1993	TP-6		Cadmium	2.3	2	1.7	1.4
Olympus 1994	11/24/1993	TP-9		Cadmium	2.3	2	1.7	1.4

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Chemicals Detected in Soil Samples
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Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
EcoChem 1997	1/8/1997	SS-17	Surface	Cadmium	2.2	2	34	1.1
Port of Seattle 1995	10/11/1994	Area K Confirmation-9		Cadmium	2.1	2	1.7	1.2
Olympus 1994	11/24/1993	TP-7		Cadmium	2	2	1.7	1.2
North Creek 1992	2/13/1992	202-0565		Cadmium	1.9	2	1.7	1.1
Erda Environmental 1996	12/1/1994	T #2 C	C	Cadmium	1.9	2	1.7	1.1
Olympus 1994	11/24/1993	TP-5		Cadmium	1.8	2	1.7	1.1
Erda Environmental 1996	12/1/1994	T #3S D		Cadmium	1.6	2	1.7	<1
Erda Environmental 1996	12/1/1994	T #3 C	C	Cadmium	1.2	2	1.7	<1
Erda Environmental 1996	12/1/1994	T #3B D		Cadmium	1.2	2	1.7	<1
EcoChem 1997	1/8/1997	SS-18	Surface	Cadmium	1.1	2	34	<1
Port of Seattle 1995	10/10/1994	Area K Confirmation-6		Cadmium	1.1	2	1.7	<1
EcoChem 1997	1/7/1997	SS-11	Surface	Cadmium	1	2	34	<1
EcoChem 1997	1/8/1997	SS-5 Dup	Surface	Cadmium	0.95 D	2	34	<1
Olympus 1994	11/11/1993	B3-7.5	7.5	Cadmium	0.9	2	1.7	<1
EcoChem 1997	1/7/1997	SS-12	Surface	Cadmium	0.83	2	34	<1
EcoChem 1997	1/7/1997	SS-9	Surface	Cadmium	0.8	2	34	<1
Olympus 1994	11/12/1993	TP-1		Cadmium	0.8	2	1.7	<1
Olympus 1994	11/24/1993	TP-8		Cadmium	0.73	2	1.7	<1
EcoChem 1997	1/7/1997	SS-14	Surface	Cadmium	0.7	2	34	<1
EcoChem 1997	1/7/1997	SS-22	Surface	Cadmium	0.68	2	34	<1
EcoChem 1997	1/8/1997	SS-3	Surface	Cadmium	0.62	2	34	<1
EcoChem 1997	1/7/1997	SS-21	Surface	Cadmium	0.61	2	34	<1
Erda Environmental 1996	12/1/1994	T #6 C	C	Cadmium	0.57	2	1.7	<1
EcoChem 1997	1/7/1997	SS-13	Surface	Cadmium	0.56	2	34	<1
EcoChem 1997	1/8/1997	SS-5	Surface	Cadmium	0.53	2	34	<1
EcoChem 1997	1/7/1997	SS-6	Surface	Cadmium	0.47	2	34	<1
EcoChem 1997	1/8/1997	SS-20	Surface	Cadmium	0.47	2	34	<1
EcoChem 1997	1/8/1997	SS-1	Surface	Cadmium	0.46	2	34	<1
EcoChem 1997	1/8/1997	SS-19	Surface	Cadmium	0.46	2	34	<1
Olympus 1994	11/11/1993	B2-13.5	13.5	Cadmium	0.41	2	1.7	<1
Port of Seattle 1995	10/11/1994	Area K Confirmation-11		Cadmium	0.37	2	1.7	<1
EcoChem 1997	1/7/1997	SS-8	Surface	Cadmium	0.33	2	34	<1
EcoChem 1997	1/7/1997	SS-16	Surface	Cadmium	0.32	2	34	<1
Port of Seattle 1995	10/10/1994	Area K Confirmation-5		Cadmium	0.32	2	1.7	<1

Table F-5
Chemicals Detected in Soil Samples
Terminal 105

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
Erda Environmental 1996	12/1/1994	T #1 C	C	Cadmium	0.32	2	1.7	<1
EcoChem 1997	1/7/1997	SS-15	Surface	Cadmium	0.3	2	34	<1
Port of Seattle 1995	10/10/1994	Area K Confirmation-3		Cadmium	0.17	2	1.7	<1
Port of Seattle 1995	10/11/1994	Area K Confirmation-10		Cadmium	0.12	2	1.7	<1
EcoChem 1997	1/7/1997	SS-10	Surface	Chlordane, total	0.0094 J	2.86		<1
Port of Seattle 1993a	12/7/1992	SS4	0 - 6	Chloroform	0.012 G	800		<1
Port of Seattle 1993a	12/7/1992	SS2	0 - 5.5	Chloroform	0.011 G	800		<1
Port of Seattle 1993a	12/7/1992	SS1	0 - 6	Chloroform	0.01 G	800		<1
Port of Seattle 1993a	12/7/1992	SS3	0 - 4	Chloroform	0.01 G	800		<1
Port of Seattle 1995	10/11/1994	Area K Confirmation-8		Chromium	110	2,000	270	<1
Port of Seattle 1995	10/11/1994	Area K Confirmation-13		Chromium	63	2,000	270	<1
EcoChem 1997	1/8/1997	SS-17	Surface	Chromium	57 J	2,000	5,400	<1
Port of Seattle 1995	10/11/1994	Area K Confirmation-9		Chromium	57	2,000	270	<1
Erda Environmental 1996	12/1/1994	T #3N D		Chromium	49	2,000	270	<1
North Creek 1992	2/13/1992	202-0564		Chromium	40	2,000	270	<1
EcoChem 1997	1/7/1997	SS-4	Surface	Chromium	39.2 J	2,000	5,400	<1
Erda Environmental 1996	12/1/1994	T #2 C	C	Chromium	34	2,000	270	<1
EcoChem 1997	1/8/1997	SS-18	Surface	Chromium	33.4 J	2,000	5,400	<1
Port of Seattle 1995	10/10/1994	Area K Confirmation-6		Chromium	33	2,000	270	<1
Erda Environmental 1996	12/1/1994	T #3 C	C	Chromium	33	2,000	270	<1
EcoChem 1997	1/7/1997	SS-14	Surface	Chromium	32.3 J	2,000	5,400	<1
Erda Environmental 1996	12/1/1994	T #3S D		Chromium	32	2,000	270	<1
EcoChem 1997	1/7/1997	SS-10	Surface	Chromium	30.7 J	2,000	5,400	<1
EcoChem 1997	1/8/1997	SS-1	Surface	Chromium	27.7 J	2,000	5,400	<1
Erda Environmental 1996	12/1/1994	T #3B D		Chromium	26	2,000	270	<1
Olympus 1994	11/24/1993	TP-6		Chromium	24	2,000	270	<1
North Creek 1992	2/13/1992	202-0563		Chromium	22	2,000	270	<1
Erda Environmental 1996	12/1/1994	T #6 C	C	Chromium	22	2,000	270	<1
EcoChem 1997	1/7/1997	SS-22	Surface	Chromium	21.9 J	2,000	5,400	<1
EcoChem 1997	1/7/1997	SS-7 Dup	Surface	Chromium	21.2 JD	2,000	5,400	<1
Port of Seattle 1995	10/10/1994	Area K Confirmation-5		Chromium	20	2,000	270	<1
EcoChem 1997	1/7/1997	SS-11	Surface	Chromium	19.3 J	2,000	5,400	<1
EcoChem 1997	1/7/1997	SS-21	Surface	Chromium	18.4 J	2,000	5,400	<1
Port of Seattle 1995	10/11/1994	Area K Confirmation-11		Chromium	18	2,000	270	<1

Table F-5
Chemicals Detected in Soil Samples
Terminal 105

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
EcoChem 1997	1/7/1997	SS-9	Surface	Chromium	17.8 J	2,000	5,400	<1
EcoChem 1997	1/7/1997	SS-12	Surface	Chromium	17.7 J	2,000	5,400	<1
EcoChem 1997	1/8/1997	SS-5 Dup	Surface	Chromium	16.5 JD	2,000	5,400	<1
Olympus 1994	11/12/1993	TP-3		Chromium	16	2,000	270	<1
Olympus 1994	11/24/1993	TP-5		Chromium	16	2,000	270	<1
EcoChem 1997	1/8/1997	SS-2	Surface	Chromium	15.5 J	2,000	5,400	<1
EcoChem 1997	1/7/1997	SS-16	Surface	Chromium	15.5 J	2,000	5,400	<1
Erda Environmental 1996	12/1/1994	T #1 C	C	Chromium	14	2,000	270	<1
EcoChem 1997	1/8/1997	SS-5	Surface	Chromium	13.6 J	2,000	5,400	<1
EcoChem 1997	1/8/1997	SS-3	Surface	Chromium	13.1 J	2,000	5,400	<1
Port of Seattle 1995	10/10/1994	Area K Confirmation-3		Chromium	13	2,000	270	<1
Port of Seattle 1995	10/11/1994	Area K Confirmation-10		Chromium	13	2,000	270	<1
Port of Seattle 1995	10/11/1994	Area K Confirmation-12		Chromium	13	2,000	270	<1
EcoChem 1997	1/8/1997	SS-20	Surface	Chromium	12.9 J	2,000	5,400	<1
Olympus 1994	11/24/1993	TP-7		Chromium	12	2,000	270	<1
EcoChem 1997	1/7/1997	SS-15	Surface	Chromium	11.1 J	2,000	5,400	<1
Olympus 1994	11/24/1993	TP-8		Chromium	11	2,000	270	<1
Olympus 1994	11/24/1993	TP-9		Chromium	11	2,000	270	<1
Port of Seattle 1995	10/11/1994	Area K Confirmation-7		Chromium	11	2,000	270	<1
EcoChem 1997	1/7/1997	SS-7	Surface	Chromium	10.8 J	2,000	5,400	<1
Port of Seattle 1995	10/10/1994	Area K Confirmation-1		Chromium	9.9	2,000	270	<1
Port of Seattle 1995	10/10/1994	Area K Confirmation-4		Chromium	9.3	2,000	270	<1
Olympus 1994	11/24/1993	TP-4		Chromium	9.2	2,000	270	<1
EcoChem 1997	1/7/1997	SS-13	Surface	Chromium	8.5 J	2,000	5,400	<1
EcoChem 1997	1/7/1997	SS-6	Surface	Chromium	8 J	2,000	5,400	<1
Geo Engineers 1985	6/4/1985	4 (U-7, U-8, U-9)	C	Chromium	7.79	2,000	5,400	<1
Port of Seattle 1995	10/10/1994	Area K Confirmation-2		Chromium	7.5	2,000	270	<1
Geo Engineers 1985	6/4/1985	2 (U-3, U-4)	C	Chromium	6.94	2,000	5,400	<1
EcoChem 1997	1/7/1997	SS-8	Surface	Chromium	6.9 J	2,000	5,400	<1
Geo Engineers 1985	6/4/1985	1 (U-1, U-2)	C	Chromium	6.79	2,000	5,400	<1
Geo Engineers 1985	6/4/1985	3 (U-5, U-6)	C	Chromium	6.47	2,000	5,400	<1
Olympus 1994	11/11/1993	B3-7.5	7.5	Chromium	6	2,000	270	<1
North Creek 1992	2/13/1992	202-0565		Chromium	5.5	2,000	270	<1
Olympus 1994	11/12/1993	TP-1		Chromium	4.9	2,000	270	<1

Table F-5
Chemicals Detected in Soil Samples
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Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
Olympus 1994	11/11/1993	B2-13.5	13.5	Chromium	4.3	2,000	270	<1
Erda Environmental 1996	12/1/1994	T #6B D		Chrysene	38	137	0.46	83
EcoChem 1997	1/8/1997	SS-20	Surface	Chrysene	12	137	9.2	1.3
EcoChem 1997	1/8/1997	SS-17	Surface	Chrysene	6.6 J	137	9.2	<1
Erda Environmental 1996	12/1/1994	T #3 C	C	Chrysene	6.5	137	0.46	14
EcoChem 1997	1/7/1997	SS-14	Surface	Chrysene	4.4	137	9.2	<1
Port of Seattle 1993a	12/7/1992	SS3	0 - 4	Chrysene	4	137	9.2	<1
EcoChem 1997	1/8/1997	SS-18	Surface	Chrysene	3.5	137	9.2	<1
EcoChem 1997	1/7/1997	SS-10	Surface	Chrysene	2.2	137	9.2	<1
EcoChem 1997	1/8/1997	SS-19	Surface	Chrysene	1.9	137	9.2	<1
Erda Environmental 1996	12/1/1994	T #6 C	C	Chrysene	1	137	0.46	2.2
Erda Environmental 1996	12/1/1994	T #3N D		Chrysene	0.87	137	0.46	1.9
Erda Environmental 1996	12/1/1994	T #2 C	C	Chrysene	0.83	137	0.46	1.8
Erda Environmental 1996	12/1/1994	T #4 C	C	Chrysene	0.68	137	0.46	1.5
EcoChem 1997	1/7/1997	SS-15	Surface	Chrysene	0.61	137	9.2	<1
Olympus 1994	11/24/1993	TP-6		Chrysene	0.59 J	137	0.46	1.3
EcoChem 1997	1/8/1997	SS-1	Surface	Chrysene	0.58	137	9.2	<1
EcoChem 1997	1/7/1997	SS-11	Surface	Chrysene	0.54 J	137	9.2	<1
Erda Environmental 1996	12/1/1994	T #3S D		Chrysene	0.51	137	0.46	1.1
Erda Environmental 1996	12/1/1994	T #1 C	C	Chrysene	0.46	137	0.46	1.0
EcoChem 1997	1/7/1997	SS-16	Surface	Chrysene	0.42	137	9.2	<1
EcoChem 1997	1/7/1997	SS-21	Surface	Chrysene	0.38 J	137	9.2	<1
EcoChem 1997	1/7/1997	SS-7	Surface	Chrysene	0.34 J	137	9.2	<1
Erda Environmental 1996	12/1/1994	T #3B D		Chrysene	0.27	137	0.46	<1
Erda Environmental 1996	12/1/1994	T #6 Sides C	C	Chrysene	0.23	137	0.46	<1
EcoChem 1997	1/7/1997	SS-12	Surface	Chrysene	0.21 J	137	9.2	<1
EcoChem 1997	1/7/1997	SS-9	Surface	Chrysene	0.17 J	137	9.2	<1
EcoChem 1997	1/7/1997	SS-9	Surface	Chrysene	0.17 J	137	9.2	<1
EcoChem 1997	1/7/1997	SS-7 Dup	Surface	Chrysene	0.16 JD	137	9.2	<1
Erda Environmental 1996	12/1/1994	T #1B D		Chrysene	0.12	137	0.46	<1
Port of Seattle 1995	8/24/1994	Area D Sidewall Sand		Chrysene	0.1	137	0.46	<1
EcoChem 1997	1/8/1997	SS-5 Dup	Surface	Chrysene	0.097 JD	137	9.2	<1
EcoChem 1997	1/7/1997	SS-4	Surface	Chrysene	0.075 J	137	9.2	<1
EcoChem 1997	1/7/1997	SS-13	Surface	Chrysene	0.066 J	137	9.2	<1

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Chemicals Detected in Soil Samples
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Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
EcoChem 1997	1/8/1997	SS-5	Surface	Chrysene	0.059 J	137	9.2	<1
EcoChem 1997	1/7/1997	SS-6	Surface	Chrysene	0.039 J	137	9.2	<1
EcoChem 1997	1/8/1997	SS-3	Surface	Chrysene	0.035 J	137	9.2	<1
EcoChem 1997	1/7/1997	SS-22	Surface	Chrysene	0.033 J	137	9.2	<1
EcoChem 1997	1/7/1997	SS-8	Surface	Chrysene	0.023 J	137	9.2	<1
EcoChem 1997	1/7/1997	SS-10	Surface	Copper	4,090	3,200	780	5.2
EcoChem 1997	1/7/1997	SS-7 Dup	Surface	Copper	439 JD	3,200	780	<1
EcoChem 1997	1/7/1997	SS-22	Surface	Copper	394 J	3,200	780	<1
Erda Environmental 1996	12/1/1994	T #3N D		Copper	290	3,200	39	7.4
EcoChem 1997	1/8/1997	SS-17	Surface	Copper	284 J	3,200	780	<1
EcoChem 1997	1/7/1997	SS-12	Surface	Copper	274	3,200	780	<1
Olympus 1994	11/24/1993	TP-6		Copper	270 J	3,200	39	6.9
Olympus 1994	11/24/1993	TP-9		Copper	230	3,200	39	5.9
Erda Environmental 1996	12/1/1994	T #2 C	C	Copper	180	3,200	39	4.6
Erda Environmental 1996	12/1/1994	T #3S D		Copper	180	3,200	39	4.6
EcoChem 1997	1/8/1997	SS-18	Surface	Copper	149 J	3,200	780	<1
Erda Environmental 1996	12/1/1994	T #3 C	C	Copper	120	3,200	39	3.1
Erda Environmental 1996	12/1/1994	T #3B D		Copper	120	3,200	39	3.1
EcoChem 1997	1/7/1997	SS-4	Surface	Copper	115 J	3,200	780	<1
EcoChem 1997	1/8/1997	SS-2	Surface	Copper	114 J	3,200	780	<1
EcoChem 1997	1/8/1997	SS-3	Surface	Copper	104 J	3,200	780	<1
Olympus 1994	11/12/1993	TP-3		Copper	100	3,200	39	2.6
EcoChem 1997	1/7/1997	SS-11	Surface	Copper	96	3,200	780	<1
EcoChem 1997	1/7/1997	SS-7	Surface	Copper	86.2	3,200	780	<1
EcoChem 1997	1/8/1997	SS-5	Surface	Copper	80.5 J	3,200	780	<1
EcoChem 1997	1/8/1997	SS-5 Dup	Surface	Copper	80.1 JD	3,200	780	<1
EcoChem 1997	1/7/1997	SS-14	Surface	Copper	74.7 J	3,200	780	<1
EcoChem 1997	1/8/1997	SS-20	Surface	Copper	72.9 J	3,200	780	<1
Olympus 1994	11/24/1993	TP-5		Copper	60	3,200	39	1.5
EcoChem 1997	1/7/1997	SS-21	Surface	Copper	58.2 J	3,200	780	<1
Erda Environmental 1996	12/1/1994	T #6 C	C	Copper	57	3,200	39	1.5
EcoChem 1997	1/7/1997	SS-13	Surface	Copper	54.9	3,200	780	<1
North Creek 1992	2/13/1992	202-0563		Copper	52	3,200	39	1.3
EcoChem 1997	1/7/1997	SS-16	Surface	Copper	50.8 J	3,200	780	<1

Table F-5
Chemicals Detected in Soil Samples
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Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
EcoChem 1997	1/7/1997	SS-15	Surface	Copper	49.1 J	3,200	780	<1
Olympus 1994	11/24/1993	TP-8		Copper	48 J	3,200	39	1.2
EcoChem 1997	1/8/1997	SS-1	Surface	Copper	45.7 J	3,200	780	<1
EcoChem 1997	1/7/1997	SS-9	Surface	Copper	44.1	3,200	780	<1
Olympus 1994	11/24/1993	TP-7		Copper	34 J	3,200	39	<1
North Creek 1992	2/13/1992	202-0564		Copper	24	3,200	39	<1
EcoChem 1997	1/7/1997	SS-6	Surface	Copper	21.8	3,200	780	<1
Erda Environmental 1996	12/1/1994	T #1 C	C	Copper	19	3,200	39	<1
Olympus 1994	11/24/1993	TP-4		Copper	17	3,200	39	<1
EcoChem 1997	1/7/1997	SS-8	Surface	Copper	15.4	3,200	780	<1
Olympus 1994	11/12/1993	TP-1		Copper	14	3,200	39	<1
Olympus 1994	11/11/1993	B3-7.5	7.5	Copper	9.2	3,200	39	<1
North Creek 1992	2/13/1992	202-0565		Copper	8.4	3,200	39	<1
Olympus 1994	11/11/1993	B2-13.5	13.5	Copper	7.8	3,200	39	<1
Port of Seattle 1993a	12/7/1992	SS3	0 - 4	cPAHs, total	16.6	0.137		121
Olympus 1994	11/24/1993	TP-6		cPAHs, total	2.98	0.137		22
Olympus 1994	11/24/1993	TP-4		cPAHs, total	0.18	0.137		1.3
EcoChem 1997	1/8/1997	SS-1	Surface	Cyanide	10	1,600		<1
EcoChem 1997	1/7/1997	SS-9	Surface	Cyanide	1.3	1,600		<1
EcoChem 1997	1/7/1997	SS-4	Surface	Cyanide	0.84	1,600		<1
EcoChem 1997	1/7/1997	SS-7 Dup	Surface	Cyanide	0.71 D	1,600		<1
EcoChem 1997	1/7/1997	SS-16	Surface	Cyanide	0.67 J	1,600		<1
EcoChem 1997	1/7/1997	SS-15	Surface	Cyanide	0.61 J	1,600		<1
EcoChem 1997	1/7/1997	SS-10	Surface	Cyanide	0.53	1,600		<1
EcoChem 1997	1/8/1997	SS-19	Surface	Cyanide	0.5	1,600		<1
EcoChem 1997	1/7/1997	SS-7	Surface	Cyanide	0.43	1,600		<1
EcoChem 1997	1/8/1997	SS-20	Surface	Cyanide	0.43	1,600		<1
EcoChem 1997	1/7/1997	SS-14	Surface	Cyanide	0.39	1,600		<1
EcoChem 1997	1/8/1997	SS-17	Surface	Cyanide	0.38	1,600		<1
EcoChem 1997	1/8/1997	SS-18	Surface	Cyanide	0.34	1,600		<1
EcoChem 1997	1/7/1997	SS-21	Surface	Cyanide	0.27	1,600		<1
EcoChem 1997	1/8/1997	SS-5	Surface	Cyanide	0.22	1,600		<1
EcoChem 1997	1/8/1997	SS-5 Dup	Surface	Cyanide	0.22 D	1,600		<1
EcoChem 1997	1/7/1997	SS-12	Surface	delta-BHC	0.0038			

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Chemicals Detected in Soil Samples
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Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
EcoChem 1997	1/8/1997	SS-20	Surface	Dibenzo(a,h)anthracene	0.53 J	0.137	0.66	3.9
EcoChem 1997	1/8/1997	SS-17	Surface	Dibenzo(a,h)anthracene	0.36 J	0.137	0.66	2.6
EcoChem 1997	1/7/1997	SS-14	Surface	Dibenzo(a,h)anthracene	0.19 J	0.137	0.66	1.4
EcoChem 1997	1/8/1997	SS-18	Surface	Dibenzo(a,h)anthracene	0.16 J	0.137	0.66	1.2
EcoChem 1997	1/7/1997	SS-7	Surface	Dibenzo(a,h)anthracene	0.072 J	0.137	0.66	<1
EcoChem 1997	1/7/1997	SS-15	Surface	Dibenzo(a,h)anthracene	0.053 J	0.137	0.66	<1
EcoChem 1997	1/7/1997	SS-9	Surface	Dibenzo(a,h)anthracene	0.033 J	0.137	0.66	<1
EcoChem 1997	1/7/1997	SS-6	Surface	Dibenzo(a,h)anthracene	0.0094 J	0.137	0.66	<1
EcoChem 1997	1/8/1997	SS-20	Surface	Dibenzofuran	1.4	80	1.2	1.2
EcoChem 1997	1/7/1997	SS-14	Surface	Dibenzofuran	0.35 J	80	1.2	<1
Port of Seattle 1993a	12/7/1992	SS3	0 - 4	Dibenzofuran	0.26	80	1.2	<1
EcoChem 1997	1/7/1997	SS-10	Surface	Dibenzofuran	0.088 J	80	1.2	<1
EcoChem 1997	1/8/1997	SS-18	Surface	Dibenzofuran	0.052 J	80	1.2	<1
EcoChem 1997	1/8/1997	SS-1	Surface	Dibenzofuran	0.025 J	80	1.2	<1
EcoChem 1997	1/7/1997	SS-15	Surface	Dibenzofuran	0.015 J	80	1.2	<1
EcoChem 1997	1/7/1997	SS-14	Surface	Dieldrin	0.023	0.0625		<1
EcoChem 1997	1/8/1997	SS-18	Surface	Dieldrin	0.023	0.0625		<1
EcoChem 1997	1/7/1997	SS-21	Surface	Dieldrin	0.0056	0.0625		<1
EcoChem 1997	1/7/1997	SS-21	Surface	Diesel-range hydrocarbons	340	2,000		<1
EcoChem 1997	1/7/1997	SS-14	Surface	Diesel-range hydrocarbons	330	2,000		<1
EcoChem 1997	1/7/1997	SS-11	Surface	Diesel-range hydrocarbons	210	2,000		<1
EcoChem 1997	1/8/1997	SS-17	Surface	Diesel-range hydrocarbons	190	2,000		<1
EcoChem 1997	1/8/1997	SS-5 Dup	Surface	Diesel-range hydrocarbons	170 D	2,000		<1
EcoChem 1997	1/7/1997	SS-15	Surface	Diesel-range hydrocarbons	150	2,000		<1
EcoChem 1997	1/7/1997	SS-10	Surface	Diesel-range hydrocarbons	110	2,000		<1
EcoChem 1997	1/7/1997	SS-4	Surface	Diesel-range hydrocarbons	100	2,000		<1
EcoChem 1997	1/8/1997	SS-5	Surface	Diesel-range hydrocarbons	100	2,000		<1
EcoChem 1997	1/8/1997	SS-18	Surface	Diesel-range hydrocarbons	77	2,000		<1
EcoChem 1997	1/8/1997	SS-1	Surface	Diesel-range hydrocarbons	74	2,000		<1
EcoChem 1997	1/7/1997	SS-7 Dup	Surface	Diesel-range hydrocarbons	74	2,000		<1
EcoChem 1997	1/8/1997	SS-19	Surface	Diesel-range hydrocarbons	52	2,000		<1
North Creek 1992	2/13/1992	202-0563		Diesel-range hydrocarbons	40	2,000		<1
EcoChem 1997	1/7/1997	SS-12	Surface	Diesel-range hydrocarbons	34	2,000		<1
EcoChem 1997	1/8/1997	SS-20	Surface	Diesel-range hydrocarbons	31	2,000		<1

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Chemicals Detected in Soil Samples
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Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
EcoChem 1997	1/8/1997	SS-3	Surface	Diesel-range hydrocarbons	28	2,000		<1
EcoChem 1997	1/7/1997	SS-16	Surface	Diesel-range hydrocarbons	21	2,000		<1
EcoChem 1997	1/7/1997	SS-7	Surface	Diesel-range hydrocarbons	20	2,000		<1
North Creek 1992	2/13/1992	202-0564		Diesel-range hydrocarbons	15	2,000		<1
EcoChem 1997	1/7/1997	SS-10	Surface	Diethylphthalate	0.059 J	64,000	5.7	<1
EcoChem 1997	1/7/1997	SS-12	Surface	Dimethylphthalate	1.1		1.6	<1
EcoChem 1997	1/7/1997	SS-10	Surface	Dimethylphthalate	0.17 J		1.6	<1
EcoChem 1997	1/8/1997	SS-3	Surface	Dimethylphthalate	0.048 J		1.6	<1
EcoChem 1997	1/7/1997	SS-12	Surface	di-n-Butylphthalate	0.25 J	8,000	39	<1
EcoChem 1997	1/7/1997	SS-7	Surface	di-n-Butylphthalate	0.077 J	8,000	39	<1
EcoChem 1997	1/7/1997	SS-11	Surface	di-n-Butylphthalate	0.05 J	8,000	39	<1
EcoChem 1997	1/7/1997	SS-6	Surface	di-n-Butylphthalate	0.013 J	8,000	39	<1
EcoChem 1997	1/7/1997	SS-22	Surface	di-n-Butylphthalate	0.013 J	8,000	39	<1
EcoChem 1997	1/7/1997	SS-8	Surface	di-n-Butylphthalate	0.011 J	8,000	39	<1
Port of Seattle 1993a	12/7/1992	SS3	0 - 4	Endosulfan Sulfate	0.16			
EcoChem 1997	1/7/1997	SS-21	Surface	Endrin	0.01	24		<1
EcoChem 1997	1/7/1997	SS-15	Surface	Endrin	0.0078	24		<1
EcoChem 1997	1/7/1997	SS-11	Surface	Endrin	0.0061	24		<1
EcoChem 1997	1/7/1997	SS-7	Surface	Endrin	0.0059	24		<1
EcoChem 1997	1/7/1997	SS-9	Surface	Endrin aldehyde	0.023			
EcoChem 1997	1/7/1997	SS-10	Surface	Endrin aldehyde	0.013			
EcoChem 1997	1/7/1997	SS-12	Surface	Endrin aldehyde	0.009			
EcoChem 1997	1/7/1997	SS-11	Surface	Endrin aldehyde	0.007			
EcoChem 1997	1/7/1997	SS-13	Surface	Endrin aldehyde	0.0065			
EcoChem 1997	1/8/1997	SS-17	Surface	Endrin ketone	0.0097 J			
EcoChem 1997	1/8/1997	SS-18	Surface	Endrin ketone	0.0075 J			
EcoChem 1997	1/7/1997	SS-12	Surface	Ethylbenzene	0.003 J	6		<1
Olympus 1994	11/12/1993	TP-1		Ethylbenzene	0.0011 J	6		<1
Erda Environmental 1996	12/1/1994	T #6B D		Fluoranthene	100	3,200	1.2	83
EcoChem 1997	1/8/1997	SS-20	Surface	Fluoranthene	31	3,200	24	1.3
Erda Environmental 1996	12/1/1994	T #3 C	C	Fluoranthene	13	3,200	1.2	11
EcoChem 1997	1/7/1997	SS-14	Surface	Fluoranthene	12	3,200	24	<1
EcoChem 1997	1/8/1997	SS-17	Surface	Fluoranthene	11 J	3,200	24	<1
Port of Seattle 1993a	12/7/1992	SS3	0 - 4	Fluoranthene	7.7	3,200	24	<1

Table F-5
Chemicals Detected in Soil Samples
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Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
EcoChem 1997	1/8/1997	SS-18	Surface	Fluoranthene	6.4	3,200	24	<1
EcoChem 1997	1/7/1997	SS-10	Surface	Fluoranthene	3.5	3,200	24	<1
EcoChem 1997	1/8/1997	SS-19	Surface	Fluoranthene	3.4	3,200	24	<1
Erda Environmental 1996	12/1/1994	T #2 C	C	Fluoranthene	1.7	3,200	1.2	1.4
Erda Environmental 1996	12/1/1994	T #6 C	C	Fluoranthene	1.7	3,200	1.2	1.4
Olympus 1994	11/24/1993	TP-6		Fluoranthene	1.5	3,200	1.2	1.3
Erda Environmental 1996	12/1/1994	T #3N D		Fluoranthene	1.5	3,200	1.2	1.3
Erda Environmental 1996	12/1/1994	T #4 C	C	Fluoranthene	1.3	3,200	1.2	1.1
EcoChem 1997	1/7/1997	SS-11	Surface	Fluoranthene	1.1	3,200	24	<1
EcoChem 1997	1/8/1997	SS-1	Surface	Fluoranthene	1.0	3,200	24	<1
Erda Environmental 1996	12/1/1994	T #3S D		Fluoranthene	1	3,200	1.2	<1
EcoChem 1997	1/7/1997	SS-15	Surface	Fluoranthene	0.93	3,200	24	<1
Erda Environmental 1996	12/1/1994	T #1 C	C	Fluoranthene	0.69	3,200	1.2	<1
EcoChem 1997	1/7/1997	SS-7	Surface	Fluoranthene	0.67 J	3,200	24	<1
EcoChem 1997	1/7/1997	SS-21	Surface	Fluoranthene	0.66 J	3,200	24	<1
EcoChem 1997	1/7/1997	SS-16	Surface	Fluoranthene	0.61	3,200	24	<1
Erda Environmental 1996	12/1/1994	T #3B D		Fluoranthene	0.39	3,200	1.2	<1
EcoChem 1997	1/7/1997	SS-9	Surface	Fluoranthene	0.28	3,200	24	<1
EcoChem 1997	1/7/1997	SS-12	Surface	Fluoranthene	0.27 J	3,200	24	<1
EcoChem 1997	1/7/1997	SS-7 Dup	Surface	Fluoranthene	0.23 JD	3,200	24	<1
Olympus 1994	11/24/1993	TP-4		Fluoranthene	0.22 J	3,200	1.2	<1
Port of Seattle 1995	8/24/1994	Area D Sidewall Sand		Fluoranthene	0.17	3,200	1.2	<1
EcoChem 1997	1/7/1997	SS-4	Surface	Fluoranthene	0.091 J	3,200	24	<1
EcoChem 1997	1/7/1997	SS-13	Surface	Fluoranthene	0.065 J	3,200	24	<1
EcoChem 1997	1/7/1997	SS-6	Surface	Fluoranthene	0.057 J	3,200	24	<1
EcoChem 1997	1/7/1997	SS-22	Surface	Fluoranthene	0.055 J	3,200	24	<1
EcoChem 1997	1/8/1997	SS-3	Surface	Fluoranthene	0.04 J	3,200	24	<1
EcoChem 1997	1/7/1997	SS-8	Surface	Fluoranthene	0.032 J	3,200	24	<1
Erda Environmental 1996	12/1/1994	T #6B D		Fluorene	3.1	3,200	0.081	38
EcoChem 1997	1/7/1997	SS-14	Surface	Fluorene	3	3,200	1.6	1.9
EcoChem 1997	1/8/1997	SS-20	Surface	Fluorene	3	3,200	1.6	1.9
Erda Environmental 1996	12/1/1994	T #3 C	C	Fluorene	0.46	3,200	0.081	5.7
Port of Seattle 1993a	12/7/1992	SS3	0 - 4	Fluorene	0.43	3,200	1.6	<1
Olympus 1994	11/24/1993	TP-6		Fluorene	0.31 J	3,200	0.081	3.8

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Chemicals Detected in Soil Samples
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Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
EcoChem 1997	1/7/1997	SS-10	Surface	Fluorene	0.25 J	3,200	1.6	<1
EcoChem 1997	1/8/1997	SS-18	Surface	Fluorene	0.14 J	3,200	1.6	<1
EcoChem 1997	1/8/1997	SS-17	Surface	Fluorene	0.13 J	3,200	1.6	<1
Erda Environmental 1996	12/1/1994	T #3S D		Fluorene	0.1	3,200	0.081	1.2
Erda Environmental 1996	12/1/1994	T #2 C	C	Fluorene	0.086	3,200	0.081	1.1
EcoChem 1997	1/8/1997	SS-1	Surface	Fluorene	0.077 J	3,200	1.6	<1
EcoChem 1997	1/8/1997	SS-5	Surface	Fluorene	0.07 J	3,200	1.6	<1
Olympus 1994	11/12/1993	TP-2		Heavy oil-range hydrocarbons	21,000	2,000		11
EcoChem 1997	1/7/1997	SS-21	Surface	Heavy oil-range hydrocarbons	2,700	2,000		1.4
EcoChem 1997	1/8/1997	SS-5 Dup	Surface	Heavy oil-range hydrocarbons	1,300 D	2,000		<1
EcoChem 1997	1/8/1997	SS-17	Surface	Heavy oil-range hydrocarbons	1200	2,000		<1
EcoChem 1997	1/8/1997	SS-5	Surface	Heavy oil-range hydrocarbons	960	2,000		<1
EcoChem 1997	1/7/1997	SS-12	Surface	Heavy oil-range hydrocarbons	650	2,000		<1
EcoChem 1997	1/7/1997	SS-10	Surface	Heavy oil-range hydrocarbons	410	2,000		<1
Olympus 1994	11/24/1993	TP-8		Heavy oil-range hydrocarbons	370	2,000		<1
EcoChem 1997	1/7/1997	SS-15	Surface	Heavy oil-range hydrocarbons	330	2,000		<1
EcoChem 1997	1/8/1997	SS-18	Surface	Heavy oil-range hydrocarbons	330	2,000		<1
Olympus 1994	11/12/1993	TP-3		Heavy oil-range hydrocarbons	320	2,000		<1
EcoChem 1997	1/7/1997	SS-7 Dup	Surface	Heavy oil-range hydrocarbons	310	2,000		<1
EcoChem 1997	1/7/1997	SS-14	Surface	Heavy oil-range hydrocarbons	300	2,000		<1
EcoChem 1997	1/7/1997	SS-7	Surface	Heavy oil-range hydrocarbons	260	2,000		<1
EcoChem 1997	1/7/1997	SS-11	Surface	Heavy oil-range hydrocarbons	260	2,000		<1
EcoChem 1997	1/7/1997	SS-4	Surface	Heavy oil-range hydrocarbons	220	2,000		<1
EcoChem 1997	1/8/1997	SS-19	Surface	Heavy oil-range hydrocarbons	200	2,000		<1
Olympus 1994	11/24/1993	TP-6		Heavy oil-range hydrocarbons	200	2,000		<1
EcoChem 1997	1/8/1997	SS-20	Surface	Heavy oil-range hydrocarbons	160	2,000		<1
EcoChem 1997	1/8/1997	SS-1	Surface	Heavy oil-range hydrocarbons	150	2,000		<1
EcoChem 1997	1/7/1997	SS-13	Surface	Heavy oil-range hydrocarbons	150	2,000		<1
Olympus 1994	11/24/1993	TP-5		Heavy oil-range hydrocarbons	140	2,000		<1
EcoChem 1997	1/8/1997	SS-3	Surface	Heavy oil-range hydrocarbons	130	2,000		<1
Port of Seattle 1989	5/10/1989	7 (A north side)	Tank Bottom	Heavy oil-range hydrocarbons	130	2,000		<1
EcoChem 1997	1/7/1997	SS-6	Surface	Heavy oil-range hydrocarbons	110	2,000		<1
EcoChem 1997	1/7/1997	SS-16	Surface	Heavy oil-range hydrocarbons	110	2,000		<1
Olympus 1994	11/24/1993	TP-7		Heavy oil-range hydrocarbons	110	2,000		<1

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Chemicals Detected in Soil Samples
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Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
EcoChem 1997	1/7/1997	SS-9	Surface	Heavy oil-range hydrocarbons	80	2,000		<1
Port of Seattle 1993a	12/7/1992	SS3	0 - 4	Heavy oil-range hydrocarbons	61	2,000		<1
Port of Seattle 1989	5/10/1989	4 (F south end)	Tank Bottom	Heavy oil-range hydrocarbons	58	2,000		<1
Port of Seattle 1989	5/10/1989	6 (F west side)	Tank Bottom	Heavy oil-range hydrocarbons	57	2,000		<1
Erda Environmental 1996	12/1/1994	T #6B D		Indeno(1,2,3-cd)pyrene	83	1.37	0.088	943
Erda Environmental 1996	12/1/1994	T #3 C	C	Indeno(1,2,3-cd)pyrene	2	1.37	0.088	23
EcoChem 1997	1/8/1997	SS-17	Surface	Indeno(1,2,3-cd)pyrene	1.9 J	1.37	1.8	1.4
EcoChem 1997	1/8/1997	SS-20	Surface	Indeno(1,2,3-cd)pyrene	1.9 J	1.37	1.8	1.4
Port of Seattle 1993a	12/7/1992	SS3	0 - 4	Indeno(1,2,3-cd)pyrene	1.6	1.37	1.8	1.2
EcoChem 1997	1/7/1997	SS-14	Surface	Indeno(1,2,3-cd)pyrene	0.78 J	1.37	1.8	<1
EcoChem 1997	1/8/1997	SS-18	Surface	Indeno(1,2,3-cd)pyrene	0.76 J	1.37	1.8	<1
Erda Environmental 1996	12/1/1994	T #2 C	C	Indeno(1,2,3-cd)pyrene	0.44	1.37	0.088	5.0
EcoChem 1997	1/7/1997	SS-10	Surface	Indeno(1,2,3-cd)pyrene	0.43 J	1.37	1.8	<1
Erda Environmental 1996	12/1/1994	T #3N D		Indeno(1,2,3-cd)pyrene	0.43	1.37	0.088	4.9
EcoChem 1997	1/8/1997	SS-19	Surface	Indeno(1,2,3-cd)pyrene	0.37	1.37	1.8	<1
Olympus 1994	11/24/1993	TP-6		Indeno(1,2,3-cd)pyrene	0.34 J	1.37	0.088	3.9
Erda Environmental 1996	12/1/1994	T #6 C	C	Indeno(1,2,3-cd)pyrene	0.33	1.37	0.088	3.8
Erda Environmental 1996	12/1/1994	T #4 C	C	Indeno(1,2,3-cd)pyrene	0.28	1.37	0.088	3.2
Erda Environmental 1996	12/1/1994	T #3S D		Indeno(1,2,3-cd)pyrene	0.26	1.37	0.088	3.0
EcoChem 1997	1/7/1997	SS-11	Surface	Indeno(1,2,3-cd)pyrene	0.18 J	1.37	1.8	<1
Erda Environmental 1996	12/1/1994	T #1 C	C	Indeno(1,2,3-cd)pyrene	0.18	1.37	0.088	2.0
EcoChem 1997	1/7/1997	SS-7	Surface	Indeno(1,2,3-cd)pyrene	0.15 J	1.37	1.8	<1
EcoChem 1997	1/7/1997	SS-15	Surface	Indeno(1,2,3-cd)pyrene	0.13 J	1.37	1.8	<1
EcoChem 1997	1/7/1997	SS-21	Surface	Indeno(1,2,3-cd)pyrene	0.12 J	1.37	1.8	<1
EcoChem 1997	1/7/1997	SS-12	Surface	Indeno(1,2,3-cd)pyrene	0.1 J	1.37	1.8	<1
EcoChem 1997	1/7/1997	SS-7 Dup	Surface	Indeno(1,2,3-cd)pyrene	0.072 JD	1.37	1.8	<1
EcoChem 1997	1/7/1997	SS-16	Surface	Indeno(1,2,3-cd)pyrene	0.071 J	1.37	1.8	<1
EcoChem 1997	1/7/1997	SS-13	Surface	Indeno(1,2,3-cd)pyrene	0.067 J	1.37	1.8	<1
EcoChem 1997	1/7/1997	SS-9	Surface	Indeno(1,2,3-cd)pyrene	0.064 J	1.37	1.8	<1
EcoChem 1997	1/7/1997	SS-4	Surface	Indeno(1,2,3-cd)pyrene	0.047 J	1.37	1.8	<1
EcoChem 1997	1/7/1997	SS-6	Surface	Indeno(1,2,3-cd)pyrene	0.022 J	1.37	1.8	<1
EcoChem 1997	1/7/1997	SS-22	Surface	Indeno(1,2,3-cd)pyrene	0.012 J	1.37	1.8	<1
EcoChem 1997	1/7/1997	SS-8	Surface	Indeno(1,2,3-cd)pyrene	0.011 J	1.37	1.8	<1
Port of Seattle 1995	10/11/1994	Area K Confirmation-8		Lead	1,000	250	1,300	4.0

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Chemicals Detected in Soil Samples
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Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
EcoChem 1997	1/7/1997	SS-12	Surface	Lead	730 J	250	1,300	2.9
Port of Seattle 1995	10/11/1994	Area K Confirmation-13		Lead	660	250	1,300	2.6
Port of Seattle 1995	10/11/1994	Area K Confirmation-9		Lead	620	250	1,300	2.5
EcoChem 1997	1/7/1997	SS-10	Surface	Lead	462 J	250	1,300	1.8
Erda Environmental 1996	12/1/1994	T #3N D		Lead	460	250	67	6.9
Port of Seattle 1995	10/10/1994	Area K Confirmation-6		Lead	390	250	1,300	1.6
Olympus 1994	11/24/1993	TP-9		Lead	340	250	67	5.1
Erda Environmental 1996	12/1/1994	T #2 C	C	Lead	290	250	67	4.3
Erda Environmental 1996	12/1/1994	T #3S D		Lead	280	250	67	4.2
EcoChem 1997	1/7/1997	SS-9	Surface	Lead	240 J	250	1,300	<1
Olympus 1994	11/24/1993	TP-7		Lead	220	250	67	3.3
Erda Environmental 1996	12/1/1994	T #3 C	C	Lead	220	250	67	3.3
EcoChem 1997	1/7/1997	SS-7	Surface	Lead	211 J	250	1,300	<1
Olympus 1994	11/12/1993	TP-3		Lead	190	250	67	2.8
Erda Environmental 1996	12/1/1994	T #3B D		Lead	190	250	67	2.8
Port of Seattle 1995	10/10/1994	Area K Confirmation-5		Lead	180	250	67	2.7
Olympus 1994	11/24/1993	TP-6		Lead	160	250	67	2.4
North Creek 1992	2/13/1992	202-0564		Lead	150	250	67	2
Olympus 1994	11/24/1993	TP-5		Lead	130	250	67	1.9
EcoChem 1997	1/7/1997	SS-11	Surface	Lead	112 J	250	1,300	<1
North Creek 1992	2/13/1992	202-0563		Lead	89	250	67	1
Erda Environmental 1996	12/1/1994	T #6 C	C	Lead	87	250	67	1.3
Port of Seattle 1995	10/11/1994	Area K Confirmation-11		Lead	85	250	67	1.3
Port of Seattle 1995	10/10/1994	Area K Confirmation-3		Lead	78	250	67	1.2
EcoChem 1997	1/7/1997	SS-13	Surface	Lead	66.9 J	250	1,300	<1
Geo Engineers 1985	6/4/1985	4 (U-7, U-8, U-9)	C	Lead	46.8	250	1,300	<1
Olympus 1994	11/24/1993	TP-4		Lead	46	250	67	<1
Port of Seattle 1995	10/11/1994	Area K Confirmation-12		Lead	43	250	67	<1
Geo Engineers 1985	6/4/1985	3 (U-5, U-6)	C	Lead	38.9	250	1,300	<1
EcoChem 1997	1/7/1997	SS-6	Surface	Lead	29.2 J	250	1,300	<1
Erda Environmental 1996	12/1/1994	T #1 C	C	Lead	29	250	67	<1
Geo Engineers 1985	6/4/1985	1 (U-1, U-2)	C	Lead	18.9	250	1,300	<1
Olympus 1994	11/12/1993	TP-1		Lead	17	250	67	<1
EcoChem 1997	1/7/1997	SS-8	Surface	Lead	14.3 J	250	1,300	<1

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Chemicals Detected in Soil Samples
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Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
Olympus 1994	11/24/1993	TP-8		Lead	12	250	67	<1
Geo Engineers 1985	6/4/1985	2 (U-3, U-4)	C	Lead	9.9	250	1,300	<1
Port of Seattle 1995	10/10/1994	Area K Confirmation-4		Lead	8	250	67	<1
North Creek 1992	2/13/1992	202-0565		Lead	7.7	250	67	<1
Olympus 1994	11/11/1993	B2-13.5	13.5	Lead	5.8	250	67	<1
Port of Seattle 1995	10/11/1994	Area K Confirmation-10		Lead	5.8	250	67	<1
Olympus 1994	11/11/1993	B3-7.5	7.5	Lead	4.8	250	67	<1
Port of Seattle 1993a	12/7/1992	SS2	0 - 5.5	Lindane	0.0025	0.01		<1
Erda Environmental 1996	12/1/1994	T #3N D		Mercury	1.1	2	0.03	37
EcoChem 1997	1/7/1997	SS-10	Surface	Mercury	0.75 J	2	0.59	1.3
Erda Environmental 1996	12/1/1994	T #3 C	C	Mercury	0.71	2	0.03	24
Erda Environmental 1996	12/1/1994	T #2 C	C	Mercury	0.67	2	0.03	22
Erda Environmental 1996	12/1/1994	T #6 C	C	Mercury	0.67	2	0.03	22
Erda Environmental 1996	12/1/1994	T #1 C	C	Mercury	0.66	2	0.03	22
Geo Engineers 1985	6/4/1985	4 (U-7, U-8, U-9)	C	Mercury	0.5	2	0.59	<1
EcoChem 1997	1/7/1997	SS-12	Surface	Mercury	0.47 J	2	0.59	<1
EcoChem 1997	1/7/1997	SS-9	Surface	Mercury	0.38 J	2	0.59	<1
EcoChem 1997	1/7/1997	SS-13	Surface	Mercury	0.32 J	2	0.59	<1
EcoChem 1997	1/7/1997	SS-7	Surface	Mercury	0.28 J	2	0.59	<1
Olympus 1994	11/24/1993	TP-6		Mercury	0.26	2	0.03	8.7
EcoChem 1997	1/7/1997	SS-7 Dup	Surface	Mercury	0.21 JD	2	0.59	<1
EcoChem 1997	1/7/1997	SS-14	Surface	Mercury	0.14 J	2	0.59	<1
Olympus 1994	11/12/1993	TP-1		Mercury	0.13	2	0.03	4.3
EcoChem 1997	1/7/1997	SS-21	Surface	Mercury	0.12 J	2	0.59	<1
EcoChem 1997	1/8/1997	SS-5	Surface	Mercury	0.11 J	2	0.59	<1
EcoChem 1997	1/8/1997	SS-5 Dup	Surface	Mercury	0.11 JD	2	0.59	<1
EcoChem 1997	1/7/1997	SS-16	Surface	Mercury	0.11 J	2	0.59	<1
EcoChem 1997	1/8/1997	SS-17	Surface	Mercury	0.11 J	2	0.59	<1
North Creek 1992	2/13/1992	202-0563		Mercury	0.089	2	0.03	3.0
North Creek 1992	2/13/1992	202-0564		Mercury	0.074	2	0.03	2
Geo Engineers 1985	6/4/1985	3 (U-5, U-6)	C	Mercury	0.008	2	0.59	<1
Port of Seattle 1993a	12/7/1992	SS1	0 - 6	Methylene chloride	0.12 G	0.02		6.0
Port of Seattle 1993a	12/7/1992	SS3	0 - 4	Methylene chloride	0.072 G	0.02		3.6
Olympus 1994	11/24/1993	TP-4		Methylene chloride	0.061	0.02		3.1

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Chemicals Detected in Soil Samples
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Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
Olympus 1994	11/24/1993	TP-6		Methylene chloride	0.061	0.02		3.1
Olympus 1994	11/24/1993	TP-7		Methylene chloride	0.061	0.02		3.1
Olympus 1994	11/24/1993	TP-8		Methylene chloride	0.061	0.02		3.1
Port of Seattle 1993a	12/7/1992	SS2	0 - 5.5	Methylene chloride	0.035 G	0.02		1.8
Olympus 1994	11/24/1993	TP-5		Methylene chloride	0.028	0.02		1.4
Olympus 1994	11/24/1993	TP-9		Methylene chloride	0.028	0.02		1.4
EcoChem 1997	1/7/1997	SS-21	Surface	Methylene chloride	0.027	0.02		1.4
EcoChem 1997	1/7/1997	SS-12	Surface	Methylene chloride	0.019	0.02		<1
Port of Seattle 1995	8/24/1994	Area D Sidewall Sand		Methylene chloride	0.01	0.02		<1
Olympus 1994	11/12/1993	TP-3		Methylene chloride	0.0061	0.02		<1
Olympus 1994	11/11/1993	B2-13.5	13.5	Methylene chloride	0.0032 J	0.02		<1
Olympus 1994	11/12/1993	TP-1		Methylene chloride	0.0031 J	0.02		<1
Olympus 1994	11/11/1993	B3-7.5	7.5	Methylene chloride	0.0025 J	0.02		<1
EcoChem 1997	1/8/1997	SS-5	Surface	Naphthalene	11 J	5	3.8	2.9
EcoChem 1997	1/8/1997	SS-20	Surface	Naphthalene	0.29 J	5	3.8	<1
Port of Seattle 1993a	12/7/1992	SS3	0 - 4	Naphthalene	0.24	5	3.8	<1
Olympus 1994	11/24/1993	TP-6		Naphthalene	0.091 J	5	0.2	<1
EcoChem 1997	1/8/1997	SS-1	Surface	Naphthalene	0.081 J	5	3.8	<1
EcoChem 1997	1/7/1997	SS-12	Surface	Naphthalene	0.033 J	5	3.8	<1
EcoChem 1997	1/7/1997	SS-10	Surface	Naphthalene	0.026 J	5	3.8	<1
EcoChem 1997	1/7/1997	SS-7 Dup	Surface	Naphthalene	0.016 JD	5	3.8	<1
EcoChem 1997	1/8/1997	SS-5 Dup	Surface	Naphthalene	0.013 JD	5	3.8	<1
EcoChem 1997	1/7/1997	SS-9	Surface	Naphthalene	0.0078 J	5	3.8	<1
Olympus 1994	11/12/1993	TP-3		Nickel	380			
North Creek 1992	2/13/1992	202-0563		Nickel	79			
EcoChem 1997	1/8/1997	SS-2	Surface	Nickel	42.9 J			
EcoChem 1997	1/7/1997	SS-4	Surface	Nickel	41.5 J			
EcoChem 1997	1/8/1997	SS-17	Surface	Nickel	35 J			
EcoChem 1997	1/7/1997	SS-22	Surface	Nickel	34.7 J			
EcoChem 1997	1/7/1997	SS-7 Dup	Surface	Nickel	34.5 JD			
North Creek 1992	2/13/1992	202-0564		Nickel	34			
EcoChem 1997	1/7/1997	SS-14	Surface	Nickel	32.8 J			
EcoChem 1997	1/8/1997	SS-3	Surface	Nickel	30.4 J			
EcoChem 1997	1/8/1997	SS-18	Surface	Nickel	27.2 J			

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Chemicals Detected in Soil Samples
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Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
Olympus 1994	11/24/1993	TP-6		Nickel	26			
EcoChem 1997	1/8/1997	SS-1	Surface	Nickel	25.2 J			
Olympus 1994	11/24/1993	TP-5		Nickel	25			
EcoChem 1997	1/7/1997	SS-10	Surface	Nickel	22.3			
EcoChem 1997	1/8/1997	SS-5 Dup	Surface	Nickel	19.5 JD			
Olympus 1994	11/24/1993	TP-7		Nickel	18			
EcoChem 1997	1/7/1997	SS-11	Surface	Nickel	17.3			
EcoChem 1997	1/8/1997	SS-5	Surface	Nickel	17.2 J			
EcoChem 1997	1/7/1997	SS-21	Surface	Nickel	16.7 J			
EcoChem 1997	1/7/1997	SS-16	Surface	Nickel	16.3 J			
EcoChem 1997	1/7/1997	SS-12	Surface	Nickel	15.3			
Olympus 1994	11/24/1993	TP-9		Nickel	15			
EcoChem 1997	1/7/1997	SS-7	Surface	Nickel	13.6			
EcoChem 1997	1/8/1997	SS-20	Surface	Nickel	13.5 J			
EcoChem 1997	1/7/1997	SS-9	Surface	Nickel	12.6			
Olympus 1994	11/24/1993	TP-8		Nickel	11			
Olympus 1994	11/24/1993	TP-4		Nickel	10			
EcoChem 1997	1/7/1997	SS-15	Surface	Nickel	9.1 J			
EcoChem 1997	1/7/1997	SS-13	Surface	Nickel	7.5			
Olympus 1994	11/11/1993	B3-7.5	7.5	Nickel	7			
EcoChem 1997	1/7/1997	SS-6	Surface	Nickel	6.8			
Geo Engineers 1985	6/4/1985	1 (U-1, U-2)	C	Nickel	6.79			
EcoChem 1997	1/7/1997	SS-8	Surface	Nickel	6.5			
Geo Engineers 1985	6/4/1985	4 (U-7, U-8, U-9)	C	Nickel	6.33			
Geo Engineers 1985	6/4/1985	2 (U-3, U-4)	C	Nickel	5.95			
Olympus 1994	11/12/1993	TP-1		Nickel	5.6			
Geo Engineers 1985	6/4/1985	3 (U-5, U-6)	C	Nickel	4.98			
Olympus 1994	11/11/1993	B2-13.5	13.5	Nickel	4.6			
North Creek 1992	2/13/1992	202-0565		Nickel	3.4			
EcoChem 1997	1/7/1997	SS-14	Surface	n-Nitrosodiphenylamine	0.13 J	204	0.23	<1
EcoChem 1997	1/7/1997	SS-12	Surface	n-Nitrosodiphenylamine	0.038 J	204	0.23	<1
EcoChem 1997	1/7/1997	SS-15	Surface	n-Nitrosodiphenylamine	0.013 J	204	0.23	<1
EcoChem 1997	1/7/1997	SS-10	Surface	P,P'-DDD	0.054	4.17		<1
EcoChem 1997	1/7/1997	SS-12	Surface	P,P'-DDD	0.036	4.17		<1

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Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
EcoChem 1997	1/7/1997	SS-12	Surface	P,P'-DDE	0.14	2.94		<1
EcoChem 1997	1/7/1997	SS-10	Surface	P,P'-DDE	0.09	2.94		<1
Port of Seattle 1993a	12/7/1992	SS3	0 - 4	P,P'-DDE	0.032	2.94		<1
EcoChem 1997	1/7/1997	SS-21	Surface	P,P'-DDE	0.011	2.94		<1
EcoChem 1997	1/8/1997	SS-18	Surface	P,P'-DDE	0.0063	2.94		<1
EcoChem 1997	1/7/1997	SS-12	Surface	P,P'-DDT	0.71	2.94		<1
EcoChem 1997	1/7/1997	SS-10	Surface	P,P'-DDT	0.59	2.94		<1
EcoChem 1997	1/7/1997	SS-21	Surface	P,P'-DDT	0.017	2.94		<1
EcoChem 1997	1/7/1997	SS-13	Surface	P,P'-DDT	0.014	2.94		<1
EcoChem 1997	1/7/1997	SS-9	Surface	P,P'-DDT	0.013	2.94		<1
EcoChem 1997	1/7/1997	SS-11	Surface	P,P'-DDT	0.012	2.94		<1
EcoChem 1997	1/7/1997	SS-7 Dup	Surface	P,P'-DDT	0.0093 D	2.94		<1
EcoChem 1997	1/7/1997	SS-7	Surface	P,P'-DDT	0.008	2.94		<1
Port of Seattle 1989	9/1/1989	3 Tank T-105F (Bottom)	Tank Bottom	PCBs, total	4.8	0.5	0.065	74
Erda Environmental 1996	12/1/1994	T #3N D		PCBs, total	1.5	0.5	0.065	23
Olympus 1994	11/24/1993	TP-5		PCBs, total	1.4	0.5	0.065	22
Port of Seattle 1993a	12/7/1992	SS3	0 - 4	PCBs, total	1.4	0.5	1.3	2.8
Erda Environmental 1996	12/1/1994	T #3 C	C	PCBs, total	1.34	0.5	0.065	21
Port of Seattle 1989	9/1/1989	4 Tank T-105F (East end)	Tank Bottom	PCBs, total	0.94	0.5	0.065	14
Olympus 1994	11/24/1993	TP-6		PCBs, total	0.9	0.5	0.065	14
EcoChem 1997	1/7/1997	SS-10	Surface	PCBs, total	0.83	0.5	1.3	1.7
Erda Environmental 1996	12/1/1994	T #2 C	C	PCBs, total	0.73	0.5	0.065	11
Olympus 1994	11/12/1993	TP-3		PCBs, total	0.7	0.5	0.065	11
EcoChem 1997	1/7/1997	SS-21	Surface	PCBs, total	0.61	0.5	1.3	1.2
EcoChem 1997	1/8/1997	SS-17	Surface	PCBs, total	0.56	0.5	1.3	1.1
EcoChem 1997	1/7/1997	SS-9	Surface	PCBs, total	0.51	0.5	1.3	1.0
Erda Environmental 1996	12/1/1994	T #3S D		PCBs, total	0.5	0.5	0.065	7.7
Erda Environmental 1996	12/1/1994	T #3B D		PCBs, total	0.31	0.5	0.065	4.8
EcoChem 1997	1/7/1997	SS-11	Surface	PCBs, total	0.29	0.5	1.3	<1
EcoChem 1997	1/8/1997	SS-18	Surface	PCBs, total	0.26	0.5	1.3	<1
Erda Environmental 1996	12/1/1994	T #6 Sides C	C	PCBs, total	0.26	0.5	0.065	4.0
Erda Environmental 1996	12/1/1994	T #6 C	C	PCBs, total	0.259	0.5	0.065	4.0
EcoChem 1997	1/7/1997	SS-15	Surface	PCBs, total	0.24	0.5	1.3	<1
EcoChem 1997	1/7/1997	SS-14	Surface	PCBs, total	0.23	0.5	1.3	<1

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Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
Erda Environmental 1996	12/1/1994	T #6B D		PCBs, total	0.23	0.5	0.065	3.5
EcoChem 1997	1/7/1997	SS-12	Surface	PCBs, total	0.17	0.5	1.3	<1
EcoChem 1997	1/8/1997	SS-19	Surface	PCBs, total	0.17	0.5	1.3	<1
EcoChem 1997	1/8/1997	SS-20	Surface	PCBs, total	0.13	0.5	1.3	<1
Erda Environmental 1996	12/1/1994	T #1 C	C	PCBs, total	0.103	0.5	0.065	1.6
EcoChem 1997	1/7/1997	SS-16	Surface	PCBs, total	0.091	0.5	1.3	<1
EcoChem 1997	1/7/1997	SS-13	Surface	PCBs, total	0.081	0.5	1.3	<1
EcoChem 1997	1/8/1997	SS-1	Surface	PCBs, total	0.064	0.5	1.3	<1
EcoChem 1997	1/7/1997	SS-7	Surface	PCBs, total	0.051 J	0.5	1.3	<1
Erda Environmental 1996	12/1/1994	T #1B D		PCBs, total	0.049	0.5	0.065	<1
EcoChem 1997	1/7/1997	SS-7 Dup	Surface	PCBs, total	0.041 JD	0.5	1.3	<1
EcoChem 1997	1/8/1997	SS-5	Surface	PCBs, total	0.04 J	0.5	1.3	<1
EcoChem 1997	1/8/1997	SS-5 Dup	Surface	PCBs, total	0.037 JD	0.5	1.3	<1
EcoChem 1997	1/8/1997	SS-5 Dup	Surface	Pentachlorophenol	140 JD	2.5	0.73	192
EcoChem 1997	1/7/1997	SS-10	Surface	Pentachlorophenol	0.68 J	2.5	0.73	<1
EcoChem 1997	1/8/1997	SS-5	Surface	Pentachlorophenol	0.17 J	2.5	0.73	<1
Erda Environmental 1996	12/1/1994	T #6B D		Phenanthrene	49		0.49	100
EcoChem 1997	1/8/1997	SS-5	Surface	Phenanthrene	37 J		9.7	3.8
EcoChem 1997	1/8/1997	SS-20	Surface	Phenanthrene	25		9.7	2.6
EcoChem 1997	1/7/1997	SS-14	Surface	Phenanthrene	11		9.7	1.1
Erda Environmental 1996	12/1/1994	T #3 C	C	Phenanthrene	6.4		0.49	13
Port of Seattle 1993a	12/7/1992	SS3	0 - 4	Phenanthrene	4.7		9.7	<1
EcoChem 1997	1/7/1997	SS-10	Surface	Phenanthrene	3.1		9.7	<1
EcoChem 1997	1/8/1997	SS-18	Surface	Phenanthrene	2.7		9.7	<1
EcoChem 1997	1/8/1997	SS-17	Surface	Phenanthrene	2.5 J		9.7	<1
EcoChem 1997	1/8/1997	SS-19	Surface	Phenanthrene	2		9.7	<1
Olympus 1994	11/24/1993	TP-6		Phenanthrene	2.0		0.49	4.1
Erda Environmental 1996	12/1/1994	T #2 C	C	Phenanthrene	0.89		0.49	1.8
EcoChem 1997	1/8/1997	SS-1	Surface	Phenanthrene	0.84		9.7	<1
Erda Environmental 1996	12/1/1994	T #3N D		Phenanthrene	0.79		0.49	1.6
Erda Environmental 1996	12/1/1994	T #3S D		Phenanthrene	0.78		0.49	1.6
Erda Environmental 1996	12/1/1994	T #4 C	C	Phenanthrene	0.52		0.49	1.1
EcoChem 1997	1/7/1997	SS-11	Surface	Phenanthrene	0.5 J		9.7	<1
Erda Environmental 1996	12/1/1994	T #1 C	C	Phenanthrene	0.49		0.49	1.0

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Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
Erda Environmental 1996	12/1/1994	T #6 C	C	Phenanthrene	0.41		0.49	<1
EcoChem 1997	1/7/1997	SS-15	Surface	Phenanthrene	0.36		9.7	<1
EcoChem 1997	1/7/1997	SS-7	Surface	Phenanthrene	0.32 J		9.7	<1
Olympus 1994	11/24/1993	TP-4		Phenanthrene	0.24 J		0.49	<1
EcoChem 1997	1/7/1997	SS-21	Surface	Phenanthrene	0.21 J		9.7	<1
Erda Environmental 1996	12/1/1994	T #3B D		Phenanthrene	0.21		0.49	<1
Port of Seattle 1995	8/24/1994	Area D Sidewall Sand		Phenanthrene	0.17		0.49	<1
EcoChem 1997	1/7/1997	SS-16	Surface	Phenanthrene	0.16 J		9.7	<1
EcoChem 1997	1/7/1997	SS-12	Surface	Phenanthrene	0.15 J		9.7	<1
EcoChem 1997	1/7/1997	SS-7 Dup	Surface	Phenanthrene	0.1 JD		9.7	<1
EcoChem 1997	1/8/1997	SS-5 Dup	Surface	Phenanthrene	0.088 JD		9.7	<1
EcoChem 1997	1/7/1997	SS-9	Surface	Phenanthrene	0.084 J		9.7	<1
EcoChem 1997	1/7/1997	SS-4	Surface	Phenanthrene	0.066 J		9.7	<1
EcoChem 1997	1/7/1997	SS-22	Surface	Phenanthrene	0.032 J		9.7	<1
EcoChem 1997	1/8/1997	SS-3	Surface	Phenanthrene	0.028 J		9.7	<1
EcoChem 1997	1/7/1997	SS-6	Surface	Phenanthrene	0.027 J		9.7	<1
EcoChem 1997	1/7/1997	SS-8	Surface	Phenanthrene	0.01 J		9.7	<1
Erda Environmental 1996	12/1/1994	T #6B D		Pyrene	100	2,400	1.4	71
EcoChem 1997	1/8/1997	SS-5	Surface	Pyrene	98 J	2,400	28	3.5
EcoChem 1997	1/8/1997	SS-20	Surface	Pyrene	27 J	2,400	28	<1
Erda Environmental 1996	12/1/1994	T #3 C	C	Pyrene	14	2,400	1.4	10
EcoChem 1997	1/7/1997	SS-14	Surface	Pyrene	12	2,400	28	<1
EcoChem 1997	1/8/1997	SS-17	Surface	Pyrene	12 J	2,400	28	<1
Port of Seattle 1993a	12/7/1992	SS3	0 - 4	Pyrene	7.8	2,400	28	<1
EcoChem 1997	1/7/1997	SS-10	Surface	Pyrene	6.1	2,400	28	<1
EcoChem 1997	1/8/1997	SS-18	Surface	Pyrene	5.7	2,400	28	<1
EcoChem 1997	1/8/1997	SS-19	Surface	Pyrene	3.3	2,400	28	<1
Olympus 1994	11/24/1993	TP-6		Pyrene	2.1	2,400	1.4	1.5
Erda Environmental 1996	12/1/1994	T #6 C	C	Pyrene	1.9	2,400	1.4	1.4
Erda Environmental 1996	12/1/1994	T #3N D		Pyrene	1.8	2,400	1.4	1.3
Erda Environmental 1996	12/1/1994	T #2 C	C	Pyrene	1.3	2,400	1.4	<1
EcoChem 1997	1/8/1997	SS-1	Surface	Pyrene	1.2	2,400	28	<1
EcoChem 1997	1/7/1997	SS-15	Surface	Pyrene	1.1	2,400	28	<1
Erda Environmental 1996	12/1/1994	T #4 C	C	Pyrene	1.1	2,400	1.4	<1

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EcoChem 1997	1/7/1997	SS-21	Surface	Pyrene	0.96	2,400	28	<1
EcoChem 1997	1/7/1997	SS-11	Surface	Pyrene	0.95 J	2,400	28	<1
Erda Environmental 1996	12/1/1994	T #3S D		Pyrene	0.92	2,400	1.4	<1
Erda Environmental 1996	12/1/1994	T #1 C	C	Pyrene	0.83	2,400	1.4	<1
EcoChem 1997	1/7/1997	SS-16	Surface	Pyrene	0.71	2,400	28	<1
Erda Environmental 1996	12/1/1994	T #6 Sides C	C	Pyrene	0.59	2,400	1.4	<1
EcoChem 1997	1/7/1997	SS-7	Surface	Pyrene	0.54 J	2,400	28	<1
Erda Environmental 1996	12/1/1994	T #3B D		Pyrene	0.46	2,400	1.4	<1
EcoChem 1997	1/7/1997	SS-12	Surface	Pyrene	0.42	2,400	28	<1
Olympus 1994	11/24/1993	TP-4		Pyrene	0.29 J	2,400	1.4	<1
EcoChem 1997	1/7/1997	SS-9	Surface	Pyrene	0.25	2,400	28	<1
EcoChem 1997	1/8/1997	SS-5	Surface	Pyrene	0.24	2,400	28	<1
EcoChem 1997	1/7/1997	SS-7 Dup	Surface	Pyrene	0.23 JD	2,400	28	<1
Port of Seattle 1995	8/24/1994	Area D Sidewall Sand		Pyrene	0.16	2,400	1.4	<1
EcoChem 1997	1/7/1997	SS-4	Surface	Pyrene	0.12 J	2,400	28	<1
EcoChem 1997	1/7/1997	SS-13	Surface	Pyrene	0.062 J	2,400	28	<1
EcoChem 1997	1/7/1997	SS-22	Surface	Pyrene	0.056 J	2,400	28	<1
EcoChem 1997	1/8/1997	SS-3	Surface	Pyrene	0.053 J	2,400	28	<1
EcoChem 1997	1/7/1997	SS-6	Surface	Pyrene	0.046 J	2,400	28	<1
EcoChem 1997	1/7/1997	SS-8	Surface	Pyrene	0.03 J	2,400	28	<1
EcoChem 1997	1/7/1997	SS-11	Surface	Selenium	6 J	400		<1
EcoChem 1997	1/7/1997	SS-7 Dup	Surface	Selenium	0.65 JD	400		<1
Olympus 1994	11/24/1993	TP-9		Silver	1.6	400	0.61	2.6
Olympus 1994	11/12/1993	TP-3		Silver	1.4	400	0.61	2.3
Olympus 1994	11/24/1993	TP-8		Silver	0.73	400	0.61	1.2
EcoChem 1997	1/8/1997	SS-17	Surface	Silver	0.63	400	12	<1
EcoChem 1997	1/7/1997	SS-10	Surface	Silver	0.61	400	12	<1
EcoChem 1997	1/8/1997	SS-18	Surface	Silver	0.3	400	12	<1
EcoChem 1997	1/8/1997	SS-19	Surface	Silver	0.28	400	12	<1
EcoChem 1997	1/7/1997	SS-12	Surface	Silver	0.2	400	12	<1
EcoChem 1997	1/7/1997	SS-14	Surface	Silver	0.19	400	12	<1
EcoChem 1997	1/7/1997	SS-21	Surface	Silver	0.18	400	12	<1
EcoChem 1997	1/8/1997	SS-20	Surface	Silver	0.14	400	12	<1
EcoChem 1997	1/7/1997	SS-4	Surface	Silver	0.13	400	12	<1

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Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
EcoChem 1997	1/7/1997	SS-7 Dup	Surface	Silver	0.12 D	400	12	<1
EcoChem 1997	1/7/1997	SS-11	Surface	Silver	0.12	400	12	<1
EcoChem 1997	1/7/1997	SS-16	Surface	Silver	0.12	400	12	<1
EcoChem 1997	1/7/1997	SS-7	Surface	Silver	0.11	400	12	<1
EcoChem 1997	1/7/1997	SS-15	Surface	Silver	0.11	400	12	<1
EcoChem 1997	1/8/1997	SS-5	Surface	Silver	0.09	400	12	<1
EcoChem 1997	1/7/1997	SS-9	Surface	Silver	0.09	400	12	<1
EcoChem 1997	1/7/1997	SS-22	Surface	Silver	0.09	400	12	<1
EcoChem 1997	1/8/1997	SS-5 Dup	Surface	Silver	0.08 D	400	12	<1
EcoChem 1997	1/8/1997	SS-1	Surface	Silver	0.07	400	12	<1
EcoChem 1997	1/7/1997	SS-13	Surface	Silver	0.07	400	12	<1
Geo Engineers 1985	6/4/1985	1 (U-1, U-2)	C	Silver	0.05	400	12	<1
Geo Engineers 1985	6/4/1985	2 (U-3, U-4)	C	Silver	0.05	400	12	<1
Geo Engineers 1985	6/4/1985	3 (U-5, U-6)	C	Silver	0.05	400	12	<1
Geo Engineers 1985	6/4/1985	4 (U-7, U-8, U-9)	C	Silver	0.05	400	12	<1
EcoChem 1997	1/8/1997	SS-2	Surface	Silver	0.04	400	12	<1
EcoChem 1997	1/8/1997	SS-3	Surface	Silver	0.04	400	12	<1
EcoChem 1997	1/7/1997	SS-6	Surface	Silver	0.03	400	12	<1
EcoChem 1997	1/7/1997	SS-8	Surface	Silver	0.03	400	12	<1
Port of Seattle 1989	5/10/1989	4 (F south end)	Tank Bottom	Toluene	5	7		<1
Port of Seattle 1989	5/10/1989	8 (A east end)	Tank Bottom	Toluene	5	7		<1
Port of Seattle 1989	5/10/1989	9 (A west end)	Tank Bottom	Toluene	5	7		<1
EcoChem 1997	1/7/1997	SS-12	Surface	Toluene	0.003	7		<1
Olympus 1994	11/24/1993	TP-4		Toluene	0.0027 J	7		<1
Olympus 1994	11/24/1993	TP-6		Toluene	0.0027	7		<1
Olympus 1994	11/24/1993	TP-7		Toluene	0.0027	7		<1
Olympus 1994	11/24/1993	TP-8		Toluene	0.0027	7		<1
Olympus 1994	11/24/1993	TP-5		Toluene	0.0025 J	7		<1
Olympus 1994	11/24/1993	TP-9		Toluene	0.0025	7		<1
Olympus 1994	11/12/1993	TP-1		Toluene	0.0024 J	7		<1
Olympus 1994	11/11/1993	B3-7.5	7.5	Toluene	0.0019 J	7		<1
Port of Seattle 1995	10/10/1994	Area K Confirmation-6		Total petroleum hydrocarbons	610	2,000		<1
Port of Seattle 1995	10/11/1994	Area K Confirmation-8		Total petroleum hydrocarbons	530	2,000		<1
Erda Environmental 1996	12/1/1994	T #3 C	C	Total petroleum hydrocarbons	510	2,000		<1

Table F-5
Chemicals Detected in Soil Samples
Terminal 105

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
Erda Environmental 1996	12/1/1994	T #5 C	C	Total petroleum hydrocarbons	380	2,000		<1
Port of Seattle 1995	10/11/1994	Area K Confirmation-13		Total petroleum hydrocarbons	360	2,000		<1
Erda Environmental 1996	12/1/1994	T #4 C	C	Total petroleum hydrocarbons	250	2,000		<1
Port of Seattle 1995	10/11/1994	Area K Confirmation-9		Total petroleum hydrocarbons	160	2,000		<1
Erda Environmental 1996	12/1/1994	T #2 C	C	Total petroleum hydrocarbons	140	2,000		<1
Erda Environmental 1996	12/1/1994	T #6 C	C	Total petroleum hydrocarbons	120	2,000		<1
Port of Seattle 1995	10/10/1994	Area K Confirmation-5		Total petroleum hydrocarbons	100	2,000		<1
Port of Seattle 1995	10/11/1994	Area K Confirmation-12		Total petroleum hydrocarbons	67	2,000		<1
Port of Seattle 1995	10/10/1994	Area K Confirmation-3		Total petroleum hydrocarbons	55	2,000		<1
Port of Seattle 1995	10/11/1994	Area K Confirmation-11		Total petroleum hydrocarbons	49	2,000		<1
Geo Engineers 1990	2/7/1990	4	6	Total petroleum hydrocarbons	27	2,000		<1
Port of Seattle 1995	10/10/1994	Area K Confirmation-4		Total petroleum hydrocarbons	19	2,000		<1
Port of Seattle 1989	5/10/1989	4 (F south end)	Tank Bottom	Xylenes, total	4	9		<1
EcoChem 1997	1/7/1997	SS-7 Dup	Surface	Xylenes, total	0.09 D	9		<1
EcoChem 1997	1/7/1997	SS-7	Surface	Xylenes, total	0.07	9		<1
EcoChem 1997	1/7/1997	SS-12	Surface	Xylenes, total	0.01 J	9		<1
EcoChem 1997	1/7/1997	SS-21	Surface	Xylenes, total	0.005	9		<1
EcoChem 1997	1/7/1997	SS-22	Surface	Xylenes, total	0.005	9		<1
EcoChem 1997	1/7/1997	SS-4	Surface	Xylenes, total	0.003	9		<1
Olympus 1994	11/12/1993	TP-1		Xylenes, total	0.0013 J	9		<1
EcoChem 1997	1/7/1997	SS-10	Surface	Zinc	20,800 J	24,000	770	27
Erda Environmental 1996	12/1/1994	T #3N D		Zinc	1,600	24,000	38	42
Olympus 1994	11/24/1993	TP-9		Zinc	1,100	24,000	38	29
Erda Environmental 1996	12/1/1994	T #3S D		Zinc	990	24,000	38	26
Erda Environmental 1996	12/1/1994	T #2 C	C	Zinc	850	24,000	38	22
Erda Environmental 1996	12/1/1994	T #3 C	C	Zinc	600	24,000	38	16
Erda Environmental 1996	12/1/1994	T #3B D		Zinc	590	24,000	38	16
Olympus 1994	11/12/1993	TP-3		Zinc	500	24,000	38	13
Erda Environmental 1996	12/1/1994	T #6 C	C	Zinc	300	24,000	38	7.9
Olympus 1994	11/24/1993	TP-5		Zinc	280	24,000	38	7.4
EcoChem 1997	1/7/1997	SS-12	Surface	Zinc	268 J	24,000	770	<1
Olympus 1994	11/24/1993	TP-6		Zinc	180	24,000	38	4.7
EcoChem 1997	1/7/1997	SS-11	Surface	Zinc	179 J	24,000	770	<1
EcoChem 1997	1/7/1997	SS-9	Surface	Zinc	174 J	24,000	770	<1

Table F-5
Chemicals Detected in Soil Samples
Terminal 105

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
North Creek 1992	2/13/1992	202-0563		Zinc	170	24,000	38	4.5
EcoChem 1997	1/7/1997	SS-7	Surface	Zinc	168 J	24,000	770	<1
EcoChem 1997	1/7/1997	SS-13	Surface	Zinc	145 J	24,000	770	<1
North Creek 1992	2/13/1992	202-0564		Zinc	100	24,000	38	3
Erda Environmental 1996	12/1/1994	T #1 C	C	Zinc	90	24,000	38	2.4
Geo Engineers 1985	6/4/1985	1 (U-1, U-2)	C	Zinc	85.4	24,000	770	<1
Olympus 1994	11/24/1993	TP-4		Zinc	69	24,000	38	1.8
Olympus 1994	11/24/1993	TP-7		Zinc	51	24,000	38	1.3
Geo Engineers 1985	6/4/1985	2 (U-3, U-4)	C	Zinc	50.6	24,000	770	<1
Olympus 1994	11/24/1993	TP-8		Zinc	49	24,000	38	1.3
EcoChem 1997	1/7/1997	SS-6	Surface	Zinc	44.9 J	24,000	770	<1
Geo Engineers 1985	6/4/1985	4 (U-7, U-8, U-9)	C	Zinc	43.8	24,000	770	<1
Geo Engineers 1985	6/4/1985	3 (U-5, U-6)	C	Zinc	39.3	24,000	770	<1
Olympus 1994	11/11/1993	B3-7.5	7.5	Zinc	38	24,000	38	1.0
EcoChem 1997	1/7/1997	SS-8	Surface	Zinc	31.7 J	24,000	770	<1
Olympus 1994	11/12/1993	TP-1		Zinc	28	24,000	38	<1
North Creek 1992	2/13/1992	202-0565		Zinc	19	24,000	38	<1
Olympus 1994	11/11/1993	B2-13.5	13.5	Zinc	17	24,000	38	<1

ft bgs - Feet below ground surface
mg/kg - Milligrams per kilogram
MTCA - Model Toxics Control Act
CSL - Cleanup Screening Level from Washington Sediment Management Standards
C - Composite sample
D - Duplicate sample
E - The sample contained an oil componenet that partially eluted in the diesel range.
F - Results is from the analysis of a diluted sample.
G - Possible blank contamination
J - Estimated value

a - The lower of MTCA Method A or B cleanup levels was selected, from CLARC database.
b - Based on CSL. Where two screening levels are listed for a single chemical, the higher screening levels are for soil samples collected from the vadose zone and the lower screening levels are for soil samples collected from the saturated zone (SAIC 2006).
Depth to groundwater is tidally influenced at this property, and was observed between 3 and 7 ft bgs.
Table presents detected chemicals only.
Exceedance factors are the ratio of the detected concentration to the MTCA Cleanup Level or Soil-to-Sediment Screening Level, whichever is lower.
Chemicals and samples with exceedance factors greater than 1 are shaded light yellow.

Table F-6
Chemicals Detected in Groundwater Samples
Terminal 105

Source	Sample Date	Sample Location	Chemical	GW Conc'n (ug/L)	MTCA Cleanup Level[a] (ug/L)	GW-to-Sediment Screening Level[b] (ug/L)	Exceedance Factor
Olympus 1994	11/12/1993	OMW-1	2-Butanone	2.6 J			
Olympus 1994	11/12/1993	OMW-1	2-Methylnaphthalene	0.089 J	32		<1
Olympus 1994	11/12/1993	OMW-3	2-Methylnaphthalene	0.053 J	32		<1
Olympus 1994	11/12/1993	OMW-1	4-Chloro-3-methylphenol	0.65			
Harding Lawson 1983	3/3/1983	MW-1	Antimony	1.2	6.4		<1
Harding Lawson 1983	3/3/1983	MW-2	Antimony	0.8	6.4		<1
Harding Lawson 1983	3/3/1983	MW-3	Antimony	0.8	6.4		<1
Port of Seattle 1985a	1/1/1983	MW-1	Arsenic	20	0.0583	370	343
Port of Seattle 1985a	1/1/1983	MW-3	Arsenic	20	0.0583	370	343
Harding Lawson 1983	6/9/1983	MW-3	Arsenic	14	0.0583	370	240
Port of Seattle 1985a	5/1/1982	MW-3	Arsenic	14	0.0583	370	240
Harding Lawson 1983	9/16/1983	MW-3	Arsenic	13	0.0583	370	223
Port of Seattle 1985a	8/1/1982	MW-3	Arsenic	13	0.0583	370	223
Port of Seattle 1985a	1/1/1983	MW-2	Arsenic	12	0.0583	370	206
Harding Lawson 1983	6/9/1983	MW-2	Arsenic	10	0.0583	370	172
Port of Seattle 1985a	5/1/1982	MW-2	Arsenic	10	0.0583	370	172
EcoChem 1997	1/10/1997	OMW-4	Arsenic	9.9 T	0.0583	370	170
Harding Lawson 1983	9/16/1983	MW-1	Arsenic	9	0.0583	370	154
Harding Lawson 1983	9/16/1983	MW-2	Arsenic	9	0.0583	370	154
Port of Seattle 1985a	8/1/1982	MW-1	Arsenic	9.0	0.0583	370	154
Port of Seattle 1985a	8/1/1982	MW-2	Arsenic	9.0	0.0583	370	154
Harding Lawson 1983	6/9/1983	MW-1	Arsenic	6	0.0583	370	103
Port of Seattle 1985a	5/1/1982	MW-1	Arsenic	6.0	0.0583	370	103
Harding Lawson 1983	4/6/1983	MW-1	Arsenic	3	0.0583	370	51.5
Harding Lawson 1983	4/6/1983	MW-3	Arsenic	3	0.0583	370	51.5
Port of Seattle 1985a	3/1/1982	MW-1	Arsenic	3.0	0.0583	370	51.5
Port of Seattle 1985a	3/1/1982	MW-3	Arsenic	3.0	0.0583	370	51.5
Harding Lawson 1983	3/3/1983	MW-1	Arsenic	2.6	0.0583	370	44.6
Port of Seattle 1985a	2/1/1982	MW-1	Arsenic	2.6	0.0583	370	44.6
Harding Lawson 1983	4/6/1983	MW-2	Arsenic	2	0.0583	370	34.3
Port of Seattle 1985a	3/1/1982	MW-2	Arsenic	2.0	0.0583	370	34.3
Harding Lawson 1983	3/3/1983	MW-3	Arsenic	1.6	0.0583	370	27.4
Port of Seattle 1985a	2/1/1982	MW-3	Arsenic	1.6	0.0583	370	27.4
Olympus 1994	11/12/1993	OMW-2	Arsenic	0.028 T	0.0583	370	<1
Olympus 1994	11/12/1993	OMW-1	Arsenic	0.016 T	0.0583	370	<1

Table F-6
Chemicals Detected in Groundwater Samples
Terminal 105

Source	Sample Date	Sample Location	Chemical	GW Conc'n (ug/L)	MTCA Cleanup Level[a] (ug/L)	GW-to-Sediment Screening Level[b] (ug/L)	Exceedance Factor
Geo Engineers 1990	2/7/1990	MW-1	Benzene	0.6	0.8		<1
Olympus 1994	11/12/1993	OMW-4	Benzoic Acid	0.4 J	64,000	2,200	<1
Harding Lawson 1983	6/9/1983	MW-2	beta-BHC	2.3			
Harding Lawson 1983	6/9/1983	MW-1	beta-BHC	1.7			
Harding Lawson 1983	12/15/1982	MW-1	bis(2-Ethylhexyl)phthalate	125	6.25	6.8	20.0
Harding Lawson 1983	12/15/1982	MW-3	bis(2-Ethylhexyl)phthalate	16	6.25	6.8	2.6
Olympus 1994	11/12/1993	OMW-1	bis(2-Ethylhexyl)phthalate	1.6	6.25	6.8	<1
Olympus 1994	11/12/1993	OMW-3	bis(2-Ethylhexyl)phthalate	0.93	6.25	6.8	<1
Olympus 1994	11/12/1993	OMW-2	bis(2-Ethylhexyl)phthalate	0.63	6.25	6.8	<1
Olympus 1994	11/12/1993	OMW-4	bis(2-Ethylhexyl)phthalate	0.33	6.25	6.8	<1
Olympus 1994	11/12/1993	OMW-1	Butylbenzylphthalate	0.16	46.1	6.8	<1
Olympus 1994	11/12/1993	OMW-3	Butylbenzylphthalate	0.14	46.1	6.8	<1
Olympus 1994	11/12/1993	OMW-2	Butylbenzylphthalate	0.087 J	46.1	6.8	<1
Olympus 1994	11/12/1993	OMW-4	Butylbenzylphthalate	0.068 J	46.1	6.8	<1
Harding Lawson 1983	3/3/1983	MW-2	Cadmium	10	5	3.4	2.9
Port of Seattle 1985a	2/1/1982	MW-2	Cadmium	10	5	3.4	2.9
Harding Lawson 1983	12/15/1982	MW-3	Cadmium	4.3	5	3.4	1.3
Port of Seattle 1985a	Pre 1982	MW-3	Cadmium	4.3	5	3.4	1.3
Harding Lawson 1983	3/3/1983	MW-3	Cadmium	4	5	3.4	1.2
Port of Seattle 1985a	2/1/1982	MW-3	Cadmium	4.0	5	3.4	1.2
Harding Lawson 1983	4/6/1983	MW-2	Cadmium	3.2	5	3.4	<1
Port of Seattle 1985a	3/1/1982	MW-2	Cadmium	3.2	5	3.4	<1
Harding Lawson 1983	9/16/1983	MW-2	Cadmium	3	5	3.4	<1
Port of Seattle 1985a	8/1/1982	MW-2	Cadmium	3.0	5	3.4	<1
Port of Seattle 1985a	1/1/1983	MW-1	Chromium	23	50	320	<1
Harding Lawson 1983	12/15/1982	MW-3	Chromium	21	50	320	<1
Port of Seattle 1985a	Pre 1982	MW-3	Chromium	21	50	320	<1
Harding Lawson 1983	12/15/1982	MW-1	Chromium	9	50	320	<1
Port of Seattle 1985a	Pre 1982	MW-1	Chromium	9.0	50	320	<1
Harding Lawson 1983	3/3/1983	MW-1	Chromium	5	50	320	<1
Port of Seattle 1985a	2/1/1982	MW-1	Chromium	5.0	50	320	<1
Harding Lawson 1983	6/9/1983	MW-2	Chromium	3	50	320	<1
Harding Lawson 1983	6/9/1983	MW-3	Chromium	3	50	320	<1
Port of Seattle 1985a	5/1/1982	MW-2	Chromium	3.0	50	320	<1
Port of Seattle 1985a	1/1/1983	MW-2	Chromium	3.0	50	320	<1

Table F-6
Chemicals Detected in Groundwater Samples
Terminal 105

Source	Sample Date	Sample Location	Chemical	GW Conc'n (ug/L)	MTCA Cleanup Level[a] (ug/L)	GW-to-Sediment Screening Level[b] (ug/L)	Exceedance Factor
Port of Seattle 1985a	5/1/1982	MW-3	Chromium	3.0	50	320	<1
Harding Lawson 1983	6/9/1983	MW-1	Chromium	2	50	320	<1
Port of Seattle 1985a	5/1/1982	MW-1	Chromium	2.0	50	320	<1
Port of Seattle 1985a	1/1/1983	MW-3	Chromium	2.0	50	320	<1
Harding Lawson 1983	3/3/1983	MW-2	Chromium	1	50	320	<1
Harding Lawson 1983	3/3/1983	MW-3	Chromium	1	50	320	<1
Port of Seattle 1985a	2/1/1982	MW-2	Chromium	1.0	50	320	<1
Port of Seattle 1985a	2/1/1982	MW-3	Chromium	1.0	50	320	<1
Harding Lawson 1983	3/3/1983	MW-3	Copper	90	640	120	<1
Port of Seattle 1985a	2/1/1982	MW-3	Copper	90	640	120	<1
Harding Lawson 1983	3/3/1983	MW-2	Copper	70	640	120	<1
Port of Seattle 1985a	2/1/1982	MW-2	Copper	70	640	120	<1
Harding Lawson 1983	3/3/1983	MW-1	Copper	60	640	120	<1
Harding Lawson 1983	12/15/1982	MW-3	Copper	60	640	120	<1
Port of Seattle 1985a	2/1/1982	MW-1	Copper	60	640	120	<1
Port of Seattle 1985a	Pre 1982	MW-3	Copper	60	640	120	<1
Harding Lawson 1983	12/15/1982	MW-1	Copper	50	640	120	<1
Port of Seattle 1985a	Pre 1982	MW-1	Copper	50	640	120	<1
Harding Lawson 1983	12/15/1982	MW-2	Copper	40	640	120	<1
Port of Seattle 1985a	Pre 1982	MW-2	Copper	40	640	120	<1
Harding Lawson 1983	6/9/1983	MW-3	Copper	22	640	120	<1
Harding Lawson 1983	9/16/1983	MW-3	Copper	22	640	120	<1
Port of Seattle 1985a	5/1/1982	MW-3	Copper	22	640	120	<1
Port of Seattle 1985a	8/1/1982	MW-3	Copper	22	640	120	<1
Harding Lawson 1983	4/6/1983	MW-1	Copper	20	640	120	<1
Port of Seattle 1985a	3/1/1982	MW-1	Copper	20	640	120	<1
Harding Lawson 1983	6/9/1983	MW-2	Copper	16	640	120	<1
Port of Seattle 1985a	5/1/1982	MW-2	Copper	16	640	120	<1
Harding Lawson 1983	4/6/1983	MW-3	Copper	15	640	120	<1
Port of Seattle 1985a	3/1/1982	MW-3	Copper	15	640	120	<1
EcoChem 1997	1/10/1997	MW-2	Copper	14.8 T	640	120	<1
Harding Lawson 1983	6/9/1983	MW-1	Copper	14	640	120	<1
Port of Seattle 1985a	5/1/1982	MW-1	Copper	14	640	120	<1
EcoChem 1997	1/10/1997	MW-2	Copper	13.7 Ds	640	120	<1
Harding Lawson 1983	9/16/1983	MW-1	Copper	13	640	120	<1

Table F-6
Chemicals Detected in Groundwater Samples
Terminal 105

Source	Sample Date	Sample Location	Chemical	GW Conc'n (ug/L)	MTCA Cleanup Level[a] (ug/L)	GW-to-Sediment Screening Level[b] (ug/L)	Exceedance Factor
Harding Lawson 1983	9/16/1983	MW-2	Copper	13	640	120	<1
Port of Seattle 1985a	8/1/1982	MW-1	Copper	13	640	120	<1
Port of Seattle 1985a	8/1/1982	MW-2	Copper	13	640	120	<1
Harding Lawson 1983	4/6/1983	MW-2	Copper	12	640	120	<1
Port of Seattle 1985a	3/1/1982	MW-2	Copper	12	640	120	<1
EcoChem 1997	1/10/1997	MW-3	Copper	11.1 T	640	120	<1
Port of Seattle 1985a	1/1/1983	MW-2	Copper	10	640	120	<1
Port of Seattle 1985a	1/1/1983	MW-3	Copper	9.0	640	120	<1
Port of Seattle 1985a	1/1/1983	MW-1	Copper	8.0	640	120	<1
Harding Lawson 1983	6/9/1983	MW-3	Cyanide	11			
Harding Lawson 1983	4/6/1983	MW-3	Cyanide	8			
Port of Seattle 1985a	5/1/1982	MW-3	Cyanide, total	11			
Harding Lawson 1983	6/9/1983	MW-2	Cyanide, total	10			
Port of Seattle 1985a	5/1/1982	MW-2	Cyanide, total	10			
Port of Seattle 1985a	3/1/1982	MW-3	Cyanide, total	8.0			
Harding Lawson 1983	4/6/1983	MW-2	Cyanide, total	7			
Port of Seattle 1985a	3/1/1982	MW-1	Cyanide, total	7.0			
Port of Seattle 1985a	3/1/1982	MW-2	Cyanide, total	7.0			
Port of Seattle 1985a	5/1/1982	MW-1	Cyanide, total	6.0			
Harding Lawson 1983	12/15/1982	MW-2	Cyanide, total	5			
Port of Seattle 1985a	Pre 1982	MW-2	Cyanide, total	5.0			
Harding Lawson 1983	6/9/1983	MW-3	delta-BHC	1.4			
Harding Lawson 1983	6/9/1983	MW-1	Dieldrin	1.6	0.8		2.0
Olympus 1994	11/12/1993	OMW-1	Diethylphthalate	0.16	12,800	870	<1
Olympus 1994	11/12/1993	OMW-3	Diethylphthalate	0.11	12,800	870	<1
Olympus 1994	11/12/1993	OMW-4	Diethylphthalate	0.079 J	12,800	870	<1
Olympus 1994	11/12/1993	OMW-3	Dimethylphthalate	0.033 J		140	<1
Olympus 1994	11/12/1993	OMW-1	Di-n-butylphthalate	0.71	1,600	1,200	<1
Olympus 1994	11/12/1993	OMW-3	Di-n-butylphthalate	0.62	1,600	1,200	<1
Olympus 1994	11/12/1993	OMW-2	Di-n-butylphthalate	0.34	1,600	1,200	<1
Olympus 1994	11/12/1993	OMW-4	Di-n-butylphthalate	0.22	1,600	1,200	<1
Olympus 1994	11/12/1993	OMW-3	Di-n-octylphthalate	0.13		23	<1
Olympus 1994	11/12/1993	OMW-1	Di-n-octylphthalate	0.098 J		23	<1
Olympus 1994	11/12/1993	OMW-2	Di-n-octylphthalate	0.089 J		23	<1
Harding Lawson 1983	3/3/1983	MW-1	Lead	130	15	13	10

Table F-6
Chemicals Detected in Groundwater Samples
Terminal 105

Source	Sample Date	Sample Location	Chemical	GW Conc'n (ug/L)	MTCA Cleanup Level[a] (ug/L)	GW-to-Sediment Screening Level[b] (ug/L)	Exceedance Factor
Port of Seattle 1985a	2/1/1982	MW-1	Lead	130	15	13	10
Harding Lawson 1983	4/6/1983	MW-1	Lead	28	15	13	2.2
Harding Lawson 1983	3/3/1983	MW-2	Lead	28	15	13	2.2
Port of Seattle 1985a	3/1/1982	MW-1	Lead	28	15	13	2.2
Port of Seattle 1985a	2/1/1982	MW-2	Lead	28	15	13	2.2
Harding Lawson 1983	12/15/1982	MW-1	Lead	20	15	13	1.5
Port of Seattle 1985a	Pre 1982	MW-1	Lead	20	15	13	1.5
Harding Lawson 1983	3/3/1983	MW-3	Lead	10	15	13	<1
Port of Seattle 1985a	2/1/1982	MW-3	Lead	10	15	13	<1
Harding Lawson 1983	12/15/1982	MW-3	Lead	8	15	13	<1
Port of Seattle 1985a	Pre 1982	MW-3	Lead	8.0	15	13	<1
Harding Lawson 1983	12/15/1982	MW-2	Lead	5	15	13	<1
Port of Seattle 1985a	Pre 1982	MW-2	Lead	5.0	15	13	<1
Harding Lawson 1983	4/6/1983	MW-3	Lead	4	15	13	<1
Port of Seattle 1985a	3/1/1982	MW-3	Lead	4.0	15	13	<1
Harding Lawson 1983	4/6/1983	MW-2	Lead	3	15	13	<1
Port of Seattle 1985a	3/1/1982	MW-2	Lead	3.0	15	13	<1
Harding Lawson 1983	3/3/1983	MW-1	Mercury	0.5	2	0.0074	68
Port of Seattle 1985a	2/1/1982	MW-1	Mercury	0.5	2	0.0074	68
Harding Lawson 1983	3/3/1983	MW-3	Mercury	0.2	2	0.0074	27
Port of Seattle 1985a	2/1/1982	MW-3	Mercury	0.2	2	0.0074	27
Harding Lawson 1983	3/3/1983	MW-1	Methylene chloride	25	5		5.0
Harding Lawson 1983	3/3/1983	MW-2	Methylene chloride	22	5		4.4
Harding Lawson 1983	3/3/1983	MW-3	Methylene chloride	21	5		4.2
Harding Lawson 1983	4/6/1983	MW-2	Methylene chloride	11	5		2.2
Harding Lawson 1983	6/9/1983	MW-2	Methylene chloride	7	5		1.4
Harding Lawson 1983	6/9/1983	MW-1	Methylene chloride	6	5		1.2
Harding Lawson 1983	6/9/1983	MW-3	Methylene chloride	6	5		1.2
Olympus 1994	11/12/1993	OMW-1	Methylene chloride	3.1 J	5		<1
Olympus 1994	11/12/1993	OMW-3	Naphthalene	0.034 J	160	92	<1
Geo Engineers 1990	2/7/1990	1 B1	Nickel	80			
Harding Lawson 1983	3/3/1983	MW-2	Nickel	51			
Port of Seattle 1985a	2/1/1982	MW-2	Nickel	51			
Geo Engineers 1990	2/7/1990	3 MW By Others	Nickel	40			
Harding Lawson 1983	3/3/1983	MW-3	Nickel	35			

Table F-6
Chemicals Detected in Groundwater Samples
Terminal 105

Source	Sample Date	Sample Location	Chemical	GW Conc'n (ug/L)	MTCA Cleanup Level[a] (ug/L)	GW-to-Sediment Screening Level[b] (ug/L)	Exceedance Factor
Port of Seattle 1985a	2/1/1982	MW-3	Nickel	35			
Harding Lawson 1983	12/15/1982	MW-3	Nickel	33			
Port of Seattle 1985a	Pre 1982	MW-3	Nickel	33			
Harding Lawson 1983	12/15/1982	MW-1	Nickel	31			
Port of Seattle 1985a	Pre 1982	MW-1	Nickel	31			
Port of Seattle 1985a	3/1/1982	MW-2	Nickel	20			
Port of Seattle 1985a	1/1/1983	MW-1	Nickel	18			
Harding Lawson 1983	12/15/1982	MW-2	Nickel	14			
Harding Lawson 1983	6/9/1983	MW-2	Nickel	14			
Harding Lawson 1983	9/16/1983	MW-2	Nickel	14			
Port of Seattle 1985a	5/1/1982	MW-2	Nickel	14			
Port of Seattle 1985a	8/1/1982	MW-2	Nickel	14			
Port of Seattle 1985a	Pre 1982	MW-2	Nickel	14			
Port of Seattle 1985a	1/1/1983	MW-2	Nickel	13			
Harding Lawson 1983	6/9/1983	MW-3	Nickel	12			
Port of Seattle 1985a	5/1/1982	MW-3	Nickel	12			
Port of Seattle 1985a	1/1/1983	MW-3	Nickel	11			
Harding Lawson 1983	3/3/1983	MW-1	Nickel	10			
Harding Lawson 1983	4/6/1983	MW-2	Nickel	10			
Port of Seattle 1985a	2/1/1982	MW-1	Nickel	10			
Harding Lawson 1983	6/9/1983	MW-1	Nickel	6			
Port of Seattle 1985a	5/1/1982	MW-1	Nickel	6.0			
Harding Lawson 1983	4/6/1983	MW-1	Nickel	5			
Port of Seattle 1985a	3/1/1982	MW-1	Nickel	5.0			
Olympus 1994	11/12/1993	OMW-1	Phenanthrene	0.059 J		23	<1
Port of Seattle 1985a	8/1/1982	MW-3	Phenol	27	2,400	220	<1
Harding Lawson 1983	9/16/1983	MW-3	Phenol	27	2,400	220	<1
Port of Seattle 1985a	8/1/1982	MW-2	Phenol	24	2,400	220	<1
Harding Lawson 1983	9/16/1983	MW-2	Phenol	24	2,400	220	<1
Port of Seattle 1985a	3/1/1982	MW-2	Phenol	13	2,400	220	<1
Harding Lawson 1983	4/6/1983	MW-2	Phenol	13	2,400	220	<1
Port of Seattle 1985a	2/1/1982	MW-3	Phenol	10	2,400	220	<1
Harding Lawson 1983	3/3/1983	MW-3	Phenol	10	2,400	220	<1
Port of Seattle 1985a	5/1/1982	MW-2	Phenol	9.0	2,400	220	<1
Harding Lawson 1983	6/9/1983	MW-2	Phenol	9	2,400	220	<1

Table F-6
Chemicals Detected in Groundwater Samples
Terminal 105

Source	Sample Date	Sample Location	Chemical	GW Conc'n (ug/L)	MTCA Cleanup Level[a] (ug/L)	GW-to-Sediment Screening Level[b] (ug/L)	Exceedance Factor
Port of Seattle 1985a	3/1/1982	MW-3	Phenol	7.0	2,400	220	<1
Port of Seattle 1985a	5/1/1982	MW-3	Phenol	7.0	2,400	220	<1
Harding Lawson 1983	4/6/1983	MW-3	Phenol	7	2,400	220	<1
Harding Lawson 1983	6/9/1983	MW-3	Phenol	7	2,400	220	<1
Olympus 1994	11/12/1993	OMW-2	Phenol	0.11	2,400	220	<1
Olympus 1994	11/12/1993	OMW-1	Pyrene	0.073 J	480	20	<1
Harding Lawson 1983	9/16/1983	MW-2	Selenium	10	80		<1
Harding Lawson 1983	9/16/1983	MW-3	Selenium	7	80		<1
Harding Lawson 1983	3/3/1983	MW-3	Silver	0.6	80	1.5	<1
Port of Seattle 1985a	2/1/1982	MW-1	Sulfide	600			
Harding Lawson 1983	3/3/1983	MW-1	Sulfide	600			
Port of Seattle 1985a	2/1/1982	MW-3	Sulfide	300			
Harding Lawson 1983	3/3/1983	MW-3	Sulfide	300			
Geo Engineers 1990	2/7/1990	2 B2	Toluene	5.5	640		<1
Harding Lawson 1983	12/15/1982	MW-3	Zinc	500	4,800	76	6.6
Port of Seattle 1985a	Pre 1982	MW-3	Zinc	500	4,800	76	6.6
Harding Lawson 1983	3/3/1983	MW-3	Zinc	260	4,800	76	3.4
Port of Seattle 1985a	2/1/1982	MW-3	Zinc	260	4,800	76	3.4
Harding Lawson 1983	3/3/1983	MW-2	Zinc	160	4,800	76	2.1
Port of Seattle 1985a	2/1/1982	MW-2	Zinc	160	4,800	76	2.1
Harding Lawson 1983	9/16/1983	MW-3	Zinc	110	4,800	76	1.4
Port of Seattle 1985a	8/1/1982	MW-3	Zinc	110	4,800	76	1.4
Harding Lawson 1983	6/9/1983	MW-3	Zinc	100	4,800	76	1.3
Port of Seattle 1985a	5/1/1982	MW-3	Zinc	100	4,800	76	1.3
Harding Lawson 1983	4/6/1983	MW-3	Zinc	95	4,800	76	1.3
Port of Seattle 1985a	3/1/1982	MW-3	Zinc	95	4,800	76	1.3
Harding Lawson 1983	4/6/1983	MW-2	Zinc	78	4,800	76	1.0
Port of Seattle 1985a	3/1/1982	MW-2	Zinc	78	4,800	76	1.0
Harding Lawson 1983	3/3/1983	MW-1	Zinc	72	4,800	76	<1
Port of Seattle 1985a	2/1/1982	MW-1	Zinc	72	4,800	76	<1
Port of Seattle 1985a	1/1/1983	MW-2	Zinc	71	4,800	76	<1
Harding Lawson 1983	9/16/1983	MW-2	Zinc	50	4,800	76	<1
Port of Seattle 1985a	8/1/1982	MW-2	Zinc	50	4,800	76	<1
EcoChem 1997	1/10/1997	OMW-4	Zinc	48.4 T	4,800	76	<1
Port of Seattle 1985a	1/1/1983	MW-3	Zinc	47	4,800	76	<1
Geo Engineers 1990	2/7/1990	1 B1	Zinc	40	4,800	76	<1

Table F-6
Chemicals Detected in Groundwater Samples
Terminal 105

Source	Sample Date	Sample Location	Chemical	GW Conc'n (ug/L)	MTCA Cleanup Level[a] (ug/L)	GW-to-Sediment Screening Level[b] (ug/L)	Exceedance Factor
Harding Lawson 1983	4/6/1983	MW-1	Zinc	33	4,800	76	<1
Port of Seattle 1985a	3/1/1982	MW-1	Zinc	33	4,800	76	<1
Port of Seattle 1985a	1/1/1983	MW-1	Zinc	27	4,800	76	<1
Harding Lawson 1983	6/9/1983	MW-2	Zinc	25	4,800	76	<1
Port of Seattle 1985a	5/1/1982	MW-2	Zinc	25	4,800	76	<1
Harding Lawson 1983	12/15/1982	MW-1	Zinc	20	4,800	76	<1
Harding Lawson 1983	12/15/1982	MW-2	Zinc	20	4,800	76	<1
Port of Seattle 1985a	Pre 1982	MW-1	Zinc	20	4,800	76	<1
Port of Seattle 1985a	Pre 1982	MW-2	Zinc	20	4,800	76	<1
EcoChem 1997	1/10/1997	OMW-4	Zinc	16.6 Ds	4,800	76	<1
EcoChem 1997	1/10/1997	MW-2	Zinc	15.2 T	4,800	76	<1
EcoChem 1997	1/10/1997	MW-3	Zinc	15.1 T	4,800	76	<1
EcoChem 1997	1/10/1997	MW-2	Zinc	14.3 Ds	4,800	76	<1
Harding Lawson 1983	6/9/1983	MW-1	Zinc	13	4,800	76	<1
Port of Seattle 1985a	5/1/1982	MW-1	Zinc	13	4,800	76	<1
Harding Lawson 1983	9/16/1983	MW-1	Zinc	10	4,800	76	<1
Port of Seattle 1985a	8/1/1982	MW-1	Zinc	10	4,800	76	<1
Olympus 1994	11/12/1993	OMW-3	Zinc	0.15	4,800	76	<1
Olympus 1994	11/12/1993	OMW-2	Zinc	0.02	4,800	76	<1

GW - Groundwater
ug/L - Micrograms per liter
MTCA - Model Toxics Control Act
CSL - Cleanup Screening Level from Washington Sediment Management Standards

Ds - Dissolved metal
J - Estimated value
T - Total metal

a - The lower of MTCA Method A or B cleanup levels was selected, from CLARC database.
b - Based on CSL (SAIC 2006).
Table presents detected chemicals only.
Exceedance factors are the ratio of the detected concentration to the MTCA Cleanup Level or Groundwater-to-Sediment Screening Value, whichever is lower.
Chemicals and samples with exceedance factors greater than 1 are shaded light yellow.

Table F-7
Chemicals Detected in Stormwater Samples
Terminal 105

Source	Sample Date	Sample Location	Chemical	Stormwater Conc'n (ug/L)	Marine Chronic WQS[a] (ug/L)	Marine Acute WQS[b] (ug/L)	Chronic WQS Exceedance Factor	GW-to-Sediment Screening Level[c] (ug/L)	Exceedance Factor
Olympus 1994	11/12/1993	CB-1	Acetone	27					
Olympus 1994	11/12/1993	CB-2	Acetone	6.3 J					
Olympus 1994	11/12/1993	CB-2	Cadmium	6	8.8	40	<1	3.4	1.8
Olympus 1994	11/12/1993	CB-2	Chromium	50				320	<1
Olympus 1994	11/12/1993	CB-1	Chromium	20				320	<1
Olympus 1994	11/12/1993	CB-2	Copper	110	2	2	46	120	<1
Olympus 1994	11/12/1993	CB-1	Copper	63	2.4	2.4	26	120	<1
Olympus 1994	11/12/1993	CB-2	Heavy oil-range hydrocarbons	8.6					
Olympus 1994	11/12/1993	CB-1	Heavy oil-range hydrocarbons	3					
Olympus 1994	11/12/1993	CB-1	Lead	200	8.1	210	25	13	15
Olympus 1994	11/12/1993	CB-2	Lead	190	8	210	23	13	15
Olympus 1994	11/12/1993	CB-3	Lead	32	8	210	4.0	13	2.5
Olympus 1994	11/12/1993	CB-1	Methyl isobutyl ketone	7.8 J					
Olympus 1994	11/12/1993	CB-2	Methyl isobutyl ketone	4.1 J					
Olympus 1994	11/12/1993	CB-1	Methylene chloride	3.9 J					
Olympus 1994	11/12/1993	CB-2	Zinc	1,000	81	90	12	76	13
Olympus 1994	11/12/1993	CB-1	Zinc	480	81	90	5.9	76	6.3
Olympus 1994	11/12/1993	CB-3	Zinc	50	81	90	<1	76	<1

ug/L - Microgram per liter
WQS - Water Quality Standards
GW - Groundwater
CSL - Cleanup Screening Level from Washington Sediment Management Standards

a - The lower of the ARARS for Surface Water Aquatic Life (Marine/Chronic) were selected from CLARC database
b - The lower of the ARARS for Surface Water Aquatic Life (Marine/Acute) were selected from CLARC database
c - Based on CSL (SAIC 2006).
Table presents detected chemicals only.
Exceedance factors are the ratio of the detected concentrations to the minimum screening level availbe in the WA State CLARC database, exceedance factors are shown only if they are greater than 1.
Chemicals and samples with exceedance factors greater than 1 are shaded light yellow.

Table F-8
Chemicals Detected in Storm Drain Solids Samples
Terminal 105

Source	Sample Date	Sample Location	Chemical	Storm Drain Solids Conc'n (mg/kg DW)	SQS/LAET (mg/kg DW)	CSL/2LAET (mg/kg DW)	Exceedance Factor
Olympus 1994	11/12/1993	CB-2	2-Butanone	0.0092 J			
Olympus 1994	11/12/1993	CB-2	Acetone	0.039 J			
Olympus 1994	11/12/1993	CB-3	Acetone	0.019 J			
Olympus 1994	11/12/1993	CB-1	Antimony	44 JT			
Olympus 1994	11/12/1993	CB-2	Antimony	18 JT			
Olympus 1994	11/12/1993	CB-1	Arsenic	98 T	57	93	1.7
Olympus 1994	11/12/1993	CB-2	Arsenic	40 T	57	93	<1
Olympus 1994	11/12/1993	CB-2	Benzene	0.0054 J			
Olympus 1994	11/12/1993	CB-1	Cadmium	10 T	5.1	6.7	2.0
Olympus 1994	11/12/1993	CB-2	Cadmium	9.8 T	5.1	6.7	1.9
Olympus 1994	11/12/1993	CB-3	Cadmium	4.4 T	5.1	6.7	<1
Olympus 1994	11/12/1993	CB-3	Carbon disulfide	0.0052 J			
Olympus 1994	11/12/1993	CB-2	Chromium	89 T	260	270	<1
Olympus 1994	11/12/1993	CB-1	Chromium	79 T	260	270	<1
Olympus 1994	11/12/1993	CB-3	Chromium	21 T	260	270	<1
Olympus 1994	11/12/1993	CB-1	Copper	330 T	390	390	<1
Olympus 1994	11/12/1993	CB-2	Copper	210 T	390	390	<1
Olympus 1994	11/12/1993	CB-3	Copper	47 T	390	390	<1
Olympus 1994	11/12/1993	CB-1	cPAHs, total	0.45	1.6	3	<1
Olympus 1994	11/12/1993	CB-2	Ethylbenzene	0.012			
Olympus 1994	11/12/1993	CB-2	Fluoranthene	1.0 J	1.7	2.5	<1
Olympus 1994	11/12/1993	CB-3	Fluoranthene	0.19 J	1.7	2.5	<1
Olympus 1994	11/12/1993	CB-1	Heavy oil-range hydrocarbons	17,000	2,000		8.5
Olympus 1994	11/12/1993	CB-2	Heavy oil-range hydrocarbons	11,000	2,000		5.5
Olympus 1994	11/12/1993	CB-3	Heavy oil-range hydrocarbons	150			
Olympus 1994	11/12/1993	CB-1	Indeno(1,2,3-cd)pyrene	0.45 J	0.6	0.69	<1
Olympus 1994	11/12/1993	CB-2	Lead	490 T	450	530	1.1
Olympus 1994	11/12/1993	CB-1	Lead	440 T	450	530	<1
Olympus 1994	11/12/1993	CB-3	Lead	71 T	450	530	<1
Olympus 1994	11/12/1993	CB-1	Mercury	0.34 T	0.41	0.59	<1
Olympus 1994	11/12/1993	CB-2	Mercury	0.22 T	0.41	0.59	<1
Olympus 1994	11/12/1993	CB-3	Mercury	0.16 T	0.41	0.59	<1
Olympus 1994	11/12/1993	CB-3	Methylene chloride	0.0092			
Olympus 1994	11/12/1993	CB-1	Methylene chloride	0.0035 J			
Olympus 1994	11/12/1993	CB-2	Methylene chloride	0.002 J			

Table F-8
Chemicals Detected in Storm Drain Solids Samples
Terminal 105

Source	Sample Date	Sample Location	Chemical	Storm Drain Solids Conc'n (mg/kg DW)	SQS/LAET (mg/kg DW)	CSL/2LAET (mg/kg DW)	Exceedance Factor
Olympus 1994	11/12/1993	CB-1	Nickel	150 T			
Olympus 1994	11/12/1993	CB-2	Nickel	60 T			
Olympus 1994	11/12/1993	CB-3	Nickel	29 T			
Olympus 1994	11/12/1993	CB-2	Phenanthrene	0.73 J	1.5	5.4	<1
Olympus 1994	11/12/1993	CB-1	Pyrene	0.45 J	2.6	3.3	<1
Olympus 1994	11/12/1993	CB-2	Pyrene	0.45 J	2.6	3.3	<1
Olympus 1994	11/12/1993	CB-3	Pyrene	0.26 J	2.6	3.3	<1
Olympus 1994	11/12/1993	CB-2	Silver	1.8 T	6.1	6.1	<1
Olympus 1994	11/12/1993	CB-2	Toluene	0.022			
Olympus 1994	11/12/1993	CB-2	Xylenes, total	0.027			
Olympus 1994	11/12/1993	CB-1	Zinc	3,400 T	410	960	8.3
Olympus 1994	11/12/1993	CB-2	Zinc	1,500 T	410	960	3.7
Olympus 1994	11/12/1993	CB-3	Zinc	220 T	410	960	<1

mg/kg - Milligrams per kilogram
DW - Dry weight
SQS - SMS Sediment Quality Standard
CSL - SMS Cleanup Screening Level
LAET - Lowest Apparent Effects Threshold
2LAET - Second LAET
J - Estimated value
T - Total metals

Table presents detected chemicals only.
Organic chemicals were not normalized for organic carbon content during testing and these chemicals were compared with the LAET and 2LAET instead of the SQS and CSL.
Exceedance factors are the ratio of the detected concentrations to the SQS or CSL, exceedance factors are shown only if they are greater than 1.
Chemicals and samples with exceedance factors greater than 1 are shaded light yellow.

Table F-9
Chemicals Detected in Sediment Samples
Terminal 105

Source	Sample Date	Sample Location	Chemical	Sediment Conc'n (mg/kg DW)	SQS/LAET (mg/kg DW)	CSL/2LAET (mg/kg DW)	Exceedance Factor
Olympus 1994	11/23/1993	SS1	2-Butanone	0.024 J			
Olympus 1994	11/17/1993	SS2	2-Methylnaphthalene	0.015 J	0.67	1.4	<1
Olympus 1994	11/17/1993	SS2	4-Chloro-3-methylphenol	100 J			
Olympus 1994	11/17/1993	SS3	4-Chloro-3-methylphenol	1.049			
Olympus 1994	11/23/1993	SS1	Acenaphthene	0.17 J	0.5	7.3	<1
Olympus 1994	11/17/1993	SS3	Acenaphthylene	0.024 J	1.3	1.3	<1
Olympus 1994	11/17/1993	SS2	Acenaphthylene	0.02 J	1.3	1.3	<1
Olympus 1994	11/23/1993	SS1	Acetone	0.14			
Olympus 1994	11/17/1993	SS2	Acetone	0.0031 J			
Olympus 1994	11/23/1993	SS1	Anthracene	0.5 J	0.96	4.4	<1
Olympus 1994	11/17/1993	SS2	Anthracene	0.16 J	0.96	4.4	<1
Olympus 1994	11/17/1993	SS3	Anthracene	0.047 J	0.96	4.4	<1
Olympus 1994	11/23/1993	SS1	Antimony	10 T			
Olympus 1994	11/23/1993	SS1	Arsenic	38 T	57	93	<1
Olympus 1994	11/17/1993	SS2	Arsenic	17 T	57	93	<1
Olympus 1994	11/23/1993	SS1	Benzo(a)anthracene	0.95	1.3	1.6	<1
Olympus 1994	11/17/1993	SS2	Benzo(a)anthracene	0.2 J	1.3	1.6	<1
Olympus 1994	11/17/1993	SS3	Benzo(a)anthracene	0.049 J	1.3	1.6	<1
Olympus 1994	11/23/1993	SS1	Benzo(a)pyrene	0.7 J	1.6	3	<1
Olympus 1994	11/17/1993	SS2	Benzo(a)pyrene	0.21	1.6	3	<1
Olympus 1994	11/17/1993	SS3	Benzo(a)pyrene	0.058 J	1.6	3	<1
Olympus 1994	11/23/1993	SS1	Benzo(b)fluoranthene	1.48	3.2	3.2	<1
Olympus 1994	11/17/1993	SS2	Benzo(b)fluoranthene	0.25	3.2	3.2	<1
Olympus 1994	11/17/1993	SS3	Benzo(b)fluoranthene	0.154 J	3.2	3.2	<1
Olympus 1994	11/17/1993	SS2	Benzo(g,h,i)perylene	0.096 J	0.67	0.72	<1
Olympus 1994	11/17/1993	SS3	Benzo(g,h,i)perylene	0.032 J	0.67	0.72	<1
Olympus 1994	11/23/1993	SS1	Benzo(k)fluoranthene	0.42 J	3.2	3.2	<1
Olympus 1994	11/17/1993	SS2	Benzyl alcohol	0.073 J			
Olympus 1994	11/23/1993	SS1	bis(2-Ethylhexyl)phthalate	1 J	1.3	1.9	<1
Olympus 1994	11/23/1993	SS1	Butylbenzylphthalate	0.15 J	0.063	0.9	2.4
Olympus 1994	11/23/1993	SS1	Cadmium	4.8 T	5.1	6.7	<1
Olympus 1994	11/17/1993	SS2	Cadmium	1.6 T	5.1	6.7	<1
Olympus 1994	11/17/1993	SS3	Cadmium	0.98 T	5.1	6.7	<1
Olympus 1994	11/23/1993	SS1	Chromium	45 T	260	270	<1
Olympus 1994	11/17/1993	SS2	Chromium	23 T	260	270	<1

Table F-9
Chemicals Detected in Sediment Samples
Terminal 105

Source	Sample Date	Sample Location	Chemical	Sediment Conc'n (mg/kg DW)	SQS/LAET (mg/kg DW)	CSL/2LAET (mg/kg DW)	Exceedance Factor
Olympus 1994	11/17/1993	SS3	Chromium	5.3 T	260	270	<1
Olympus 1994	11/23/1993	SS1	Chrysene	1.3	1.4	2.8	<1
Olympus 1994	11/17/1993	SS2	Chrysene	0.28	1.4	2.8	<1
Olympus 1994	11/17/1993	SS3	Chrysene	0.066 J	1.4	2.8	<1
Olympus 1994	11/23/1993	SS1	Copper	280 T	390	390	<1
Olympus 1994	11/17/1993	SS2	Copper	29 T	390	390	<1
Olympus 1994	11/17/1993	SS3	Copper	14 T	390	390	<1
Olympus 1994	11/23/1993	SS1	Diethylphthalate	0.1 J	0.2	1.2	<1
Olympus 1994	11/23/1993	SS1	Di-n-butylphthalate	2.6 J	1.4	5.1	1.9
Olympus 1994	11/23/1993	SS1	Ethylbenzene	0.0027 J			
Olympus 1994	11/23/1993	SS1	Fluoranthene	3.7	1.7	2.5	2.2
Olympus 1994	11/17/1993	SS2	Fluoranthene	1.5	1.7	2.5	<1
Olympus 1994	11/17/1993	SS3	Fluoranthene	0.13 J	1.7	2.5	<1
Olympus 1994	11/23/1993	SS1	Fluorene	0.15 J	0.54	1	<1
Olympus 1994	11/17/1993	SS2	Fluorene	0.062 J	0.54	1	<1
Olympus 1994	11/17/1993	SS2	Heavy oil-range hydrocarbons	570			
Olympus 1994	11/23/1993	SS1	Heavy oil-range hydrocarbons	320			
Olympus 1994	11/17/1993	SS3	Heavy oil-range hydrocarbons	120			
Olympus 1994	11/17/1993	SS3	HPAHs, total	19 J	12	17	1.6
Olympus 1994	11/23/1993	SS1	HPAHs, total	12.78	12	17	1.1
Olympus 1994	11/17/1993	SS2	HPAHs, total	3.9	12	17	<1
Olympus 1994	11/17/1993	SS2	Indeno(1,2,3-cd)pyrene	0.11	0.6	0.69	<1
Olympus 1994	11/17/1993	SS3	Indeno(1,2,3-cd)pyrene	0.046 J	0.6	0.69	<1
Olympus 1994	11/23/1993	SS1	Lead	120 T	450	530	<1
Olympus 1994	11/17/1993	SS2	Lead	37 T	450	530	<1
Olympus 1994	11/17/1993	SS3	Lead	9.4 T	450	530	<1
Olympus 1994	11/23/1993	SS1	LPAHs, total	3.4	5.2	13	<1
Olympus 1994	11/17/1993	SS2	LPAHs, total	1.282	5.2	13	<1
Olympus 1994	11/17/1993	SS3	LPAHS, total	0.767	5.2	13	<1
Olympus 1994	11/23/1993	SS1	Mercury	0.35 T	0.41	0.59	<1
Olympus 1994	11/17/1993	SS2	Naphthalene	0.01 J	2.1	2.4	<1
Olympus 1994	11/23/1993	SS1	Nickel	38 T			
Olympus 1994	11/17/1993	SS2	Nickel	28 T			
Olympus 1994	11/17/1993	SS3	Nickel	5.5 T			
Olympus 1994	11/23/1993	SS1	Phenanthrene	0.96	1.5	5.4	<1

Table F-9
Chemicals Detected in Sediment Samples
Terminal 105

Source	Sample Date	Sample Location	Chemical	Sediment Conc'n (mg/kg DW)	SQS/LAET (mg/kg DW)	CSL/2LAET (mg/kg DW)	Exceedance Factor
Olympus 1994	11/17/1993	SS2	Phenanthrene	0.8	1.5	5.4	<1
Olympus 1994	11/17/1993	SS3	Phenanthrene	0.036 J	1.5	5.4	<1
Olympus 1994	11/23/1993	SS1	Pyrene	1.8	2.6	3.3	<1
Olympus 1994	11/17/1993	SS2	Pyrene	0.77	2.6	3.3	<1
Olympus 1994	11/17/1993	SS3	Pyrene	0.074 J	2.6	3.3	<1
Olympus 1994	11/23/1993	SS1	Xylenes, total	0.0043 J			
Olympus 1994	11/17/1993	SS3	Xylenes, total	0.0017 J			
Olympus 1994	11/23/1993	SS1	Zinc	530 T	410	960	1.3
Olympus 1994	11/17/1993	SS2	Zinc	95 T	410	960	<1
Olympus 1994	11/17/1993	SS3	Zinc	29 T	410	960	<1

mg/kg - Milligrams per kilogram
DW - Dry weight
SQS - SMS Sediment Quality Standard
CSL - SMS Cleanup Screening Level
LAET - Lowest Apparent Effects Threshold
2LAET - Second LAET
J - Estimated value
T = Total metals

Table presents detected chemicals only.
Organic chemicals were not normalized for organic carbon content during testing and these chemicals were compared with the LAET and 2LAET instead of the SQS and CSL.
Exceedance factors are the ratio of the detected concentrations to the SQS or CSL, exceedance factors are shown only if they are greater than 1.
Chemicals and samples with exceedance factors greater than 1 are shaded light yellow.

Table F-10
Chemicals Detected in Soil Samples
Seaboard Lumber

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
ESL 1992	8/25/1992	MW3-2		1,1,2,2-Tetrachloroethane	0.013	5		<1
ESL 1992	8/25/1992	MW3-1		1,1,2,2-Tetrachloroethane	0.0041	5		<1
ESL 1992	8/26/1992	MW4-1		1,2-Dichlorobenzene	0.15	7,200	0.0038	39
ESL 1992	8/27/1992	920827-3		1,2-Dichlorobenzene	0.069 G	7,200	0.0038	18
ESL 1992	8/25/1992	MW3-2		1,2-Dichlorobenzene	0.018	7,200	0.0038	4.7
ESL 1992	8/27/1992	920827-1		1,2-Dichlorobenzene	0.015 G	7,200	0.0038	3.9
ESL 1992	8/25/1992	SB3-1		1,2-Dichlorobenzene	0.014 GJ	7,200	0.0038	3.7
ESL 1992	8/27/1992	920827-2		1,2-Dichlorobenzene	0.0079 G	7,200	0.0038	2.1
ESL 1992	8/25/1992	SB1-1		1,2-Dichlorobenzene	0.0058 G	7,200	0.0038	1.5
ESL 1992	8/26/1992	MW5-2Dup		1,2-Dichlorobenzene	0.0044 DGJ	7,200	0.0038	1.2
ESL 1992	8/26/1992	MW6-2		1,2-Dichlorobenzene	0.0043 GJ	7,200	0.0038	1.1
ESL 1992	8/25/1992	SB1-2		1,2-Dichlorobenzene	0.0042 J	7,200	0.0038	1.1
ESL 1992	8/25/1992	SB3-2		1,2-Dichlorobenzene	0.0027 GJ	7,200	0.0038	<1
ESL 1992	8/26/1992	MW4-2		1,2-Dichlorobenzene	0.0019 J	7,200	0.0038	<1
ESL 1992	8/25/1992	SB2-1		1,2-Dichlorobenzene	0.0013 GJ	7,200	0.0038	<1
ESL 1992	8/26/1992	SB7-2		1,2-Dichlorobenzene	0.0012 J	7,200	0.0038	<1
ESL 1992	8/25/1992	MW3-1		1,2-Dichloroethane	0.00047	10.99		<1
ESL 1992	8/25/1992	MW3-2		1,3-Dichlorobenzene	0.012			
ESL 1992	8/25/1992	MW3-3		1,3-Dichlorobenzene	0.011			
ESL 1992	8/26/1992	MW4-2		1,3-Dichlorobenzene	0.0096			
ESL 1992	8/26/1992	MW5-2Dup		1,3-Dichlorobenzene	0.002 DGJ			
ESL 1992	8/26/1992	SB7-2		1,3-Dichlorobenzene	0.0016 J			
ESL 1992	8/25/1992	MW3-2		1,4-Dichlorobenzene	0.013		0.015	<1
ESL 1992	8/25/1992	MW3-3		1,4-Dichlorobenzene	0.012		0.015	<1
ESL 1992	8/26/1992	MW5-2Dup		1,4-Dichlorobenzene	0.002 DJ		0.015	<1
Herrera 1997a	11/22/96 - 12/13/96	SB-7	2.5 - 4.5	2-Methylnaphthalene	1.2 J	320	0.073	16
ESL 1992	8/25/1992	MW2-1		2-Methylnaphthalene	0.74 J	320	0.073	10
Herrera 1997a	11/22/96 - 12/13/96	SB-9	12.5 - 14.5	2-Methylnaphthalene	0.41 J	320	0.073	5.6
Herrera 1997a	11/22/96 - 12/13/96	SB-7	2.5 - 4.5	Acenaphthene	0.23 J	4,800	0.06	3.8
ESL 1992	8/25/1992	MW2-1		Acenaphthylene	0.065 J		0.069	<1
ESL 1992	8/25/1992	MW3-1		Antimony	0.6	32		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-20	seawall 3 - 4	Arsenic	54	0.67		81
Herrera 1996	3/12/96 - 4/7/96	MW-5	2.5 - 4	Arsenic	50	0.67	590	75
Herrera 1996	3/12/96 - 4/7/96	MW-5	5 - 6.5	Arsenic	40	0.67	590	60
Shannon & Wilson 2001	2/22/1999	066		Arsenic	33	0.67	590	49
Shannon & Wilson 2001	2/22/1999	061		Arsenic	27	0.67	590	40

Table F-10
Chemicals Detected in Soil Samples
Seaboard Lumber

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
Herrera 1997a	11/22/96 - 12/13/96	SB-7	2.5 - 4.5	Arsenic	27	0.67	590	40
Shannon & Wilson 2001	2/22/1999	062		Arsenic	18	0.67	590	27
Herrera 1997a	11/22/96 - 12/13/96	SB-20	10.0 - 12	Arsenic	16	0.67		24
Herrera 1996	3/12/96 - 4/7/96	TP-10	2.5	Arsenic	13	0.67	590	19
Herrera 1997a	11/22/96 - 12/13/96	SB-4	Surface	Arsenic	8	0.67	12,000	12
ESL 1992	8/25/1992	SB1-2Dup		Arsenic	7.1 D	0.67	590	11
Herrera 1997a	11/22/96 - 12/13/96	SB-16	1	Arsenic	7	0.67	12,000	10
Herrera 1996	3/12/96 - 4/7/96	SB-1	5 - 6.5	Arsenic	7	0.67	590	10
Herrera 1997a	11/22/96 - 12/13/96	SB-21	0.5	Arsenic	6	0.67		9.0
Herrera 1996	3/12/96 - 4/7/96	TP-11E	0.8 - 3.5	Arsenic	6	0.67	590	9.0
ESL 1992	8/27/1992	920827-2		Arsenic	4.9	0.67	590	7.3
ESL 1992	8/25/1992	SB1-2		Arsenic	4.9	0.67	590	7.3
ESL 1992	8/26/1992	SB5-1		Arsenic	3.8	0.67	590	5.7
ESL 1992	8/26/1992	SB7-1		Arsenic	3.7	0.67	590	5.5
ESL 1992	8/26/1992	MW4-1		Arsenic	3.4	0.67	590	5.1
ESL 1992	8/26/1992	SB5-3		Arsenic	3.0	0.67	590	4.5
ESL 1992	8/25/1992	MW2-2		Arsenic	2.8	0.67	590	4.2
ESL 1992	8/26/1992	SB4-2		Arsenic	2.8	0.67	590	4.2
ESL 1992	8/26/1992	SB4-3		Arsenic	2.4	0.67	590	3.6
ESL 1992	8/26/1992	MW5-3		Arsenic	1.9	0.67	590	2.8
ESL 1992	8/26/1992	MW6-3		Arsenic	1.9	0.67	590	2.8
ESL 1992	8/25/1992	MW3-1		Arsenic	1.6	0.67	590	2.4
Shannon & Wilson 2001	2/18/1999	044		Barium	130	16,000		<1
Herrera 1996	3/12/96 - 4/7/96	MW-5	2.5 - 4	Barium	54.3	16,000		<1
Shannon & Wilson 2001	2/18/1999	042		Barium	43	16,000		<1
Shannon & Wilson 2001	2/18/1999	046		Barium	42	16,000		<1
Herrera 1996	3/12/96 - 4/7/96	MW-6	5 - 6.5	Barium	32.4	16,000		<1
Herrera 1996	3/12/96 - 4/7/96	MW-4	5 - 6.5	Barium	30.9	16,000		<1
Shannon & Wilson 2001	2/18/1999	043		Barium	30	16,000		<1
Shannon & Wilson 2001	2/18/1999	045		Barium	30	16,000		<1
Shannon & Wilson 2001	2/18/1999	041		Barium	29	16,000		<1
Herrera 1996	3/12/96 - 4/7/96	SB-1	5 - 6.5	Barium	26.3	16,000		<1
Herrera 1996	3/12/96 - 4/7/96	MW-5	0 - 1.5	Barium	26.2	16,000		<1
Herrera 1996	3/12/96 - 4/7/96	SB-3	5 - 6.5	Barium	24.2	16,000		<1
Herrera 1996	3/12/96 - 4/7/96	SB-2	5 - 6.5	Barium	19.2	16,000		<1
Herrera 1996	3/12/96 - 4/7/96	MW-4	2.5 - 4	Barium	18.9	16,000		<1

Table F-10
Chemicals Detected in Soil Samples
Seaboard Lumber

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
Herrera 1996	3/12/96 - 4/7/96	MW-5	5 - 6.5	Barium	17.9	16,000		<1
Herrera 1996	3/12/96 - 4/7/96	SB-1	10 - 11.5	Barium	17.3	16,000		<1
Herrera 1996	3/12/96 - 4/7/96	SB-2	10 - 11.5	Barium	17.3	16,000		<1
Herrera 1996	3/12/96 - 4/7/96	MW-6	10 - 11.5	Barium	17.1	16,000		<1
Herrera 1996	3/12/96 - 4/7/96	SB-3	10 - 11.5	Barium	16	16,000		<1
Shannon & Wilson 2001	2/18/1999	047		Barium	15	16,000		<1
Herrera 1996	3/12/96 - 4/7/96	MW-5	7.5 - 9	Barium	13.8	16,000		<1
ESL 1992	8/25/1992	MW3-2		Benzene	0.003	0.03		<1
ESL 1992	8/26/1992	MW5-2		Benzene	0.0026 J	0.03		<1
ESL 1992	8/27/1992	920827-2		Benzene	0.0025	0.03		<1
ESL 1992	8/27/1992	920827-3		Benzene	0.0016 J	0.03		<1
ESL 1992	8/26/1992	MW4-3		Benzene	0.0014 GJ	0.03		<1
ESL 1992	8/26/1992	MW5-1		Benzene	0.0014 GJ	0.03		<1
ESL 1992	8/26/1992	MW5-2Dup		Benzene	0.00073 DJ	0.03		<1
ESL 1992	8/25/1992	MW2-1		Benzo(a)anthracene	0.33	1.37	0.27	1.2
Herrera 1996	3/12/96 - 4/7/96	TP-13	2.5	Benzo(a)anthracene	0.23	1.37	0.27	<1
ESL 1992	8/25/1992	MW2-1		Benzo(a)pyrene	0.31	0.137	0.21	2.3
Herrera 1996	3/12/96 - 4/7/96	TP-17	2.5	Benzo(a)pyrene	0.28	0.137	0.21	2.0
Herrera 1997a	11/22/96 - 12/13/96	SB-4	Surface	Benzo(a)pyrene	0.27 J	0.137	4.2	2.0
Herrera 1996	3/12/96 - 4/7/96	TP-15	2.5	Benzo(b)fluoranthene	0.32	1.37	0.45	<1
Herrera 1997a	11/22/96 - 12/13/96	SB-4	Surface	Benzo(g,h,i)perylene	0.43		1.6	<1
Herrera 1996	3/12/96 - 4/7/96	TP-19	2.5	Benzo(g,h,i)perylene	0.18		0.078	2.3
ESL 1992	8/25/1992	MW2-1		Benzo(g,h,i)perylene	0.18 J		0.078	2.3
Herrera 1996	3/12/96 - 4/7/96	TP-16	2.5	Benzo(k)fluoranthene	0.29	13.7	0.45	<1
ESL 1992	8/25/1992	MW2-1		Benzofluoranthenes, total	0.56	1.37	0.45	1.2
ESL 1992	8/25/1992	MW1-1		Benzofluoranthenes, total	0.18	1.37	0.45	<1
ESL 1992	8/25/1992	SB2-1		bis(2-Ethylhexyl)phthalate	0.077 G	71.4	0.78	<1
ESL 1992	8/25/1992	MW6-2		bis(2-Ethylhexyl)phthalate	0.069 G	71.4	0.78	<1
ESL 1992	8/25/1992	SB1-1		bis(2-Ethylhexyl)phthalate	0.066 G	71.4	0.78	<1
ESL 1992	8/25/1992	MW6-1		bis(2-Ethylhexyl)phthalate	0.054 G	71.4	0.78	<1
Herrera 1996	3/12/96 - 4/7/96	MW-5	2.5 - 4	Cadmium	3	2	1.7	1.8
Herrera 1996	3/12/96 - 4/7/96	MW-5	7.5 - 9	Cadmium	2	2	1.7	1.2
Herrera 1997a	11/22/96 - 12/13/96	SB-20	10.0 - 12	Cadmium	1.5	2		<1
Herrera 1996	3/12/96 - 4/7/96	TP-10	2.5	Cadmium	1.4	2	1.7	<1
Shannon & Wilson 2001	2/18/1999	042		Cadmium	1.2	2	1.7	<1
Herrera 1996	3/12/96 - 4/7/96	MW-5	5 - 6.5	Cadmium	1	2	1.7	<1

Table F-10
Chemicals Detected in Soil Samples
Seaboard Lumber

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
Herrera 1997a	11/22/96 - 12/13/96	SB-4	Surface	Cadmium	0.8	2	34	<1
Herrera 1997a	11/22/96 - 12/13/96	SB-20	seawall 3 - 4	Cadmium	0.8	2		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-21	0.5	Cadmium	0.7	2		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-20	7.5 - 9.5	Cadmium	0.6	2		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-19	5	Cadmium	0.4	2		<1
Herrera 1996	3/12/96 - 4/7/96	TP-11E	0.8 - 3.5	Cadmium	0.4	2	1.7	<1
Herrera 1997a	11/22/96 - 12/13/96	SB-19	1.5 - 2.5	Cadmium	0.3	2		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-9	12.5 - 14.5	Cadmium	0.3	2	1.7	<1
Herrera 1997a	11/22/96 - 12/13/96	SB-7	2.5 - 4.5	Cadmium	0.3	2	1.7	<1
Herrera 1997a	11/22/96 - 12/13/96	SB-18	2.5 - 4.5	Cadmium	0.2	2	1.7	<1
ESL 1992	8/26/1992	MW4-1		Chlorobenzene	0.037 G	1,600		<1
ESL 1992	8/26/1992	MW4-2		Chlorobenzene	0.0093 G	1,600		<1
ESL 1992	8/27/1992	920827-3		Chlorobenzene	0.0086	1,600		<1
ESL 1992	8/25/1992	MW3-2		Chlorobenzene	0.0072 G	1,600		<1
ESL 1992	8/26/1992	SB4-3		Chlorobenzene	0.0063	1,600		<1
ESL 1992	8/25/1992	MW3-3		Chlorobenzene	0.0054 G	1,600		<1
ESL 1992	8/25/1992	MW3-1		Chlorobenzene	0.005 G	1,600		<1
ESL 1992	8/27/1992	920827-2		Chlorobenzene	0.004	1,600		<1
ESL 1992	8/27/1992	920827-1		Chlorobenzene	0.003	1,600		<1
ESL 1992	8/26/1992	MW4-3		Chlorobenzene	0.0022 GJ	1,600		<1
ESL 1992	8/26/1992	MW5-2Dup		Chlorobenzene	0.0019 DGJ	1,600		<1
ESL 1992	8/26/1992	MW5-1		Chlorobenzene	0.0017 GJ	1,600		<1
ESL 1992	8/26/1992	MW5-2		Chlorobenzene	0.0012 J	1,600		<1
ESL 1992	8/26/1992	SB4-1		Chlorobenzene	0.00082 J	1,600		<1
ESL 1992	8/25/1992	SB2-3Dup		Chloroform	0.018 D	800		<1
ESL 1992	8/25/1992	SB6-2Dup		Chloroform	0.0079 D	800		<1
ESL 1992	8/25/1992	SB2-1		Chloroform	0.0067	800		<1
ESL 1992	8/25/1992	MW3-2		Chloroform	0.0036 G	800		<1
Herrera 1996	3/12/96 - 4/7/96	MW-5	2.5 - 4	Chromium	116	2,000	270	<1
Herrera 1996	3/12/96 - 4/7/96	MW-5	7.5 - 9	Chromium	79	2,000	270	<1
Herrera 1996	3/12/96 - 4/7/96	MW-5	5 - 6.5	Chromium	77	2,000	270	<1
Herrera 1996	3/12/96 - 4/7/96	TP-10	2.5	Chromium	53.3	2,000	270	<1
Herrera 1997a	11/22/96 - 12/13/96	SB-20	10.0 - 12	Chromium	47.9	2,000		<1
Shannon & Wilson 2001	2/18/1999	042		Chromium	37	2,000	270	<1
Herrera 1997a	11/22/96 - 12/13/96	SB-4	Surface	Chromium	36.9	2,000	5,400	<1
Herrera 1997a	11/22/96 - 12/13/96	SB-7	2.5 - 4.5	Chromium	35.4	2,000	270	<1

Table F-10
Chemicals Detected in Soil Samples
Seaboard Lumber

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
Herrera 1997a	11/22/96 - 12/13/96	SB-19	5	Chromium	32.3	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-9	12.5 - 14.5	Chromium	32.3	2,000	270	<1
Herrera 1997a	11/22/96 - 12/13/96	SB-8	7.5 - 9.5	Chromium	29	2,000	270	<1
Herrera 1997a	11/22/96 - 12/13/96	SB-17	0.5 - 2.5	Chromium	27.8	2,000	270	<1
Herrera 1997a	11/22/96 - 12/13/96	SB-20	seawall 3 - 4	Chromium	27.7	2,000	270	<1
Shannon & Wilson 2001	3/23/1999	082		Chromium	26	2,000	270	<1
Herrera 1997a	11/22/96 - 12/13/96	SB-16	1	Chromium	24.3	2,000	5,400	<1
Herrera 1997a	11/22/96 - 12/13/96	SB-21	0.5	Chromium	23.3	2,000		<1
ESL 1992	8/26/1992	SB4-3		Chromium	23	2,000	270	<1
Herrera 1996	3/12/96 - 4/7/96	TP-11E	0.8 - 3.5	Chromium	22.3	2,000	270	<1
Herrera 1997a	11/22/96 - 12/13/96	SB-20	7.5 - 9.5	Chromium	22.3	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-17	2.5 - 4.5	Chromium	21.8	2,000	270	<1
Herrera 1997a	11/22/96 - 12/13/96	SB-21	5.0 - 7	Chromium	19.8	2,000		<1
Herrera 1996	3/12/96 - 4/7/96	MW-4	5 - 6.5	Chromium	19.4	2,000	270	<1
Herrera 1997a	11/22/96 - 12/13/96	SB-19	1.5 - 2.5	Chromium	18	2,000		<1
ESL 1992	8/26/1992	SB4-2		Chromium	18	2,000	270	<1
Herrera 1997a	11/22/96 - 12/13/96	SB-17	7.5 - 9.5	Chromium	17.8	2,000	270	<1
Herrera 1997a	11/22/96 - 12/13/96	SB-16	12.5 - 14.5	Chromium	16	2,000	270	<1
Shannon & Wilson 2001	3/23/1999	070		Chromium	16	2,000	270	<1
ESL 1992	8/26/1992	MW4-1		Chromium	16	2,000	270	<1
Herrera 1996	3/12/96 - 4/7/96	SB-3	5 - 6.5	Chromium	15.3	2,000	270	<1
Herrera 1996	3/12/96 - 4/7/96	SB-1	5 - 6.5	Chromium	14.3	2,000	270	<1
Shannon & Wilson 2001	2/22/1999	066		Chromium	14	2,000	270	<1
ESL 1992	8/26/1992	SB5-3		Chromium	14	2,000	270	<1
Herrera 1997a	11/22/96 - 12/13/96	SB-21	10.0 - 12	Chromium	13.9	2,000		<1
Herrera 1996	3/12/96 - 4/7/96	MW-5	0 - 1.5	Chromium	13.2	2,000	5,400	<1
Shannon & Wilson 2001	2/22/1999	067		Chromium	13	2,000	270	<1
Shannon & Wilson 2001	3/23/1999	080		Chromium	13	2,000	270	<1
Shannon & Wilson 2001	3/23/1999	084		Chromium	13	2,000	270	<1
ESL 1992	8/25/1992	SB1-2		Chromium	13	2,000	270	<1
Herrera 1996	3/12/96 - 4/7/96	MW-6	5 - 6.5	Chromium	12.7	2,000	270	<1
Herrera 1997a	11/22/96 - 12/13/96	SB-18	12.5 - 14.5	Chromium	12.4 J	2,000	270	<1
Herrera 1997a	11/22/96 - 12/13/96	SB-16	7.5 - 9.5	Chromium	12.4	2,000	270	<1
ESL 1992	8/26/1992	MW5-3		Chromium	12	2,000	270	<1
ESL 1992	8/25/1992	SB1-2Dup		Chromium	12 D	2,000	270	<1
Herrera 1996	3/12/96 - 4/7/96	SB-2	10 - 11.5	Chromium	11.8	2,000	270	<1

Table F-10
Chemicals Detected in Soil Samples
Seaboard Lumber

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
Herrera 1996	3/12/96 - 4/7/96	MW-4	2.5 - 4	Chromium	11.8	2,000	270	<1
Herrera 1997a	11/22/96 - 12/13/96	SB-19	12.5 - 14.5	Chromium	11.7	2,000		<1
Herrera 1996	3/12/96 - 4/7/96	SB-2	5 - 6.5	Chromium	11.7	2,000	270	<1
Herrera 1996	3/12/96 - 4/7/96	MW-6	10 - 11.5	Chromium	11.4	2,000	270	<1
Herrera 1996	3/12/96 - 4/7/96	SB-1	10 - 11.5	Chromium	11.4	2,000	270	<1
Herrera 1997a	11/22/96 - 12/13/96	SB-18	7.5 - 9.5	Chromium	11.3	2,000	270	<1
Shannon & Wilson 2001	2/18/1999	043		Chromium	11	2,000	270	<1
Shannon & Wilson 2001	2/18/1999	044		Chromium	11	2,000	270	<1
Shannon & Wilson 2001	2/18/1999	045		Chromium	11	2,000	270	<1
Shannon & Wilson 2001	2/18/1999	047		Chromium	11	2,000	270	<1
Shannon & Wilson 2001	2/22/1999	061		Chromium	11	2,000	270	<1
Shannon & Wilson 2001	2/22/1999	064		Chromium	11	2,000	270	<1
Herrera 1996	3/12/96 - 4/7/96	SB-3	10 - 11.5	Chromium	10.8	2,000	270	<1
Shannon & Wilson 2001	3/23/1999	077		Chromium	10.0	2,000	270	<1
Shannon & Wilson 2001	3/23/1999	083		Chromium	10	2,000	270	<1
ESL 1992	8/26/1992	SB5-1		Chromium	10	2,000	270	<1
Shannon & Wilson 2001	2/22/1999	063		Chromium	9.6	2,000	270	<1
Shannon & Wilson 2001	2/22/1999	065		Chromium	9.6	2,000	270	<1
Shannon & Wilson 2001	3/23/1999	076		Chromium	9.4	2,000	270	<1
Shannon & Wilson 2001	2/22/1999	062		Chromium	9.3	2,000	270	<1
Shannon & Wilson 2001	2/18/1999	046		Chromium	9.2	2,000	270	<1
ESL 1992	8/26/1992	SB7-1		Chromium	9	2,000	270	<1
Shannon & Wilson 2001	3/23/1999	079		Chromium	8.4	2,000	270	<1
Shannon & Wilson 2001	2/18/1999	041		Chromium	8.0	2,000	270	<1
ESL 1992	8/25/1992	MW2-2		Chromium	8	2,000	270	<1
ESL 1992	8/26/1992	MW6-3		Chromium	8	2,000	270	<1
Shannon & Wilson 2001	3/23/1999	075		Chromium	7.5	2,000	270	<1
Shannon & Wilson 2001	3/23/1999	073		Chromium	7.2	2,000	270	<1
Shannon & Wilson 2001	3/23/1999	074		Chromium	7.0	2,000	270	<1
ESL 1992	8/27/1992	920827-2		Chromium	7	2,000	270	<1
Shannon & Wilson 2001	3/23/1999	072		Chromium	6.6	2,000	270	<1
ESL 1992	8/25/1992	MW3-1		Chromium	6	2,000	270	<1
Herrera 1997a	11/22/96 - 12/13/96	SB-18	2.5 - 4.5	Chromium	5.4	2,000	270	<1
Shannon & Wilson 2001	3/23/1999	078		Chromium	5.2	2,000	270	<1
Shannon & Wilson 2001	3/23/1999	071		Chromium	4.7	2,000	270	<1
Shannon & Wilson 2001	3/23/1999	081		Chromium	4.5	2,000	270	<1

Table F-10
Chemicals Detected in Soil Samples
Seaboard Lumber

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
Herrera 1996	3/12/96 - 4/7/96	TP-10	4	Chromium	2.3	2,000	270	<1
Herrera 1996	3/12/96 - 4/7/96	TP-14	2.5	Chrysene	0.46	137	0.46	1.0
Herrera 1997a	11/22/96 - 12/13/96	SB-4	Surface	Chrysene	0.37	137	9.2	<1
ESL 1992	8/25/1992	MW2-1		Chrysene	0.30	137	0.46	<1
Herrera 1997a	11/22/96 - 12/13/96	SB-8	7.5 - 9.5	Chrysene	0.3 J	137	0.46	<1
Herrera 1997a	11/22/96 - 12/13/96	SB-7	2.5 - 4.5	Chrysene	0.29 J	137	0.46	<1
ESL 1992	8/25/1992	MW1-1		Chrysene	0.15 J	137	0.46	<1
ESL 1992	8/26/1992	SB5-1		Copper	30	3,200	39	<1
ESL 1992	8/25/1992	SB1-2		Copper	17	3,200	39	<1
ESL 1992	8/25/1992	SB1-2Dup		Copper	16 D	3,200	39	<1
ESL 1992	8/26/1992	SB5-3		Copper	11	3,200	39	<1
ESL 1992	8/27/1992	920827-2		Copper	10	3,200	39	<1
ESL 1992	8/26/1992	MW4-1		Copper	10	3,200	39	<1
ESL 1992	8/25/1992	MW3-1		Copper	8	3,200	39	<1
ESL 1992	8/26/1992	MW5-3		Copper	6	3,200	39	<1
ESL 1992	8/26/1992	MW6-3		Copper	6	3,200	39	<1
ESL 1992	8/26/1992	SB7-1		Copper	6	3,200	39	<1
ESL 1992	8/26/1992	SB4-2		Copper	4	3,200	39	<1
ESL 1992	8/26/1992	SB4-3		Copper	3	3,200	39	<1
ESL 1992	8/25/1992	MW2-2		Copper	2	3,200	39	<1
Herrera 1997a	11/22/96 - 12/13/96	SB-16	7.5 - 9.5	cPAHs, total	30	0.137		219
Herrera 1997a	11/22/96 - 12/13/96	SB-16	3.0 - 5	cPAHs, total	11	0.137		80
ESL 1995	9/7/1993	ES-3	0.9	cPAHs, total	3.973	0.137		29
Herrera 1997a	11/22/96 - 12/13/96	SB-16	1	cPAHs, total	2.3	0.137		17
ESL 1995	9/7/1993	ES-1	0 - 1.5	cPAHs, total	2.228	0.137		16
ESL 1995	9/7/1993	ES-5	1.8	cPAHs, total	2.052	0.137		15
Herrera 1996	3/12/96 - 4/7/96	TP-20	2.5	cPAHs, total	1.75	0.137		13
Herrera 1997a	11/22/96 - 12/13/96	SB-20	10.0 - 12	cPAHs, total	1.5	0.137		11
Herrera 1997a	11/22/96 - 12/13/96	SB-4	Surface	cPAHs, total	1	0.137		7.3
Herrera 1997a	11/22/96 - 12/13/96	SB-21	0.5	cPAHs, total	0.74	0.137		5.4
ESL 1995	9/7/1993	ES-5	2.25	cPAHs, total	0.556	0.137		4.1
Herrera 1997a	11/22/96 - 12/13/96	SB-17	2.5 - 4.5	cPAHs, total	0.53	0.137		3.9
Herrera 1997a	11/22/96 - 12/13/96	SB-17	0.5 - 2.5	cPAHs, total	0.45	0.137		3.3
ESL 1995	9/7/1993	ES-2	2	cPAHs, total	0.309	0.137		2.3
Herrera 1997a	11/22/96 - 12/13/96	SB-8	7.5 - 9.5	cPAHs, total	0.3 J	0.137		2.2
Herrera 1997a	11/22/96 - 12/13/96	SB-7	2.5 - 4.5	cPAHs, total	0.29 J	0.137		2.1

Table F-10
Chemicals Detected in Soil Samples
Seaboard Lumber

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
ESL 1995	9/7/1993	ES-7	0.9	cPAHs, total	0.26	0.137		1.9
ESL 1995	9/7/1993	ES-3	1.1	cPAHs, total	0.236	0.137		1.7
ESL 1995	9/7/1993	ES-5	0.5	cPAHs, total	0.164	0.137		1.2
ESL 1995	9/7/1993	ES-5	1.2	cPAHs, total	0.02	0.137		<1
ESL 1992	8/27/1992	920827-2		Dichloromethane	2.2 GFJ			
ESL 1992	8/25/1992	SB6-2Dup		Dichloromethane	0.046 DGJ			
ESL 1992	8/26/1992	SB7-2		Dichloromethane	0.043 GJ			
ESL 1992	8/25/1992	SB2-2		Dichloromethane	0.037 GJ			
ESL 1992	8/25/1992	SB2-3		Dichloromethane	0.032 GJ			
ESL 1992	8/26/1992	SB6-2		Dichloromethane	0.032 GJ			
ESL 1992	8/25/1992	SB2-3Dup		Dichloromethane	0.030 DGJ			
ESL 1992	8/25/1992	SB2-1		Dichloromethane	0.029 GJ			
ESL 1992	8/25/1992	SB3-2		Dichloromethane	0.029 GJ			
ESL 1992	8/26/1992	SB5-2		Dichloromethane	0.028 GJ			
ESL 1992	8/25/1992	SB3-1		Dichloromethane	0.026 GJ			
ESL 1992	8/26/1992	SB7-1		Dichloromethane	0.025 GJ			
ESL 1992	8/25/1992	MW3-3		Dichloromethane	0.021 GJ			
ESL 1992	8/26/1992	SB6-1		Dichloromethane	0.018 GJ			
ESL 1992	8/25/1992	MW3-2		Dichloromethane	0.016 GJ			
ESL 1992	8/26/1992	SB5-1		Dichloromethane	0.015 GJ			
ESL 1992	8/25/1992	MW3-1		Dichloromethane	0.009 GJ			
Shannon & Wilson 2001		TT-1		Diesel-range hydrocarbons	26,300	2,000		13
Shannon & Wilson 2001		TT-2		Diesel-range hydrocarbons	23,500	2,000		12
Health Risk 1999	3/31/1999	TT1 (03-194-01)		Diesel-range hydrocarbons	21,000	2,000		11
Health Risk 1999	3/31/1999	TT2 (03-194-02)		Diesel-range hydrocarbons	19,000	2,000		9.5
Shannon & Wilson 2001	3/29/1999	099		Diesel-range hydrocarbons	18,000	2,000		9.0
Health Risk 1999	4/16/1999	SPC.1		Diesel-range hydrocarbons	14,000	2,000		7.0
Shannon & Wilson 2001	3/23/1999	083		Diesel-range hydrocarbons	5,400	2,000		2.7
Herrera 1996	3/12/96 - 4/7/96	MW-4	0.5 - 1.5	Diesel-range hydrocarbons	2,600	2,000		1.3
Shannon & Wilson 2001		T-1		Diesel-range hydrocarbons	2,590	2,000		1.3
Shannon & Wilson 2001	2/22/1999	061		Diesel-range hydrocarbons	2,130	2,000		1.1
Health Risk 1999	3/31/1999	T1		Diesel-range hydrocarbons	2,100	2,000		1.1
Shannon & Wilson 2001	3/23/1999	084		Diesel-range hydrocarbons	1,740	2,000		<1
Shannon & Wilson 2001	2/10/1999	018		Diesel-range hydrocarbons	1,730	2,000		<1
Shannon & Wilson 2001	3/29/1999	102		Diesel-range hydrocarbons	1,720	2,000		<1
Shannon & Wilson 2001	3/23/1999	070		Diesel-range hydrocarbons	1,700	2,000		<1

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Chemicals Detected in Soil Samples
Seaboard Lumber

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
Shannon & Wilson 2001	3/29/1999	100		Diesel-range hydrocarbons	1,200	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-7	2.5 - 4.5	Diesel-range hydrocarbons	1,200	2,000		<1
Shannon & Wilson 2001	2/10/1999	020		Diesel-range hydrocarbons	1,100	2,000		<1
Shannon & Wilson 2001	3/29/1999	095		Diesel-range hydrocarbons	960	2,000		<1
Shannon & Wilson 2001	3/29/1999	105		Diesel-range hydrocarbons	950	2,000		<1
Shannon & Wilson 2001		T-2		Diesel-range hydrocarbons	900	2,000		<1
Shannon & Wilson 2001	2/10/1999	017		Diesel-range hydrocarbons	880	2,000		<1
Shannon & Wilson 2001		T-3		Diesel-range hydrocarbons	840	2,000		<1
Shannon & Wilson 2001	3/29/1999	098		Diesel-range hydrocarbons	820	2,000		<1
Shannon & Wilson 2001	2/10/1999	027		Diesel-range hydrocarbons	790	2,000		<1
Shannon & Wilson 2001	3/29/1999	101		Diesel-range hydrocarbons	784	2,000		<1
Shannon & Wilson 2001	2/10/1999	016		Diesel-range hydrocarbons	770	2,000		<1
Shannon & Wilson 2001	2/10/1999	024		Diesel-range hydrocarbons	720	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-8	17.5 - 19.5	Diesel-range hydrocarbons	690	2,000		<1
Shannon & Wilson 2001	2/10/1999	029		Diesel-range hydrocarbons	628	2,000		<1
Shannon & Wilson 2001	3/23/1999	074		Diesel-range hydrocarbons	610	2,000		<1
Shannon & Wilson 2001	3/29/1999	097		Diesel-range hydrocarbons	590	2,000		<1
Shannon & Wilson 2001	2/10/1999	026		Diesel-range hydrocarbons	573	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-7	20 - 22	Diesel-range hydrocarbons	550	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-17	0.5 - 2.5	Diesel-range hydrocarbons	530	2,000		<1
Shannon & Wilson 2001	2/10/1999	019		Diesel-range hydrocarbons	530	2,000		<1
Shannon & Wilson 2001	3/23/1999	080		Diesel-range hydrocarbons	470	2,000		<1
Shannon & Wilson 2001	2/10/1999	028		Diesel-range hydrocarbons	440	2,000		<1
Shannon & Wilson 2001	3/29/1999	106		Diesel-range hydrocarbons	438	2,000		<1
Shannon & Wilson 2001	5/3/1999	134		Diesel-range hydrocarbons	410	2,000		<1
Shannon & Wilson 2001	2/10/1999	021		Diesel-range hydrocarbons	408	2,000		<1
Shannon & Wilson 2001	2/10/1999	023		Diesel-range hydrocarbons	400	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-7	10.0 - 12	Diesel-range hydrocarbons	390	2,000		<1
Health Risk 1999	3/31/1999	T3		Diesel-range hydrocarbons	370	2,000		<1
Shannon & Wilson 2001	4/15/1999	124		Diesel-range hydrocarbons	340	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-6	5.0 - 7	Diesel-range hydrocarbons	340	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-23	2.5 - 4.5	Diesel-range hydrocarbons	320	2,000		<1
Shannon & Wilson 2001	3/23/1999	073		Diesel-range hydrocarbons	310	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-11	2	Diesel-range hydrocarbons	300	2,000		<1
Health Risk 1999	3/31/1999	T2		Diesel-range hydrocarbons	290	2,000		<1
Shannon & Wilson 2001	4/15/1999	125		Diesel-range hydrocarbons	290	2,000		<1

Table F-10
Chemicals Detected in Soil Samples
Seaboard Lumber

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
Herrera 1997a	11/22/96 - 12/13/96	SB-9	12.5 - 14.5	Diesel-range hydrocarbons	280	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-6	15 - 17	Diesel-range hydrocarbons	280	2,000		<1
Shannon & Wilson 2001	4/15/1999	126		Diesel-range hydrocarbons	245	2,000		<1
Shannon & Wilson 2001	3/29/1999	103		Diesel-range hydrocarbons	241	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-5	10.0 - 12	Diesel-range hydrocarbons	240	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-27	2.0 - 3	Diesel-range hydrocarbons	240	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-4	Surface	Diesel-range hydrocarbons	240	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-8	7.5 - 9.5	Diesel-range hydrocarbons	240	2,000		<1
Herrera 1996	3/12/96 - 4/7/96	MW-2	12.5 - 14	Diesel-range hydrocarbons	230	2,000		<1
Shannon & Wilson 2001	2/22/1999	066		Diesel-range hydrocarbons	230	2,000		<1
Shannon & Wilson 2001	3/23/1999	071		Diesel-range hydrocarbons	230	2,000		<1
Shannon & Wilson 2001	3/23/1999	079		Diesel-range hydrocarbons	230	2,000		<1
Shannon & Wilson 2001	2/10/1999	025		Diesel-range hydrocarbons	222	2,000		<1
Shannon & Wilson 2001	3/29/1999	104		Diesel-range hydrocarbons	220	2,000		<1
Shannon & Wilson 2001	2/10/1999	022		Diesel-range hydrocarbons	209	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	TP-22	Surface	Diesel-range hydrocarbons	200	2,000		<1
Shannon & Wilson 2001	3/29/1999	096		Diesel-range hydrocarbons	200	2,000		<1
Shannon & Wilson 2001	4/15/1999	128		Diesel-range hydrocarbons	190	2,000		<1
Shannon & Wilson 2001	2/22/1999	067		Diesel-range hydrocarbons	190	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-9	17.5 - 19.5	Diesel-range hydrocarbons	180	2,000		<1
Herrera 1996	3/12/96 - 4/7/96	MW-5	10 - 11.5	Diesel-range hydrocarbons	180	2,000		<1
Shannon & Wilson 2001	2/22/1999	063		Diesel-range hydrocarbons	170	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-16	1	Diesel-range hydrocarbons	160	2,000		<1
Shannon & Wilson 2001	3/23/1999	082		Diesel-range hydrocarbons	160	2,000		<1
Shannon & Wilson 2001	2/22/1999	062		Diesel-range hydrocarbons	150	2,000		<1
Shannon & Wilson 2001	3/23/1999	072		Diesel-range hydrocarbons	150	2,000		<1
Shannon & Wilson 2001	3/23/1999	076		Diesel-range hydrocarbons	140	2,000		<1
Shannon & Wilson 2001	3/23/1999	077		Diesel-range hydrocarbons	140	2,000		<1
Shannon & Wilson 2001	4/15/1999	127		Diesel-range hydrocarbons	130	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-10	2 - 2.5	Diesel-range hydrocarbons	120	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-20	10.0 - 12	Diesel-range hydrocarbons	120	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-6	Surface	Diesel-range hydrocarbons	120	2,000		<1
Shannon & Wilson 2001	3/23/1999	075		Diesel-range hydrocarbons	120	2,000		<1
Shannon & Wilson 2001	2/22/1999	064		Diesel-range hydrocarbons	110	2,000		<1
Shannon & Wilson 2001	2/22/1999	065		Diesel-range hydrocarbons	96	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-20	seawall 3 - 4	Diesel-range hydrocarbons	95	2,000		<1

Table F-10
Chemicals Detected in Soil Samples
Seaboard Lumber

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
Shannon & Wilson 2001	3/23/1999	081		Diesel-range hydrocarbons	86	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-16	7.5 - 9.5	Diesel-range hydrocarbons	82	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-18	7.5 - 9.5	Diesel-range hydrocarbons	81	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-5	Surface	Diesel-range hydrocarbons	74	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-12	1.0 - 3	Diesel-range hydrocarbons	72	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-17	2.5 - 4.5	Diesel-range hydrocarbons	72	2,000		<1
Health Risk 1999	3/31/1999	TT3 (03-194-03)		Diesel-range hydrocarbons	68	2,000		<1
Shannon & Wilson 2001		SPC-1		Diesel-range hydrocarbons	68	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-9	Surface	Diesel-range hydrocarbons	64 J	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-19	1.5 - 2.5	Diesel-range hydrocarbons	58	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-7	Surface	Diesel-range hydrocarbons	58 J	2,000		<1
Herrera 1996	3/12/96 - 4/7/96	TP-11E	0.8 - 3.5	Diesel-range hydrocarbons	54	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	TP-20	1.3	Diesel-range hydrocarbons	48	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-8	25 - 27	Diesel-range hydrocarbons	45	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	TP-35	1.0	Diesel-range hydrocarbons	44	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-23	8.5 - 9.5	Diesel-range hydrocarbons	42	2,000		<1
Herrera 1996	3/12/96 - 4/7/96	TP-10	2.5	Diesel-range hydrocarbons	41	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-13	1.0 - 2	Diesel-range hydrocarbons	34	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-19	5	Diesel-range hydrocarbons	32	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-26	1.5 - 2.5	Diesel-range hydrocarbons	32	2,000		<1
Herrera 1996	3/12/96 - 4/7/96	MW-5	7.5 - 9	Diesel-range hydrocarbons	30	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	TP-37	1.0	Diesel-range hydrocarbons	28	2,000		<1
Herrera 1996	3/12/96 - 4/7/96	MW-5	2.5 - 4	Diesel-range hydrocarbons	28	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-7	22.5 - 24.5	Diesel-range hydrocarbons	27	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-4	10.0 - 12	Diesel-range hydrocarbons	25	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	TP-31	2.0	Diesel-range hydrocarbons	23	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-14	5.0 - 7	Diesel-range hydrocarbons	20	2,000		<1
Herrera 1996	3/12/96 - 4/7/96	SB-1	5 - 6.5	Diesel-range hydrocarbons	16	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	TP-33	1.5	Diesel-range hydrocarbons	15	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-20	7.5 - 9.5	Diesel-range hydrocarbons	15	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-8	22.5 - 24.5	Diesel-range hydrocarbons	14	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-18	2.5 - 4.5	Diesel-range hydrocarbons	13	2,000		<1
Herrera 1996	3/12/96 - 4/7/96	MW-3	13.5	Diesel-range hydrocarbons	12	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-6	17.5 - 19.5	Diesel-range hydrocarbons	11	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	TP-32	1.5	Diesel-range hydrocarbons	10	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-24	15 - 17	Diesel-range hydrocarbons	9.7	2,000		<1

Table F-10
Chemicals Detected in Soil Samples
Seaboard Lumber

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
Herrera 1997a	11/22/96 - 12/13/96	TP-21	0.2 - 0.3	Diesel-range hydrocarbons	9.7	2,000		<1
Herrera 1996	3/12/96 - 4/7/96	MW-5	5 - 6.5	Diesel-range hydrocarbons	9.7	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	TP-21	Surface	Diesel-range hydrocarbons	9.4	2,000		<1
Herrera 1996	3/12/96 - 4/7/96	SB-1	10 - 11.5	Diesel-range hydrocarbons	9.3	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-24	7.5 - 9.5	Diesel-range hydrocarbons	9.2	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-25	1.5	Diesel-range hydrocarbons	8.4	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-5	12.5 - 14.5	Diesel-range hydrocarbons	7.5	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	TP-30	1.7	Diesel-range hydrocarbons	7.3	2,000		<1
ESL 1992	8/25/1992	SB1-1		di-n-Butylphthalate	0.029 GJ	8,000	2	<1
ESL 1992	8/25/1992	MW6-2		di-n-Butylphthalate	0.022 GJ	8,000	2	<1
ESL 1992	8/25/1992	SB2-1		di-n-Butylphthalate	0.020 GJ	8,000	2	<1
ESL 1992	8/25/1992	MW6-1		di-n-Butylphthalate	0.014 GJ	8,000	2	<1
ESL 1992	8/27/1992	920827-2		di-n-Octyl phthalate	0.74 GJ		4.5	<1
ESL 1992	8/25/1992	MW6-1		di-n-Octyl phthalate	0.29 G		4.5	<1
ESL 1992	8/25/1992	MW2-1		di-n-Octyl phthalate	0.28 G		4.5	<1
ESL 1992	8/25/1992	MW1-1		di-n-Octyl phthalate	0.16 GJ		4.5	<1
ESL 1992	8/25/1992	MW6-2		di-n-Octyl phthalate	0.13 G		4.5	<1
ESL 1992	8/25/1992	SB1-1		di-n-Octyl phthalate	0.12 G		4.5	<1
ESL 1992	8/25/1992	SB2-1		di-n-Octyl phthalate	0.078 G		4.5	<1
ESL 1992	8/25/1992	MW3-2		Ethylbenzene	0.0059 G	6		<1
ESL 1992	8/25/1992	MW3-3		Ethylbenzene	0.0032 G	6		<1
ESL 1992	8/27/1992	920827-1		Ethylbenzene	0.003 G	6		<1
ESL 1992	8/26/1992	MW5-3		Ethylbenzene	0.0026 GJ	6		<1
ESL 1992	8/26/1992	MW5-2Dup		Ethylbenzene	0.0021 DGJ	6		<1
ESL 1992	8/25/1992	SB1-3		Ethylbenzene	0.0019 GJ	6		<1
ESL 1992	8/25/1992	MW3-1		Ethylbenzene	0.0014 GJ	6		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-7	2.5 - 4.5	Fluoranthene	0.44 J	3,200	1.2	<1
Herrera 1996	3/12/96 - 4/7/96	TP-11	2.5	Fluoranthene	0.43	3,200	1.2	<1
ESL 1992	8/25/1992	MW2-1		Fluoranthene	0.38	3,200	1.2	<1
Herrera 1997a	11/22/96 - 12/13/96	SB-4	Surface	Fluoranthene	0.28	3,200	24	<1
ESL 1992	8/25/1992	MW1-1		Fluoranthene	0.11 J	3,200	1.2	<1
Herrera 1997a	11/22/96 - 12/13/96	SB-7	2.5 - 4.5	Fluorene	0.5 J	3,200	0.081	6.2
ESL 1992	8/25/1992	MW2-1		Fluorene	0.067 J	3,200	0.081	<1
Herrera 1996	3/12/96 - 4/7/96	TP-18	4	Gasoline-range hydrocarbons	780	30		26
Herrera 1996	3/12/96 - 4/7/96	TP-18	2.5	Gasoline-range hydrocarbons	140	30		4.7
Herrera 1997a	11/22/96 - 12/13/96	Trench 3		Gasoline-range hydrocarbons	18	30		<1

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Chemicals Detected in Soil Samples
Seaboard Lumber

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
ESL 1992	NA	9208644-1		Heavy oil-range hydrocarbons	14,000	2,000		7.0
Health Risk 1999	3/31/1999	TT1 (03-194-01)		Heavy oil-range hydrocarbons	5,300	2,000		2.7
Health Risk 1999	3/31/1999	TT2 (03-194-02)		Heavy oil-range hydrocarbons	4,500	2,000		2.3
Health Risk 1999	4/16/1999	SPC.1		Heavy oil-range hydrocarbons	4,000	2,000		2.0
Herrera 1997a	11/22/96 - 12/13/96	SB-27	2.0 - 3	Heavy oil-range hydrocarbons	1,400	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-8	17.5 - 19.5	Heavy oil-range hydrocarbons	1,200 J	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-7	2.5 - 4.5	Heavy oil-range hydrocarbons	1,200	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-8	7.5 - 9.5	Heavy oil-range hydrocarbons	1,200	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-4	Surface	Heavy oil-range hydrocarbons	1,100 J	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-6	5.0 - 7	Heavy oil-range hydrocarbons	1,000 J	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	TP-22	Surface	Heavy oil-range hydrocarbons	930 J	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-9	12.5 - 14.5	Heavy oil-range hydrocarbons	870	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-7	10.0 - 12	Heavy oil-range hydrocarbons	840	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-23	2.5 - 4.5	Heavy oil-range hydrocarbons	820	2,000		<1
Herrera 1996	3/12/96 - 4/7/96	MW-2	12.5 - 14	Heavy oil-range hydrocarbons	810	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-11	2	Heavy oil-range hydrocarbons	780	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-7	20 - 22	Heavy oil-range hydrocarbons	750	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-6	Surface	Heavy oil-range hydrocarbons	730 J	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-21	0.5	Heavy oil-range hydrocarbons	670	2,000		<1
Health Risk 1999	3/31/1999	T2		Heavy oil-range hydrocarbons	610	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-10	2 - 2.5	Heavy oil-range hydrocarbons	560	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-6	15 - 17	Heavy oil-range hydrocarbons	510	2,000		<1
ESL 1992	NA	9209108-8		Heavy oil-range hydrocarbons	500	2,000		<1
Health Risk 1999	3/31/1999	T1		Heavy oil-range hydrocarbons	490	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-5	Surface	Heavy oil-range hydrocarbons	480 J	2,000		<1
Health Risk 1999	3/31/1999	T3		Heavy oil-range hydrocarbons	470	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-7	Surface	Heavy oil-range hydrocarbons	410 J	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-16	1	Heavy oil-range hydrocarbons	400	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-9	Surface	Heavy oil-range hydrocarbons	390 J	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-17	0.5 - 2.5	Heavy oil-range hydrocarbons	360	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-9	17.5 - 19.5	Heavy oil-range hydrocarbons	340	2,000		<1
Herrera 1996	3/12/96 - 4/7/96	MW-4	0.5 - 1.5	Heavy oil-range hydrocarbons	320	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-5	10.0 - 12	Heavy oil-range hydrocarbons	270 J	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-20	10.0 - 12	Heavy oil-range hydrocarbons	210	2,000		<1
ESL 1992	NA	9209108-9		Heavy oil-range hydrocarbons	210	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-12	1.0 - 3	Heavy oil-range hydrocarbons	190	2,000		<1

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Chemicals Detected in Soil Samples
Seaboard Lumber

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
Herrera 1996	3/12/96 - 4/7/96	TP-10	2.5	Heavy oil-range hydrocarbons	180	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-26	1.5 - 2.5	Heavy oil-range hydrocarbons	170	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-20	seawall 3 - 4	Heavy oil-range hydrocarbons	150	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	TP-37	1.0	Heavy oil-range hydrocarbons	140	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-8	25 - 27	Heavy oil-range hydrocarbons	140	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-16	7.5 - 9.5	Heavy oil-range hydrocarbons	130	2,000		<1
Herrera 1996	3/12/96 - 4/7/96	TP-11E	0.8 - 3.5	Heavy oil-range hydrocarbons	120	2,000		<1
Herrera 1996	3/12/96 - 4/7/96	MW-5	10 - 11.5	Heavy oil-range hydrocarbons	120	2,000		<1
Herrera 1996	3/12/96 - 4/7/96	SB-1	5 - 6.5	Heavy oil-range hydrocarbons	120	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-17	2.5 - 4.5	Heavy oil-range hydrocarbons	110	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-13	1.0 - 2	Heavy oil-range hydrocarbons	110	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-19	1.5 - 2.5	Heavy oil-range hydrocarbons	110	2,000		<1
Herrera 1996	3/12/96 - 4/7/96	MW-5	2.5 - 4	Heavy oil-range hydrocarbons	110	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-20	7.5 - 9.5	Heavy oil-range hydrocarbons	110	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-19	5	Heavy oil-range hydrocarbons	100	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-4	10.0 - 12	Heavy oil-range hydrocarbons	98	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	TP-31	2.0	Heavy oil-range hydrocarbons	92	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-18	7.5 - 9.5	Heavy oil-range hydrocarbons	89	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-23	8.5 - 9.5	Heavy oil-range hydrocarbons	77	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	TP-33	1.5	Heavy oil-range hydrocarbons	74	2,000		<1
Herrera 1996	3/12/96 - 4/7/96	SB-1	10 - 11.5	Heavy oil-range hydrocarbons	70	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-21	5.0 - 7	Heavy oil-range hydrocarbons	68	2,000		<1
Herrera 1996	3/12/96 - 4/7/96	MW-5	7.5 - 9	Heavy oil-range hydrocarbons	66	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	TP-21	0.38	Heavy oil-range hydrocarbons	56	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	TP-35	1.0	Heavy oil-range hydrocarbons	55	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-25	1.5	Heavy oil-range hydrocarbons	54	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	TP-32	1.5	Heavy oil-range hydrocarbons	46	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-8	22.5 - 24.5	Heavy oil-range hydrocarbons	44	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SS-07	2.25 - 2.75	Heavy oil-range hydrocarbons	44	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	TP-21	0.2 - 0.3	Heavy oil-range hydrocarbons	42	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	TP-20	1.3	Heavy oil-range hydrocarbons	41	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-24	7.5 - 9.5	Heavy oil-range hydrocarbons	39	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SS-07	0.5 - 0.75	Heavy oil-range hydrocarbons	38	2,000		<1
Herrera 1996	3/12/96 - 4/7/96	MW-3	13.5	Heavy oil-range hydrocarbons	34	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-5	12.5 - 14.5	Heavy oil-range hydrocarbons	33	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-6	17.5 - 19.5	Heavy oil-range hydrocarbons	33	2,000		<1

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Chemicals Detected in Soil Samples
Seaboard Lumber

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
Herrera 1996	3/12/96 - 4/7/96	MW-5	0 - 1.5	Heavy oil-range hydrocarbons	33	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-14	5.0 - 7	Heavy oil-range hydrocarbons	33	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-24	15 - 17	Heavy oil-range hydrocarbons	31	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	TP-30	1.7	Heavy oil-range hydrocarbons	31	2,000		<1
Herrera 1996	3/12/96 - 4/7/96	MW-5	5 - 6.5	Heavy oil-range hydrocarbons	29	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	TP-21	Surface	Heavy oil-range hydrocarbons	28	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-18	2.5 - 4.5	Heavy oil-range hydrocarbons	26	2,000		<1
Herrera 1996	3/12/96 - 4/7/96	SB-3	5 - 6.5	Heavy oil-range hydrocarbons	25	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-17	7.5 - 9.5	Heavy oil-range hydrocarbons	25	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-14	0.5 - 2.5	Heavy oil-range hydrocarbons	23	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-7	22.5 - 24.5	Heavy oil-range hydrocarbons	20	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-16	12.5 - 14.5	Heavy oil-range hydrocarbons	19	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-23	12.5 - 14.5	Heavy oil-range hydrocarbons	17	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-4	27.5 - 29.5	Heavy oil-range hydrocarbons	17	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	MW-8	5.0 - 7	Heavy oil-range hydrocarbons	16	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	TP-20	2.7	Heavy oil-range hydrocarbons	16	2,000		<1
Herrera 1996	3/12/96 - 4/7/96	MW-6	5 - 6.5	Heavy oil-range hydrocarbons	14	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-26	12.5 - 14.5	Heavy oil-range hydrocarbons	13	2,000		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-4	Surface	Indeno(1,2,3-cd)pyrene	0.36	1.37	1.8	<1
ESL 1992	8/25/1992	MW2-1		Indeno(1,2,3-cd)pyrene	0.18 J	1.37	0.088	2.0
Herrera 1996	3/12/96 - 4/7/96	TP-18	2.5	Indeno(1,2,3-cd)pyrene	0.17	1.37	0.088	1.9
Herrera 1996	3/12/96 - 4/7/96	TP-11E	0.8 - 3.5	Lead	1,210 J	250	67	18
Herrera 1997a	11/22/96 - 12/13/96	SB-20	7.5 - 9.5	Lead	1,040	250		4.2
Shannon & Wilson 2001	3/23/1999	070		Lead	920	250	67	14
Herrera 1996	3/12/96 - 4/7/96	TP-9	1.7 - 2	Lead	849	250	1,300	3.4
ESL 1995	1994	N 1		Lead	670	250	67	10
Herrera 1997a	11/22/96 - 12/13/96	SB-13	1.0 - 2	Lead	641	250	1,300	2.6
ESL 1995	9/7/1993	ES-5	1.8	Lead	560	250	1,300	2.2
Herrera 1996	3/12/96 - 4/7/96	TP-7	1.3 - 1.7	Lead	484	250	1,300	1.9
Herrera 1996	3/12/96 - 4/7/96	TP-6	0.6 - 0.8	Lead	453	250	1,300	1.8
Herrera 1997a	11/22/96 - 12/13/96	SB-17	2.5 - 4.5	Lead	416 J	250	67	6.2
Shannon & Wilson 2001	3/23/1999	077		Lead	390	250	67	5.8
Shannon & Wilson 2001	2/18/1999	046		Lead	340	250	67	5.1
Herrera 1997a	11/22/96 - 12/13/96	SB-17	0.5 - 2.5	Lead	335 J	250	67	5.0
ESL 1995	9/7/1993	ES-3	0.9	Lead	330	250	1,300	1.3
Shannon & Wilson 2001	3/23/1999	073		Lead	330	250	67	4.9

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Health Risk 1999	5/3/1999	132 6A		Lead	310	250	67	4.6
Herrera 1996	3/12/96 - 4/7/96	TP-8	2.2 - 2.5	Lead	300	250	67	4.5
Herrera 1997a	11/22/96 - 12/13/96	SB-20	10.0 - 12	Lead	283	250		1.1
ESL 1992	8/27/1992	920827-2		Lead	250	250	67	3.7
Herrera 1996	3/12/96 - 4/7/96	TP-10	2.5	Lead	239 J	250	67	3.6
ESL 1995	1994	U 5		Lead	220	250	67	3.3
Herrera 1996	3/12/96 - 4/7/96	TP-11W	0.8 - 1.7	Lead	212	250	1,300	<1
Herrera 1997a	11/22/96 - 12/13/96	SB-19	5	Lead	204	250		<1
ESL 1995	9/7/1993	ES-5	2.25	Lead	200	250	1,300	<1
ESL 1995	1994	N 8		Lead	190	250	67	2.8
Herrera 1996	3/12/96 - 4/7/96	TP-8	1.0 - 1.2	Lead	186	250	1,300	<1
Shannon & Wilson 2001	2/22/1999	067		Lead	180	250	67	2.7
Herrera 1997a	11/22/96 - 12/13/96	TP-31	2.0	Lead	177	250	1,300	<1
Herrera 1997a	11/22/96 - 12/13/96	SB-14	0.5	Lead	171 J	250	1,300	<1
Health Risk 1999	5/3/1999	133 6A		Lead	170	250	67	2.5
ESL 1995	1994	N 4		Lead	170	250	67	2.5
ESL 1995	1994	U 7		Lead	170	250	67	2.5
Shannon & Wilson 2001	2/18/1999	045		Lead	170	250	67	2.5
ESL 1995	1994	C 11		Lead	160	250	67	2.4
Shannon & Wilson 2001	3/23/1999	074		Lead	160	250	67	2.4
Herrera 1997a	11/22/96 - 12/13/96	TP-35	1.0	Lead	156	250	1,300	<1
ESL 1995	1994	O 3		Lead	150	250	67	2.2
ESL 1995	1994	O 5		Lead	150	250	67	2.2
ESL 1995	1994	U 4		Lead	150	250	67	2.2
ESL 1995	1994	X 6		Lead	150	250	67	2.2
Herrera 1996	3/12/96 - 4/7/96	MW-5	2.5 - 4	Lead	140	250	67	2.1
ESL 1995	1994	S 8		Lead	140	250	67	2.1
Herrera 1996	3/12/96 - 4/7/96	TP-16	0.6 - 1.2	Lead	133	250	1,300	<1
ESL 1995	9/7/1993	ES-3	2.1	Lead	130	250	1,300	<1
ESL 1995	1994	C 10		Lead	130	250	67	1.9
ESL 1995	1994	P 8		Lead	130	250	67	1.9
Shannon & Wilson 2001	3/23/1999	076		Lead	130	250	67	1.9
Herrera 1997a	11/22/96 - 12/13/96	SB-21	0.5	Lead	126	250		<1
ESL 1995	9/7/1993	ES-1	0 - 1.5	Lead	120	250	1,300	<1
ESL 1995	1994	Q 7		Lead	120	250	67	1.8
ESL 1995	1994	R 12		Lead	120	250	67	1.8

Table F-10
Chemicals Detected in Soil Samples
Seaboard Lumber

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
Shannon & Wilson 2001	2/22/1999	063		Lead	120	250	67	1.8
Herrera 1997a	11/22/96 - 12/13/96	SB-18	7.5 - 9.5	Lead	116 J	250	67	1.7
Herrera 1997a	11/22/96 - 12/13/96	SB-4	Surface	Lead	114	250	1,300	<1
Herrera 1997a	11/22/96 - 12/13/96	SB-20	seawall 3 - 4	Lead	113	250		<1
ESL 1995	9/7/1993	ES-2	1	Lead	110	250	1,300	<1
ESL 1995	1994	D11		Lead	110	250	67	1.6
ESL 1995	1994	E 11		Lead	110	250	67	1.6
ESL 1995	1994	Q 5		Lead	110	250	67	1.6
ESL 1995	1994	T 7		Lead	110	250	67	1.6
ESL 1995	1994	W 6		Lead	110	250	67	1.6
Shannon & Wilson 2001	3/23/1999	079		Lead	110	250	67	1.6
ESL 1995	1994	K 9		Lead	100	250	67	1.5
Shannon & Wilson 2001	2/18/1999	043		Lead	100	250	67	1.5
Shannon & Wilson 2001	3/23/1999	080		Lead	98	250	67	1.5
ESL 1995	1994	P 9		Lead	93	250	67	1.4
Herrera 1997a	11/22/96 - 12/13/96	SB-18	2.5 - 4.5	Lead	92	250	67	1.4
Herrera 1996	3/12/96 - 4/7/96	TP-12	0.7	Lead	92	250	1,300	<1
Herrera 1996	3/12/96 - 4/7/96	TP-7	0.6 - 0.8	Lead	91	250	1,300	<1
Shannon & Wilson 2001	3/23/1999	082		Lead	87	250	67	1.3
Shannon & Wilson 2001	3/23/1999	084		Lead	85	250	67	1.3
Herrera 1997a	11/22/96 - 12/13/96	SB-19	1.5 - 2.5	Lead	83	250		<1
ESL 1995	1994	R 9		Lead	83	250	67	1.2
Shannon & Wilson 2001	2/22/1999	064		Lead	81	250	67	1.2
ESL 1995	1994	Q 9		Lead	79	250	67	1.2
Herrera 1997a	11/22/96 - 12/13/96	TP-30	1.7	Lead	77	250	1,300	<1
ESL 1995	1994	P 6		Lead	76	250	67	1.1
Herrera 1997a	11/22/96 - 12/13/96	SB-25	1.5	Lead	74 J	250	1,300	<1
ESL 1992	8/26/1992	SB5-3		Lead	71	250	67	1.1
ESL 1995	1994	T 3		Lead	70	250	67	1.0
Shannon & Wilson 2001	2/18/1999	047		Lead	70	250	67	1.0
Health Risk 1999	5/3/1999	SBED 143 6E		Lead	69	250	67	1.0
Herrera 1996	3/12/96 - 4/7/96	TP-13	0.4 - 2.7	Lead	67	250	1,300	<1
Herrera 1997a	11/22/96 - 12/13/96	SB-7	2.5 - 4.5	Lead	66	250	67	<1
ESL 1995	1994	T 8		Lead	63	250	67	<1
Shannon & Wilson 2001	3/23/1999	083		Lead	62	250	67	<1
ESL 1995	1994	R 5		Lead	60	250	67	<1

Table F-10
Chemicals Detected in Soil Samples
Seaboard Lumber

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
ESL 1995	1994	O 4		Lead	58	250	67	<1
Shannon & Wilson 2001	2/18/1999	042		Lead	57	250	67	<1
Shannon & Wilson 2001	2/22/1999	066		Lead	57	250	67	<1
Herrera 1996	3/12/96 - 4/7/96	TP-6	1.3	Lead	54	250	1,300	<1
Herrera 1997a	11/22/96 - 12/13/96	SB-16	1	Lead	53 J	250	1,300	<1
ESL 1995	1994	M 9		Lead	52	250	67	<1
Herrera 1997a	11/22/96 - 12/13/96	TP-33	1.5	Lead	51	250	1,300	<1
Herrera 1996	3/12/96 - 4/7/96	MW-5	7.5 - 9	Lead	50	250	67	<1
ESL 1995	9/7/1993	ES-7	0.9	Lead	49	250	1,300	<1
ESL 1995	9/7/1993	ES-4	1.2	Lead	47	250	1,300	<1
ESL 1995	1994	K 10		Lead	46	250	67	<1
ESL 1992	8/26/1992	SB5-1		Lead	46	250	67	<1
Herrera 1997a	11/22/96 - 12/13/96	SB-15	0.5	Lead	45 J	250	1,300	<1
Shannon & Wilson 2001	2/18/1999	041		Lead	45	250	67	<1
ESL 1995	1994	J 10		Lead	43	250	67	<1
ESL 1992	8/26/1992	MW4-1		Lead	43	250	67	<1
Shannon & Wilson 2001	2/22/1999	061		Lead	43	250	67	<1
ESL 1995	9/7/1993	ES-5	2.8	Lead	42	250	67	<1
Herrera 1996	3/12/96 - 4/7/96	MW-5	5 - 6.5	Lead	40	250	67	<1
Herrera 1997a	11/22/96 - 12/13/96	TP-32	1.5	Lead	38	250	1,300	<1
ESL 1995	9/7/1993	ES-2	2	Lead	38	250	1,300	<1
ESL 1995	1994	U 3		Lead	38	250	67	<1
Health Risk 1999	5/3/1999	SBED 142 6E		Lead	35	250	67	<1
Shannon & Wilson 2001	2/22/1999	062		Lead	35	250	67	<1
ESL 1995	9/7/1993	ES-6	1.75	Lead	34	250	1,300	<1
Herrera 1997a	11/22/96 - 12/13/96	SB-9	12.5 - 14.5	Lead	33	250	67	<1
ESL 1995	9/7/1993	ES-6	1	Lead	33	250	1,300	<1
Shannon & Wilson 2001	2/18/1999	044		Lead	33	250	67	<1
Herrera 1997a	11/22/96 - 12/13/96	SB-8	7.5 - 9.5	Lead	33	250	67	<1
Herrera 1996	3/12/96 - 4/7/96	TP-5	1.0	Lead	32	250	1,300	<1
Herrera 1997a	11/22/96 - 12/13/96	SB-11	2	Lead	32	250	1,300	<1
Shannon & Wilson 2001	3/23/1999	078		Lead	30	250	67	<1
ESL 1995	9/7/1993	ES-5	0.5	Lead	29	250	1,300	<1
Shannon & Wilson 2001	3/23/1999	072		Lead	29	250	67	<1
Herrera 1996	3/12/96 - 4/7/96	TP-10	4	Lead	28 J	250	67	<1
ESL 1995	1994	N 7		Lead	28	250	67	<1

Table F-10
Chemicals Detected in Soil Samples
Seaboard Lumber

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
ESL 1995	1994	S 11		Lead	27	250	67	<1
Shannon & Wilson 2001	6/7/1999	194		Lead	27	250	67	<1
Herrera 1997a	11/22/96 - 12/13/96	SB-16	7.5 - 9.5	Lead	27 J	250	67	<1
ESL 1995	1994	O 8		Lead	26	250	67	<1
Shannon & Wilson 2001	2/22/1999	065		Lead	25	250	67	<1
Herrera 1996	3/12/96 - 4/7/96	MW-5	0 - 1.5	Lead	24	250	1,300	<1
Herrera 1997a	11/22/96 - 12/13/96	SB-11	2.0 - 4	Lead	24	250	67	<1
ESL 1995	1994	Y 6		Lead	24	250	67	<1
Herrera 1997a	11/22/96 - 12/13/96	SB-10	2 - 2.5	Lead	23	250	67	<1
Herrera 1997a	11/22/96 - 12/13/96	TP-37	1.0	Lead	23	250	1,300	<1
ESL 1995	1994	P 4		Lead	23	250	67	<1
ESL 1995	1994	Q 3		Lead	23	250	67	<1
ESL 1995	1994	E 10		Lead	22	250	67	<1
ESL 1995	1994	I 9		Lead	22	250	67	<1
ESL 1995	9/7/1993	ES-8	1.4	Lead	21	250	1,300	<1
Herrera 1997a	11/22/96 - 12/13/96	SS-07	0.5 - 0.75	Lead	21	250	1,300	<1
ESL 1995	1994	N 11		Lead	21	250	67	<1
ESL 1995	1994	O12		Lead	20	250	67	<1
Shannon & Wilson 2001	3/23/1999	071		Lead	20	250	67	<1
ESL 1995	1994	D 8		Lead	18	250	67	<1
ESL 1995	1994	D10		Lead	18	250	67	<1
ESL 1995	1994	R 3		Lead	18	250	67	<1
ESL 1995	1994	R 6		Lead	18	250	67	<1
ESL 1995	1994	M 2		Lead	17	250	67	<1
ESL 1995	1994	V 4		Lead	17	250	67	<1
Herrera 1997a	11/22/96 - 12/13/96	SB-12	3.0 - 5	Lead	16	250	67	<1
ESL 1995	9/7/1993	ES-2	2.5	Lead	16	250	67	<1
ESL 1995	1994	M 10		Lead	16	250	67	<1
ESL 1995	1994	M 4		Lead	16	250	67	<1
ESL 1995	1994	M 6		Lead	16	250	67	<1
ESL 1995	1994	S 5		Lead	16	250	67	<1
ESL 1995	1994	T 5		Lead	16	250	67	<1
ESL 1995	1994	T5		Lead	16	250	67	<1
Herrera 1996	3/12/96 - 4/7/96	TP-10	1	Lead	15	250	1,300	<1
ESL 1995	1994	P 10		Lead	15	250	67	<1
ESL 1995	1994	R 10		Lead	15	250	67	<1

Table F-10
Chemicals Detected in Soil Samples
Seaboard Lumber

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
ESL 1995	1994	U 6		Lead	15	250	67	<1
ESL 1995	1994	V 6		Lead	15	250	67	<1
Herrera 1997a	11/22/96 - 12/13/96	SB-10	3 - 3.5	Lead	14	250	67	<1
ESL 1995	9/7/1993	ES-3	1.1	Lead	14	250	1,300	<1
ESL 1995	1994	J 9		Lead	14	250	67	<1
ESL 1995	1994	M 8		Lead	14	250	67	<1
Herrera 1997a	11/22/96 - 12/13/96	SB-10	5.5 - 7.5	Lead	13	250	67	<1
Herrera 1997a	11/22/96 - 12/13/96	SB-11	6.0 - 8	Lead	13	250	67	<1
Herrera 1996	3/12/96 - 4/7/96	TP-9	1	Lead	13	250	1,300	<1
Herrera 1997a	11/22/96 - 12/13/96	SB-12	1.0 - 3	Lead	13	250	67	<1
ESL 1995	1994	L 2		Lead	13	250	67	<1
ESL 1995	1994	M 7		Lead	13	250	67	<1
ESL 1995	1994	O 9		Lead	13	250	67	<1
ESL 1995	1994	Q 12		Lead	13	250	67	<1
ESL 1995	1994	Q 4		Lead	13	250	67	<1
ESL 1992	8/26/1992	SB7-1		Lead	13	250	67	<1
Herrera 1997a	11/22/96 - 12/13/96	SB-12	5.0 - 7	Lead	12	250	67	<1
ESL 1995	1994	O 1		Lead	12	250	67	<1
ESL 1995	1994	O10		Lead	12	250	67	<1
ESL 1995	1994	P 12		Lead	12	250	67	<1
Herrera 1997a	11/22/96 - 12/13/96	SB-27	2.0 - 3	Lead	11 J	250	67	<1
Health Risk 1999	5/3/1999	131 6A		Lead	11	250	67	<1
ESL 1995	1994	M 5		Lead	11	250	67	<1
Herrera 1997a	11/22/96 - 12/13/96	SB-17	7.5 - 9.5	Lead	11 J	250	67	<1
ESL 1995	9/7/1993	ES-5	1.2	Lead	10	250	1,300	<1
Herrera 1997a	11/22/96 - 12/13/96	SB-16	12.5 - 14.5	Lead	9 J	250	67	<1
Herrera 1996	3/12/96 - 4/7/96	SB-1	5 - 6.5	Lead	9	250	67	<1
Herrera 1997a	11/22/96 - 12/13/96	SB-11	4.0 - 6	Lead	8	250	67	<1
Herrera 1996	3/12/96 - 4/7/96	TP-6	0.3 - 0.6	Lead	8	250	1,300	<1
Herrera 1996	3/12/96 - 4/7/96	MW-4	5 - 6.5	Lead	8	250	67	<1
Herrera 1997a	11/22/96 - 12/13/96	SB-21	5.0 - 7	Lead	7	250		<1
Herrera 1996	3/12/96 - 4/7/96	TP-8	4	Lead	7	250	67	<1
Herrera 1997a	11/22/96 - 12/13/96	SS-08	2.25 - 2.75	Lead	7	250	67	<1
Herrera 1996	3/12/96 - 4/7/96	MW-6	5 - 6.5	Lead	7	250	67	<1
Herrera 1997a	11/22/96 - 12/13/96	SB-10	3.5 - 5.5	Lead	6	250	67	<1
Herrera 1997a	11/22/96 - 12/13/96	SB-13	3.0 - 5	Lead	5 J	250	67	<1

Table F-10
Chemicals Detected in Soil Samples
Seaboard Lumber

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
Herrera 1996	3/12/96 - 4/7/96	TP-16	2.5	Lead	5	250	67	<1
Herrera 1996	3/12/96 - 4/7/96	TP-7	3	Lead	5	250	67	<1
Herrera 1996	3/12/96 - 4/7/96	SB-1	10 - 11.5	Lead	5	250	67	<1
Herrera 1996	3/12/96 - 4/7/96	MW-4	2.5 - 4	Lead	5	250	67	<1
Herrera 1997a	11/22/96 - 12/13/96	SB-19	12.5 - 14.5	Lead	4	250		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-18	12.5 - 14.5	Lead	4 J	250	67	<1
Herrera 1996	3/12/96 - 4/7/96	TP-11W	2.3	Lead	4	250	1,300	<1
Herrera 1997a	11/22/96 - 12/13/96	SB-21	10.0 - 12	Lead	4	250		<1
Herrera 1996	3/12/96 - 4/7/96	TP-12	2.5	Lead	4	250	67	<1
Herrera 1996	3/12/96 - 4/7/96	TP-13	3	Lead	4	250	67	<1
Herrera 1996	3/12/96 - 4/7/96	TP-9	3	Lead	4	250	67	<1
Herrera 1997a	11/22/96 - 12/13/96	SB-26	1.5 - 2.5	Lead	4 J	250	67	<1
Herrera 1997a	11/22/96 - 12/13/96	SB-26	2.5 - 3.5	Lead	3 J	250	67	<1
Herrera 1996	3/12/96 - 4/7/96	TP-15	1	Lead	3	250	1,300	<1
Herrera 1996	3/12/96 - 4/7/96	TP-14	1.0 - 4	Lead	3	250	1,300	<1
Herrera 1996	3/12/96 - 4/7/96	MW-6	10 - 11.5	Lead	3	250	67	<1
Herrera 1996	3/12/96 - 4/7/96	SB-2	10 - 11.5	Lead	3	250	67	<1
Herrera 1996	3/12/96 - 4/7/96	SB-3	10 - 11.5	Lead	3	250	67	<1
Herrera 1996	3/12/96 - 4/7/96	SB-2	5 - 6.5	Lead	3	250	67	<1
Herrera 1996	3/12/96 - 4/7/96	SB-3	5 - 6.5	Lead	3	250	67	<1
Herrera 1996	3/12/96 - 4/7/96	SS-05	0 - 1	Mercury	219	2	0.59	371
Shannon & Wilson 2001	5/3/1999	146		Mercury	48	2	0.03	1,600
Shannon & Wilson 2001	3/25/1999	092		Mercury	41	2	0.03	1,367
Herrera 1997a	11/22/96 - 12/13/96	TP-31	2.0	Mercury	31	2	0.59	53
Shannon & Wilson 2001	3/25/1999	089		Mercury	28	2	0.03	933
Shannon & Wilson 2001	3/25/1999	094		Mercury	24	2	0.03	800
Shannon & Wilson 2001	4/15/1999	120		Mercury	16	2	0.03	533
Shannon & Wilson 2001	3/25/1999	093		Mercury	15	2	0.03	500
Shannon & Wilson 2001	5/3/1999	145		Mercury	11	2	0.03	367
Herrera 1996	3/12/96 - 4/7/96	SS-06	0 - 1	Mercury	8	2	0.59	14
Shannon & Wilson 2001	3/25/1999	088		Mercury	7.1	2	0.03	237
Shannon & Wilson 2001	5/3/1999	147		Mercury	5.5	2	0.03	183
Herrera 1997a	11/22/96 - 12/13/96	TP-38	1.5	Mercury	4.8	2	0.59	8.1
Herrera 1997a	11/22/96 - 12/13/96	TP-26	2.0 - 4.0	Mercury	3.3	2	0.03	110
Shannon & Wilson 2001	4/13/1999	115		Mercury	3.0	2	0.03	100
Shannon & Wilson 2001	4/13/1999	116		Mercury	2.9	2	0.03	97

Table F-10
Chemicals Detected in Soil Samples
Seaboard Lumber

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
Shannon & Wilson 2001	4/15/1999	121		Mercury	1.7	2	0.03	57
Shannon & Wilson 2001	5/3/1999	148		Mercury	1.5	2	0.03	50
Herrera 1996	3/12/96 - 4/7/96	MW-5	5 - 6.5	Mercury	1.45	2	0.03	48
Herrera 1997a	11/22/96 - 12/13/96	TP-34	0 - 1.0	Mercury	1.29	2	0.59	2.2
Herrera 1997a	11/22/96 - 12/13/96	TP-26	0.5 - 2.0	Mercury	1.09	2	0.59	1.8
Herrera 1997a	11/22/96 - 12/13/96	TP-31	3.0	Mercury	1.02	2	0.03	34
Herrera 1997a	11/22/96 - 12/13/96	TP-26	0 - 0.5	Mercury	0.88	2	0.59	1.5
Herrera 1997a	11/22/96 - 12/13/96	TP-34	1.0	Mercury	0.69	2	0.59	1.2
Herrera 1997a	11/22/96 - 12/13/96	SB-4	Surface	Mercury	0.63	2	0.59	1.1
Herrera 1997a	11/22/96 - 12/13/96	TP-37	1.0	Mercury	0.42	2	0.59	<1
Shannon & Wilson 2001	6/7/1999	192		Mercury	0.34	2	0.03	11
Shannon & Wilson 2001	3/24/1999	086		Mercury	0.33	2	0.03	11
Herrera 1996	3/12/96 - 4/7/96	SB-2	5 - 6.5	Mercury	0.32	2	0.03	11
Herrera 1997a	11/22/96 - 12/13/96	TP-35	1.0	Mercury	0.31	2	0.59	<1
Herrera 1997a	11/22/96 - 12/13/96	TP-25	2.5	Mercury	0.31	2	0.03	10
Herrera 1997a	11/22/96 - 12/13/96	SB-7	2.5 - 4.5	Mercury	0.3	2	0.03	10
Herrera 1996	3/12/96 - 4/7/96	SB-3	5 - 6.5	Mercury	0.3	2	0.03	10
Herrera 1997a	11/22/96 - 12/13/96	TP-36	0.5 - 0.75	Mercury	0.28	2	0.59	<1
Herrera 1997a	11/22/96 - 12/13/96	TP-25	0 - 0.2	Mercury	0.27	2	0.59	<1
Herrera 1997a	11/22/96 - 12/13/96	TP-27	1.3 - 1.7	Mercury	0.26	2	0.59	<1
Herrera 1997a	11/22/96 - 12/13/96	TP-36	0 - 0.25	Mercury	0.23	2	0.59	<1
Herrera 1997a	11/22/96 - 12/13/96	TP-28	0.2 - 1.3	Mercury	0.23	2	0.59	<1
Herrera 1997a	11/22/96 - 12/13/96	TP-28	1.3 - 1.7	Mercury	0.2	2	0.59	<1
Herrera 1997a	11/22/96 - 12/13/96	TP-24	0 - 0.2	Mercury	0.19	2	0.59	<1
Herrera 1997a	11/22/96 - 12/13/96	TP-32	3.0	Mercury	0.19	2	0.03	6.3
Herrera 1997a	11/22/96 - 12/13/96	TP-29	1.0	Mercury	0.18	2	0.59	<1
Herrera 1997a	11/22/96 - 12/13/96	SB-17	2.5 - 4.5	Mercury	0.17	2	0.03	5.7
Herrera 1997a	11/22/96 - 12/13/96	TP-33	1.5	Mercury	0.14	2	0.59	<1
Herrera 1997a	11/22/96 - 12/13/96	SB-21	0.5	Mercury	0.11	2		<1
Herrera 1996	3/12/96 - 4/7/96	MW-5	7.5 - 9	Mercury	0.11	2	0.03	3.7
Herrera 1997a	11/22/96 - 12/13/96	SB-20	seawall 3 - 4	Mercury	0.11	2		<1
Herrera 1996	3/12/96 - 4/7/96	MW-6	5 - 6.5	Mercury	0.1	2	0.03	3.3
Herrera 1997a	11/22/96 - 12/13/96	TP-38	0 - 1.5	Mercury	0.09	2	0.59	<1
Herrera 1996	3/12/96 - 4/7/96	SB-1	5 - 6.5	Mercury	0.09	2	0.03	3.0
Herrera 1997a	11/22/96 - 12/13/96	SB-17	0.5 - 2.5	Mercury	0.08	2	0.03	2.7
Herrera 1997a	11/22/96 - 12/13/96	TP-27	0 - 1.3	Mercury	0.08	2	0.59	<1

Table F-10
Chemicals Detected in Soil Samples
Seaboard Lumber

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
Herrera 1996	3/12/96 - 4/7/96	MW-5	2.5 - 4	Mercury	0.08	2	0.03	2.7
Herrera 1997a	11/22/96 - 12/13/96	SB-16	1	Mercury	0.07	2	0.59	<1
Herrera 1997a	11/22/96 - 12/13/96	TP-32	1.5	Mercury	0.07	2	0.59	<1
Herrera 1996	3/12/96 - 4/7/96	SB-2	10 - 11.5	Mercury	0.07	2	0.03	2.3
Herrera 1996	3/12/96 - 4/7/96	TP-10	2.5	Mercury	0.06	2	0.03	2.0
Herrera 1997a	11/22/96 - 12/13/96	SB-18	7.5 - 9.5	Mercury	0.05	2	0.03	1.7
Herrera 1997a	11/22/96 - 12/13/96	SB-19	5	Mercury	0.05	2		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-19	1.5 - 2.5	Mercury	0.05	2		<1
ESL 1992	8/25/1992	MW2-1		Naphthalene	0.057 J	5	0.2	<1
ESL 1992	8/26/1992	SB4-3		Nickel	23			
ESL 1992	8/26/1992	SB4-2		Nickel	20			
ESL 1992	8/26/1992	MW4-1		Nickel	16			
ESL 1992	8/27/1992	920827-2		Nickel	13			
ESL 1992	8/26/1992	SB5-3		Nickel	13			
ESL 1992	8/26/1992	SB5-1		Nickel	12			
ESL 1992	8/25/1992	SB1-2		Nickel	11			
ESL 1992	8/25/1992	SB1-2Dup		Nickel	11 D			
ESL 1992	8/26/1992	SB7-1		Nickel	8			
ESL 1992	8/26/1992	MW5-3		Nickel	7			
ESL 1992	8/26/1992	MW6-3		Nickel	6			
ESL 1992	8/25/1992	MW2-2		Nickel	5			
ESL 1992	8/25/1992	MW3-1		Nickel	5			
Herrera 1997a	11/22/96 - 12/13/96	SB-9	12.5 - 14.5	PCBs, total	0.27 J	0.5	0.065	4.2
Herrera 1997a	11/22/96 - 12/13/96	SB-4	Surface	PCBs, total	0.186 J	0.5	1.3	<1
Herrera 1997a	11/22/96 - 12/13/96	SB-8	7.5 - 9.5	PCBs, total	0.17 J	0.5	0.065	2.6
Herrera 1997a	11/22/96 - 12/13/96	SB-7	2.5 - 4.5	PCBs, total	0.066 J	0.5	0.065	1.0
Herrera 1996	3/12/96 - 4/7/96	SS-05	0 - 1	Pentachlorophenol	370	2.5	0.73	507
Herrera 1997a	11/22/96 - 12/13/96	TP-32	3.0	Pentachlorophenol	110	2.5	0.037	2,973
Shannon & Wilson 2001	3/25/1999	094		Pentachlorophenol	11.0	2.5	0.037	297
ESL 1992	8/27/1992	920827-2		Pentachlorophenol	5.8 J	2.5	0.037	157
Herrera 1997a	11/22/96 - 12/13/96	TP-31	2.0	Pentachlorophenol	3.7	2.5	0.73	5.1
Herrera 1996	3/12/96 - 4/7/96	SS-06	0 - 1	Pentachlorophenol	2.2	2.5	0.73	3.0
Shannon & Wilson 2001	3/25/1999	088		Pentachlorophenol	2.0	2.5	0.037	54
Shannon & Wilson 2001	5/3/1999	146		Pentachlorophenol	1.2	2.5	0.037	32
Shannon & Wilson 2001	4/15/1999	120		Pentachlorophenol	1.1	2.5	0.037	30
Shannon & Wilson 2001	5/3/1999	147		Pentachlorophenol	0.72	2.5	0.037	19

Table F-10
Chemicals Detected in Soil Samples
Seaboard Lumber

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
Shannon & Wilson 2001	4/15/1999	121		Pentachlorophenol	0.60	2.5	0.037	16
Herrera 1997a	11/22/96 - 12/13/96	TP-31	3.0	Pentachlorophenol	0.27	2.5	0.037	7.3
Herrera 1996	3/12/96 - 4/7/96	SB-3	5 - 6.5	Pentachlorophenol	0.16	2.5	0.037	4.3
Herrera 1997a	11/22/96 - 12/13/96	TP-37	1.0	Pentachlorophenol	0.15	2.5	0.73	<1
Herrera 1997a	11/22/96 - 12/13/96	TP-26	0 - 0.5	Pentachlorophenol	0.15	2.5	0.73	<1
Herrera 1996	3/12/96 - 4/7/96	SB-3	10 - 11.5	Pentachlorophenol	0.15	2.5	0.037	4.1
Herrera 1996	3/12/96 - 4/7/96	SB-2	10 - 11.5	Pentachlorophenol	0.1	2.5	0.037	2.7
Herrera 1996	3/12/96 - 4/7/96	MW-6	5 - 6.5	Pentachlorophenol	0.1	2.5	0.037	2.7
Herrera 1996	3/12/96 - 4/7/96	MW-6	10 - 11.5	Pentachlorophenol	0.095	2.5	0.037	2.6
Herrera 1996	3/12/96 - 4/7/96	SB-2	5 - 6.5	Pentachlorophenol	0.062	2.5	0.037	1.7
Herrera 1997a	11/22/96 - 12/13/96	TP-36	2.0	Pentachlorophenol	0.021	2.5	0.73	<1
Herrera 1997a	11/22/96 - 12/13/96	TP-34	1.0	Pentachlorophenol	0.02	2.5	0.73	<1
Herrera 1997a	11/22/96 - 12/13/96	TP-36	0 - 0.25	Pentachlorophenol	0.019	2.5	0.73	<1
Herrera 1997a	11/22/96 - 12/13/96	TP-34	0 - 1.0	Pentachlorophenol	0.016	2.5	0.73	<1
Herrera 1996	3/12/96 - 4/7/96	SB-1	10 - 11.5	Pentachlorophenol	0.016	2.5	0.037	<1
Herrera 1997a	11/22/96 - 12/13/96	TP-27	0 - 1.3	Pentachlorophenol	0.013	2.5	0.73	<1
Herrera 1997a	11/22/96 - 12/13/96	TP-35	1.0	Pentachlorophenol	0.012	2.5	0.73	<1
Herrera 1997a	11/22/96 - 12/13/96	TP-36	0.5 - 0.75	Pentachlorophenol	0.011	2.5	0.73	<1
Herrera 1997a	11/22/96 - 12/13/96	TP-26	2.0 - 4.0	Pentachlorophenol	0.011	2.5	0.037	<1
Herrera 1996	3/12/96 - 4/7/96	SB-1	5 - 6.5	Pentachlorophenol	0.0084	2.5	0.037	<1
Herrera 1997a	11/22/96 - 12/13/96	TP-38	0 - 1.5	Pentachlorophenol	0.0064 J	2.5	0.73	<1
Herrera 1997a	11/22/96 - 12/13/96	TP-24	0 - 0.2	Pentachlorophenol	0.0046 J	2.5	0.73	<1
Herrera 1997a	11/22/96 - 12/13/96	TP-33	3.0	Pentachlorophenol	0.0041 J	2.5	0.037	<1
Herrera 1997a	11/22/96 - 12/13/96	SB-7	2.5 - 4.5	Phenanthrene	0.96 J		0.49	2.0
ESL 1992	8/25/1992	MW2-1		Phenanthrene	0.50		0.49	1.0
Herrera 1996	3/12/96 - 4/7/96	TP-10	2.5	Phenanthrene	0.12		0.49	<1
ESL 1992	8/25/1992	MW1-1		Phenanthrene	0.063 J		0.49	<1
Herrera 1997a	11/22/96 - 12/13/96	SB-7	2.5 - 4.5	Pyrene	780 J	2,400	1.4	557
ESL 1992	8/27/1992	920827-2		Pyrene	0.91 J	2,400	1.4	<1
Herrera 1997a	11/22/96 - 12/13/96	SB-4	Surface	Pyrene	0.64	2,400	28	<1
ESL 1992	8/25/1992	MW2-1		Pyrene	0.46	2,400	1.4	<1
Herrera 1996	3/12/96 - 4/7/96	TP-12	2.5	Pyrene	0.36	2,400	1.4	<1
Herrera 1997a	11/22/96 - 12/13/96	SB-8	7.5 - 9.5	Pyrene	0.33 J	2,400	1.4	<1
ESL 1992	8/25/1992	MW1-1		Pyrene	0.20	2,400	1.4	<1
Herrera 1996	3/12/96 - 4/7/96	TP-11E	0.8 - 3.5	Selenium	8	400		<1
Herrera 1996	3/12/96 - 4/7/96	MW-5	7.5 - 9	Silver	3	400	0.61	4.9

Table F-10
Chemicals Detected in Soil Samples
Seaboard Lumber

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
Herrera 1996	3/12/96 - 4/7/96	MW-5	2.5 - 4	Silver	2	400	0.61	3.3
Herrera 1996	3/12/96 - 4/7/96	MW-5	5 - 6.5	Silver	2	400	0.61	3.3
Herrera 1996	3/12/96 - 4/7/96	SB-1	10 - 11.5	Silver	0.5	400	0.61	<1
Herrera 1996	3/12/96 - 4/7/96	SB-2	10 - 11.5	Silver	0.5	400	0.61	<1
Herrera 1996	3/12/96 - 4/7/96	SB-3	10 - 11.5	Silver	0.5	400	0.61	<1
Herrera 1996	3/12/96 - 4/7/96	MW-4	5 - 6.5	Silver	0.5	400	0.61	<1
Herrera 1996	3/12/96 - 4/7/96	MW-5	0 - 1.5	Silver	0.4	400	12	<1
Herrera 1996	3/12/96 - 4/7/96	MW-4	2.5 - 4	Silver	0.4	400	0.61	<1
Herrera 1996	3/12/96 - 4/7/96	SB-1	5 - 6.5	Silver	0.4	400	0.61	<1
Herrera 1996	3/12/96 - 4/7/96	SB-2	5 - 6.5	Silver	0.4	400	0.61	<1
Herrera 1996	3/12/96 - 4/7/96	SB-3	5 - 6.5	Silver	0.4	400	0.61	<1
Herrera 1997a	11/22/96 - 12/13/96	SB-11	4.0 - 6	Toluene	0.27 J	7		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-10	3 - 3.5	Toluene	0.14 J	7		<1
Herrera 1997a	11/22/96 - 12/13/96	SB-11	2.0 - 4	Toluene	0.099 J	7		<1
ESL 1992	8/27/1992	920827-3		Toluene	0.018 G	7		<1
ESL 1992	8/27/1992	920827-2		Toluene	0.0049 G	7		<1
ESL 1992	8/25/1992	MW3-2		Toluene	0.0046 G	7		<1
ESL 1992	8/27/1992	920827-1		Toluene	0.0039 G	7		<1
ESL 1992	8/26/1992	MW5-2Dup		Toluene	0.0029 DGJ	7		<1
ESL 1992	8/26/1992	MW5-2		Toluene	0.0028 GJ	7		<1
ESL 1992	8/25/1992	SB1-1		Toluene	0.0028 G	7		<1
ESL 1992	8/25/1992	SB3-2		Toluene	0.0025 GJ	7		<1
ESL 1992	8/25/1992	SB3-1		Toluene	0.0023 GJ	7		<1
ESL 1992	8/25/1992	MW3-3		Toluene	0.0022 GJ	7		<1
ESL 1992	8/25/1992	SB1-2		Toluene	0.0022 GJ	7		<1
ESL 1992	8/26/1992	SB5-2		Toluene	0.0022 GJ	7		<1
ESL 1992	8/26/1992	SB4-2		Toluene	0.002 GJ	7		<1
ESL 1992	8/26/1992	MW4-2		Toluene	0.0019 GJ	7		<1
ESL 1992	8/26/1992	MW4-3		Toluene	0.0019 GJ	7		<1
ESL 1992	8/26/1992	SB4-1		Toluene	0.0019 GJ	7		<1
ESL 1992	8/26/1992	MW6-2		Toluene	0.0018 GJ	7		<1
ESL 1992	8/26/1992	MW5-1		Toluene	0.0017 GJ	7		<1
ESL 1992	8/26/1992	SB5-1		Toluene	0.0017 GJ	7		<1
ESL 1992	8/26/1992	SB7-2		Toluene	0.0017 GJ	7		<1
ESL 1992	8/25/1992	SB1-3Dup		Toluene	0.0016 DGJ	7		<1
ESL 1992	8/25/1992	SB2-1		Toluene	0.0016 GJ	7		<1

Table F-10
Chemicals Detected in Soil Samples
Seaboard Lumber

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
ESL 1992	8/26/1992	SB6-2		Toluene	0.0016 GJ	7		<1
ESL 1992	8/26/1992	MW6-1		Toluene	0.0015 GJ	7		<1
ESL 1992	8/25/1992	SB7-2Dup		Toluene	0.0014 DGJ	7		<1
ESL 1992	8/26/1992	SB4-3		Toluene	0.0013 GJ	7		<1
ESL 1992	8/25/1992	SB2-2		Toluene	0.0011 GJ	7		<1
ESL 1992	8/26/1992	SB7-1		Toluene	0.0011 GJ	7		<1
ESL 1992	8/26/1992	SB6-1		Toluene	0.00093 GJ	7		<1
ESL 1992	8/25/1992	SB1-3		Toluene	0.00079 GJ	7		<1
ESL 1992	8/26/1992	MW5-3		Toluene	0.00078 GJ	7		<1
ESL 1992	8/25/1992	SB2-3		Toluene	0.00064 GJ	7		<1
ESL 1992	8/25/1992	MW3-1		Toluene	0.00059 GJ	7		<1
Herrera 1996	3/12/96 - 4/7/96	TP-2	0.5	Total petroleum hydrocarbons	29,000	2,000		15
ESL 1992	8/27/1992	920827-3		Total petroleum hydrocarbons	25,000	2,000		13
ESL 1992	8/27/1992	920827-2		Total petroleum hydrocarbons	13,000	2,000		6.5
ESL 1992	8/27/1992	920827-1		Total petroleum hydrocarbons	7,900	2,000		4.0
Herrera 1996	3/12/96 - 4/7/96	TP-3	3.5	Total petroleum hydrocarbons	7,000	2,000		3.5
ESL 1992	8/26/1992	MW4-1		Total petroleum hydrocarbons	6,000	2,000		3.0
Herrera 1996	3/12/96 - 4/7/96	TP-1	3.5	Total petroleum hydrocarbons	5,700	2,000		2.9
Herrera 1996	3/12/96 - 4/7/96	SS-02A	0 - 1	Total petroleum hydrocarbons	4,700	2,000		2.4
Herrera 1996	3/12/96 - 4/7/96	TP-2	3.5	Total petroleum hydrocarbons	4,400	2,000		2.2
Herrera 1996	3/12/96 - 4/7/96	MW-1	1.5 - 3	Total petroleum hydrocarbons	2,900	2,000		1.5
Herrera 1996	3/12/96 - 4/7/96	TP-7	0.6 - 0.8	Total petroleum hydrocarbons	2,200	2,000		1.1
Herrera 1996	3/12/96 - 4/7/96	TP-8	1 - 1.2	Total petroleum hydrocarbons	1,900	2,000		<1
ESL 1992	8/25/1992	MW1-1		Total petroleum hydrocarbons	1,500	2,000		<1
ESL 1992	8/25/1992	MW1-2		Total petroleum hydrocarbons	1,100	2,000		<1
Herrera 1996	3/12/96 - 4/7/96	TP-4	3.5	Total petroleum hydrocarbons	980 J	2,000		<1
ESL 1992	8/26/1992	SB5-1		Total petroleum hydrocarbons	570	2,000		<1
Herrera 1996	3/12/96 - 4/7/96	SS-02C	0 - 1	Total petroleum hydrocarbons	510	2,000		<1
ESL 1992	8/26/1992	MW4-2		Total petroleum hydrocarbons	510	2,000		<1
ESL 1992	8/25/1992	MW3-2		Total petroleum hydrocarbons	470	2,000		<1
Herrera 1996	3/12/96 - 4/7/96	TP-8	1.7 - 2.2	Total petroleum hydrocarbons	420	2,000		<1
Herrera 1996	3/12/96 - 4/7/96	TP-12	0.7	Total petroleum hydrocarbons	360	2,000		<1
Herrera 1996	3/12/96 - 4/7/96	TP-7	1.3 - 1.7	Total petroleum hydrocarbons	250	2,000		<1
ESL 1992	11/22/96 - 12/13/96	Tank 3 S-2		Total petroleum hydrocarbons	200	2,000		<1
Herrera 1996	3/12/96 - 4/7/96	MW-1	5 - 6.5	Total petroleum hydrocarbons	190	2,000		<1
Herrera 1996	3/12/96 - 4/7/96	SS-02B	0 - 1	Total petroleum hydrocarbons	170	2,000		<1

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Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
Herrera 1996	3/12/96 - 4/7/96	SS-02D	0 - 1	Total petroleum hydrocarbons	130	2,000		<1
Herrera 1996	3/12/96 - 4/7/96	SS-01	0 - 1	Total petroleum hydrocarbons	110	2,000		<1
Herrera 1996	3/12/96 - 4/7/96	MW-3	0 - 6.5	Total petroleum hydrocarbons	110	2,000		<1
ESL 1992	8/25/1992	MW3-3		Total petroleum hydrocarbons	110	2,000		<1
ESL 1992	8/25/1992	SB3-2		Total petroleum hydrocarbons	110	2,000		<1
ESL 1992	11/22/96 - 12/13/96	Tank 3 S-3		Total petroleum hydrocarbons	110	2,000		<1
ESL 1992	8/25/1992	SB2-1		Total petroleum hydrocarbons	44	2,000		<1
ESL 1992	11/22/96 - 12/13/96	Tank 1 S-2		Total petroleum hydrocarbons	44	2,000		<1
ESL 1992	11/22/96 - 12/13/96	Tank 2 S-1		Total petroleum hydrocarbons	43	2,000		<1
ESL 1992	11/22/96 - 12/13/96	Tank 3 S-1		Total petroleum hydrocarbons	43	2,000		<1
ESL 1992	8/25/1992	SB3-1		Total petroleum hydrocarbons	39	2,000		<1
ESL 1992	8/25/1992	SB7-2Dup		Total petroleum hydrocarbons	39 D	2,000		<1
ESL 1992	8/25/1992	SB1-3		Total petroleum hydrocarbons	23	2,000		<1
ESL 1992	11/22/96 - 12/13/96	Tank 2 S-3		Total petroleum hydrocarbons	22	2,000		<1
ESL 1992	11/22/96 - 12/13/96	Tank 1 S-1		Total petroleum hydrocarbons	20	2,000		<1
ESL 1992	11/22/96 - 12/13/96	Tank 1 S-3		Total petroleum hydrocarbons	20	2,000		<1
Herrera 1996	3/12/96 - 4/7/96	MW-1	3 - 4.5	Total petroleum hydrocarbons	17	2,000		<1
ESL 1992	8/25/1992	SB2-2		Xylenes, m- & p-	0.0073 J	9		<1
ESL 1992	8/27/1992	920827-3		Xylenes, m- & p-	0.007 G	9		<1
ESL 1992	8/26/1992	MW4-1		Xylenes, m- & p-	0.0059	9		<1
ESL 1992	8/25/1992	MW3-2		Xylenes, m- & p-	0.0049	9		<1
ESL 1992	8/27/1992	920827-2		Xylenes, m- & p-	0.0035 G	9		<1
ESL 1992	8/25/1992	MW3-3		Xylenes, m- & p-	0.0031	9		<1
ESL 1992	8/27/1992	920827-1		Xylenes, m- & p-	0.0029 G	9		<1
ESL 1992	8/26/1992	MW4-2		Xylenes, m- & p-	0.0027	9		<1
ESL 1992	8/26/1992	MW5-2Dup		Xylenes, m- & p-	0.0021 DGJ	9		<1
ESL 1992	8/26/1992	MW6-2		Xylenes, m- & p-	0.002 GJ	9		<1
ESL 1992	8/26/1992	MW6-1		Xylenes, m- & p-	0.0019 GJ	9		<1
ESL 1992	8/26/1992	SB4-1		Xylenes, m- & p-	0.0013 GJ	9		<1
ESL 1992	8/26/1992	SB7-2		Xylenes, m- & p-	0.0013 GJ	9		<1
ESL 1992	8/26/1992	MW5-2		Xylenes, m- & p-	0.0012 J	9		<1
ESL 1992	8/25/1992	SB3-2		Xylenes, m- & p-	0.0012 GJ	9		<1
ESL 1992	8/25/1992	SB7-2Dup		Xylenes, m- & p-	0.00088 DJ	9		<1
ESL 1992	8/26/1992	SB4-3		Xylenes, m- & p-	0.00084 GJ	9		<1
ESL 1992	8/26/1992	SB4-2		Xylenes, m- & p-	0.00082 GJ	9		<1
ESL 1992	8/26/1992	SB5-2		Xylenes, m- & p-	0.00067 GJ	9		<1

Table F-10
Chemicals Detected in Soil Samples
Seaboard Lumber

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
ESL 1992	8/25/1992	SB1-3Dup		Xylenes, m- & p-	0.00063 DJ	9		<1
ESL 1992	8/26/1992	MW4-3		Xylenes, m- & p-	0.00053 J	9		<1
ESL 1992	8/25/1992	MW3-1		Xylenes, m- & p-	0.00046 J	9		<1
ESL 1992	8/26/1992	MW4-1		Xylenes, o-	0.19	9		<1
ESL 1992	8/27/1992	920827-3		Xylenes, o-	0.020	9		<1
ESL 1992	8/26/1992	MW4-2		Xylenes, o-	0.0045	9		<1
ESL 1992	8/25/1992	MW3-2		Xylenes, o-	0.0032	9		<1
ESL 1992	8/27/1992	920827-2		Xylenes, o-	0.0027	9		<1
ESL 1992	8/27/1992	920827-1		Xylenes, o-	0.0023	9		<1
ESL 1992	8/25/1992	MW3-3		Xylenes, o-	0.0023 J	9		<1
ESL 1992	8/25/1992	SB7-2Dup		Xylenes, o-	0.0012 DJ	9		<1
ESL 1992	8/26/1992	MW6-1		Xylenes, o-	0.0011 J	9		<1
ESL 1992	8/26/1992	MW5-2Dup		Xylenes, o-	0.00093 DJ	9		<1
ESL 1992	8/26/1992	SB4-1		Xylenes, o-	0.00077 J	9		<1
ESL 1992	8/26/1992	SB7-2		Xylenes, o-	0.00039 J	9		<1
ESL 1992	8/26/1992	MW4-1		Xylenes, total	0.19	9		<1
ESL 1992	8/27/1992	920827-3		Xylenes, total	0.027 G	9		<1
ESL 1992	8/25/1992	MW3-2		Xylenes, total	0.0082	9		<1
ESL 1992	8/25/1992	SB2-2		Xylenes, total	0.0073 J	9		<1
ESL 1992	8/26/1992	MW4-2		Xylenes, total	0.0072	9		<1
ESL 1992	8/27/1992	920827-2		Xylenes, total	0.0062 G	9		<1
ESL 1992	8/25/1992	MW3-3		Xylenes, total	0.0054	9		<1
ESL 1992	8/27/1992	920827-1		Xylenes, total	0.0052 G	9		<1
ESL 1992	8/26/1992	MW5-2Dup		Xylenes, total	0.003 DGJ	9		<1
ESL 1992	8/26/1992	SB4-3		Xylenes, total	0.0023 GJ	9		<1
ESL 1992	8/25/1992	SB7-2Dup		Xylenes, total	0.0021 DJ	9		<1
ESL 1992	8/26/1992	MW6-2		Xylenes, total	0.002 GJ	9		<1
ESL 1992	8/26/1992	SB4-1		Xylenes, total	0.002 GJ	9		<1
ESL 1992	8/26/1992	MW6-1		Xylenes, total	0.0019 G	9		<1
ESL 1992	8/26/1992	SB7-2		Xylenes, total	0.0016 J	9		<1
ESL 1992	8/26/1992	MW5-2		Xylenes, total	0.0012 J	9		<1
ESL 1992	8/25/1992	SB3-2		Xylenes, total	0.0012 GJ	9		<1
ESL 1992	8/26/1992	SB4-2		Xylenes, total	0.00082 GJ	9		<1
ESL 1992	8/26/1992	SB5-2		Xylenes, total	0.00067 GJ	9		<1
ESL 1992	8/25/1992	SB1-3Dup		Xylenes, total	0.00063 DJ	9		<1
ESL 1992	8/26/1992	MW4-3		Xylenes, total	0.00053 J	9		<1

Table F-10
Chemicals Detected in Soil Samples
Seaboard Lumber

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
ESL 1992	8/25/1992	MW3-1		Xylenes, total	0.00046 J	9		<1
ESL 1992	8/27/1992	920827-2		Zinc	71	24,000	38	1.9
ESL 1992	8/26/1992	MW4-1		Zinc	60	24,000	38	1.6
ESL 1992	8/26/1992	SB5-1		Zinc	52	24,000	38	1.4
ESL 1992	8/25/1992	MW3-1		Zinc	50	24,000	38	1.3
ESL 1992	8/26/1992	SB5-3		Zinc	40	24,000	38	1.1
ESL 1992	8/26/1992	SB7-1		Zinc	37	24,000	38	<1
ESL 1992	8/25/1992	MW2-2		Zinc	36	24,000	38	<1
ESL 1992	8/25/1992	SB1-2Dup		Zinc	34 D	24,000	38	<1
ESL 1992	8/26/1992	MW5-3		Zinc	26	24,000	38	<1
ESL 1992	8/26/1992	SB4-3		Zinc	26	24,000	38	<1
ESL 1992	8/26/1992	MW6-3		Zinc	25	24,000	38	<1
ESL 1992	8/26/1992	SB4-2		Zinc	25	24,000	38	<1

ft bgs - Feet below ground surface
mg/kg - Milligrams per kilogram
MTCA - Model Toxics Control Act
CSL - Cleanup Screening Level from Washington Sediment Management Standards
D - Duplicate sample
F - Results is from the analysis of a diluted sample.
G - Possible blank contamination
J - Estimated value

a - The lower of MTCA Method A or B cleanup levels was selected, from CLARC database.
b - Based on CSL. Where two screening levels are listed for a single chemical, the higher screening levels are for soil samples collected from the vadose zone and the lower screening levels are for soil samples collected from the saturated zone (SAIC 2006).
Depth to groundwater was observed between 2.5 and 6.5 ft bgs.
Table presents detected chemicals only.
Exceedance factors are the ratio of the detected concentration to the MTCA Cleanup Level or Soil-to-Sediment Screening Level, whichever is lower.
Chemicals and samples with exceedance factors greater than 1 are shaded light yellow.

Table F-11
Chemicals Detected in Groundwater Samples
Seaboard Lumber

Source	Sample Date	Sample Location	Chemical	GW Conc'n (ug/L)	MTCA Cleanup Level[a] (ug/L)	GW-to-Sediment Screening Level[b] (ug/L)	Exceedance Factor
ESL 1992	8/31/1992	MW1A	1,2-Dichloropropane	0.36 J			
ESL 1992	8/31/1992	MW5A	2,4-Dimethylphenol	1	160	2	<1
Herrera 1997a	11/22/96 - 12/13/96	MW-6R	Acenaphthene	2.4 J	960	9.3	<1
ESL 1992	8/31/1992	MW5A	Acenaphthene	2	960	9.3	<1
Herrera 1997a	11/22/96 - 12/13/96	MW-2	Arsenic	6	0.0583	370	103
Herrera 1997a	11/22/96 - 12/13/96	MW-6R	Arsenic	3	0.0583	370	51
Herrera 1997a	11/22/96 - 12/13/96	MW-8	Arsenic	1	0.0583	370	17
ESL 1992	9/2/1992	MW6B	Benzoic acid	4 J	64,000	2,200	<1
ESL 1992	8/31/1992	MW4A	Benzoic acid	2 J	64,000	2,200	<1
ESL 1992	9/2/1992	MW6B	bis(2-Ethylhexyl)phthalate	7 G	6.25	6.8	1.1
ESL 1992	8/31/1992	MW1A	bis(2-Ethylhexyl)phthalate	2 G	6.25	6.8	<1
ESL 1992	8/31/1992	MW3A	bis(2-Ethylhexyl)phthalate	2 G	6.25	6.8	<1
ESL 1992	8/31/1992	MW2A	bis(2-Ethylhexyl)phthalate	1 G	6.25	6.8	<1
ESL 1992	8/31/1992	MW4A	bis(2-Ethylhexyl)phthalate	1 G	6.25	6.8	<1
ESL 1992	8/31/1992	MW5A	bis(2-Ethylhexyl)phthalate	1 G	6.25	6.8	<1
ESL 1992	8/31/1992	MW6A	bis(2-Ethylhexyl)phthalate	1 G	6.25	6.8	<1
Herrera 1996	3/12/96 - 4/7/96	MW-8 Dup of MW-4	Diesel-range hydrocarbons	11,000	500		22
Health Risk 1999	5/3/1999	SEBD T 135	Diesel-range hydrocarbons	1,000	500		2
Herrera 1996	3/12/96 - 4/7/96	MW-2	Diesel-range hydrocarbons	610	500		1.2
Herrera 1996	3/12/96 - 4/7/96	MW-7	Diesel-range hydrocarbons	260	500		<1
ESL 1992	9/2/1992	MW6B	Dimethylphthalate	4		140	<1
ESL 1992	8/31/1992	MW4A	Dimethylphthalate	3		140	<1
ESL 1992	8/31/1992	MW5A	Dimethylphthalate	2		140	<1
ESL 1992	8/31/1992	MW6A	Dimethylphthalate	1		140	<1
ESL 1992	8/31/1992	MW1A	Di-n-butylphthalate	1 G	1,600	1,200	<1
ESL 1992	8/31/1992	MW2A	Di-n-butylphthalate	1 G	1,600	1,200	<1
ESL 1992	8/31/1992	MW3A	Di-n-butylphthalate	1 G	1,600	1,200	<1
ESL 1992	8/31/1992	MW4A	Di-n-butylphthalate	1 G	1,600	1,200	<1
ESL 1992	8/31/1992	MW5A	Di-n-butylphthalate	1 G	1,600	1,200	<1
ESL 1992	8/31/1992	MW6A	Di-n-butylphthalate	1 G	1,600	1,200	<1
ESL 1992	8/31/1992	MW1A	Di-n-octylphthalate	1 G		23	<1
ESL 1992	8/31/1992	MW3A	Di-n-octylphthalate	1 G		23	<1
ESL 1992	8/31/1992	MW4A	Di-n-octylphthalate	1 G		23	<1
ESL 1992	8/31/1992	MW5A	Di-n-octylphthalate	1 G		23	<1
ESL 1992	8/31/1992	MW6A	Di-n-octylphthalate	1 G		23	<1

Table F-11
Chemicals Detected in Groundwater Samples
Seaboard Lumber

Source	Sample Date	Sample Location	Chemical	GW Conc'n (ug/L)	MTCA Cleanup Level[a] (ug/L)	GW-to-Sediment Screening Level[b] (ug/L)	Exceedance Factor
ESL 1992	9/2/1992	MW6B	Di-n-octylphthalate	1 G		23	<1
ESL 1992	8/31/1992	MW5A	Fluoranthene	1	640	17	<1
Herrera 1997a	11/22/96 - 12/13/96	MW-2	Fluorene	1.2	640	7	<1
ESL 1992	8/31/1992	MW5A	Fluorene	1	640	7	<1
Herrera 1996	3/12/96 - 4/7/96	MW-8 Dup of MW-4	Heavy Oil-range hydrocarbons	1,500	500		3
Herrera 1996	3/12/96 - 4/7/96	MW-2	Heavy Oil-range hydrocarbons	960	500		1.9
Health Risk 1999	5/3/1999	SEBD T 135	Heavy Oil-range hydrocarbons	600	500		1.2
Herrera 1997a	11/22/96 - 12/13/96	MW-6R	Heavy Oil-range hydrocarbons	510	500		1.0
ESL 1992	8/31/1992	MW5A	Naphthalene	1	160	92	<1
ESL 1992	8/31/1992	MW5A	Phenanthrene	1		23	<1
ESL 1992	8/31/1992	MW6A	Phenol	4	2,400	220	<1
ESL 1992	8/31/1992	MW5A	Pyrene	1	480	20	<1
ESL 1992	8/31/1992	MW3A	Toluene	0.38 GJ	640		<1
ESL 1992	8/31/1992	MW4A	Toluene	0.36 GJ	640		<1
ESL 1992	8/31/1992	MW2A	Toluene	0.30 GJ	640		<1
ESL 1992	8/31/1992	MW1A	Toluene	0.28 GJ	640		<1
ESL 1992	8/31/1992	MW5A	Toluene	0.27 GJ	640		<1
ESL 1992	8/31/1992	MW6A	Toluene	0.26 GJ	640		<1

GW - Groundwater
ug/L - Micrograms per liter
MTCA - Model Toxics Control Act
CSL - Cleanup Screening Level from Washington Sediment Management Standards
G - Possible blank contamination
J - Estimated value

a - The lower of MTCA Method A or B cleanup levels was selected, from CLARC database.
b - Based on CSL (SAIC 2006).
Table presents detected chemicals only.
Exceedance factors are the ratio of the detected concentration to the MTCA Cleanup Level or Groundwater-to-Sediment Screening Value, whichever is lower.
Chemicals and samples with exceedance factors greater than 1 are shaded light yellow.

Table F-12
Chemicals Detected in Surface Water Samples
Seaboard Lumber

Source	Sample Date	Sample Location	Chemical	Surface Water Conc'n (ug/L)	Marine Chronic WQS[a] (ug/L)	Marine Acute WQS[b] (ug/L)	Chronic WQS Exceedance Factor	GW-to-Sediment Screening Level[c] (ug/L)	Exceedance Factor
USACE 1995	3/15/1995	1 meter below surface	Iron	427					
USACE 1995	3/15/1995	1 meter below surface	Lead	2	8.1	210	<1	13	<1
USACE 1995	4/27/1995	1 meter below surface	Lead	1	8.1	210	<1	13	<1
USACE 1995	3/15/1995	1 meter below surface	Zinc	23	81	90	<1	76	<1
USACE 1995	4/27/1995	1 meter below surface	Zinc	7	81	90	<1	76	<1

ug/L - Microgram per liter
WQS - Water Quality Standards
GW - Groundwater
CSL - Cleanup Screening Level from Washington Sediment Management Standards

a - The lower of the ARARS for Surface Water Aquatic Life (Marine/Chronic) were selected from CLARC database
b - The lower of the ARARS for Surface Water Aquatic Life (Marine/Acute) were selected from CLARC database
c - Based on CSL (SAIC 2006).
Table presents detected chemicals only.
Exceedance factors are the ratio of the detected concentrations to the minimum screening level availbe in the WA State CLARC database, exceedance factors are shown only if they are greater than 1.

Table F-13
Chemicals Detected in Soil Samples
4101 West Marginal Way Business Park

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Exceedance Factor
Kuroiwa 2002	5/24/2001	TP-B-(2)	7.0 - 8.0	Benzene	85	0.03	2,833
Kuroiwa 2002	5/24/2001	TP-B-(1)	4.5 - 5.5	Benzene	77	0.03	2,567
Kuroiwa 2002	5/24/2001	TP-D-(2)	5.5 - 6.5	Benzene	10	0.03	333
Kuroiwa 2002	5/24/2001	TP-A-(2)	5.5 - 6.5	Benzene	8.3	0.03	277
Kuroiwa 2002	7/20/2001	WW-1	6.0 - 8.0	Benzene	3.3	0.03	110
Kuroiwa 2002	5/24/2001	TP-M-(1)	5.5 - 6.5	Benzene	3.2	0.03	107
Kuroiwa 2002	7/24/2001	BN-1	11.0 - 12.0	Benzene	1.6	0.03	53
Kuroiwa 2002	7/20/2001	WW-2	11.0 - 12.5	Benzene	1.5	0.03	50
Kuroiwa 2002	7/20/2001	WN-1	8.5 - 9.5	Benzene	0.97	0.03	32
Kuroiwa 2002	7/24/2001	B-2	13.0 - 13.5	Benzene	0.78	0.03	26
Kuroiwa 2002	7/20/2001	WW-3	11.5 - 12.5	Benzene	0.64	0.03	21
Kuroiwa 2002	7/24/2001	B-3	14.0 - 14.5	Benzene	0.31	0.03	10
Kuroiwa 2002	7/24/2001	B-3 Dupl	14.0 - 14.5	Benzene	0.31 D	0.03	10
Kuroiwa 2002	7/20/2001	BW-1	11.5 - 12.5	Benzene	0.21	0.03	7.0
Kuroiwa 2002	7/20/2001	W-E1	10.0 - 11.0	Benzene	0.19	0.03	6.3
Kuroiwa 2002	7/20/2001	B-1	11.0 - 12.0	Benzene	0.17	0.03	5.7
Kuroiwa 2002	7/20/2001	W-N2	11.0 - 12.0	Benzene	0.15	0.03	5.0
Kuroiwa 2002	7/20/2001	W-S2	10.0 - 11.0	Benzene	0.11	0.03	3.7
Kuroiwa 2002	7/24/2001	BN-2	13.0 - 13.5	Benzene	0.10	0.03	3.3
Kuroiwa 2002	7/20/2001	W-WE1	10.0 - 11.0	Benzene	0.09	0.03	3.0
Kuroiwa 2002	7/24/2001	WE-2	9.5 - 11.5	Benzene	0.08	0.03	2.7
Kuroiwa 2002	7/20/2001	BE-1	11.0 - 12.0	Benzene	0.03	0.03	1.0
Kuroiwa 2002	7/24/2001	BE-3	13.0 - 13.5	Benzene	0.03	0.03	1.0
Kuroiwa 2002	5/24/2001	TP-B-(1)	4.5 - 5.5	Ethylbenzene	102	6	17
Kuroiwa 2002	5/24/2001	TP-B-(2)	4.5 - 5.5	Ethylbenzene	85	6	14
Kuroiwa 2002	5/24/2001	TP-D-(2)	5.5 - 6.5	Ethylbenzene	58	6	9.7
Kuroiwa 2002	5/24/2001	TP-A-(2)	5.5 - 6.5	Ethylbenzene	22	6	3.7
Kuroiwa 2002	7/20/2001	WW-1	6.0 - 8.0	Ethylbenzene	17	6	2.8
Kuroiwa 2002	5/24/2001	TP-M-(1)	5.5 - 6.5	Ethylbenzene	7.1	6	1.2
Kuroiwa 2002	7/20/2001	WW-2	11.0 - 12.5	Ethylbenzene	4.4	6	<1
Kuroiwa 2002	7/20/2001	WW-3	11.5 - 12.5	Ethylbenzene	4.4	6	<1
Kuroiwa 2002	7/24/2001	WE-2	9.5 - 11.5	Ethylbenzene	2.2	6	<1
Kuroiwa 2002	7/20/2001	W-WE1	10.0 - 11.0	Ethylbenzene	1.1	6	<1
Kuroiwa 2002	7/24/2001	BN-1	11.0 - 12.0	Ethylbenzene	1.0	6	<1

Table F-13
Chemicals Detected in Soil Samples
4101 West Marginal Way Business Park

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Exceedance Factor
Kuroiwa 2002	7/24/2001	BE-2	11.0 - 12.0	Ethylbenzene	0.98	6	<1
Kuroiwa 2002	7/20/2001	BW-1	11.5 - 12.5	Ethylbenzene	0.64	6	<1
Kuroiwa 2002	7/24/2001	BN-2	13.0 - 13.5	Ethylbenzene	0.05	6	<1
Kuroiwa 2002	7/20/2001	WW-1	6.0 - 8.0	Gasoline-range hydrocarbons	530	30	18
Kuroiwa 2002	7/20/2001	WW-2	11.0 - 12.5	Gasoline-range hydrocarbons	150	30	5.0
Kuroiwa 2002	7/20/2001	WW-3	11.5 - 12.5	Gasoline-range hydrocarbons	121	30	4.0
Kuroiwa 2002	7/20/2001	WN-1	8.5 - 9.5	Gasoline-range hydrocarbons	65	30	2.2
Kuroiwa 2002	7/24/2001	BN-1	11.0 - 12.0	Gasoline-range hydrocarbons	60	30	2.0
Kuroiwa 2002	7/24/2001	BE-2	11.0 - 12.0	Gasoline-range hydrocarbons	41	30	1.4
Kuroiwa 2002	7/20/2001	W-E1	10.0 - 11.0	Gasoline-range hydrocarbons	37	30	1.2
Kuroiwa 2002	7/20/2001	W-WE1	10.0 - 11.0	Gasoline-range hydrocarbons	29	30	<1
Kuroiwa 2002	7/20/2001	W-S2	10.0 - 11.0	Gasoline-range hydrocarbons	20	30	<1
Kuroiwa 2002	5/24/2001	TP-B-(1)	4.5 - 5.5	Toluene	280	7	40
Kuroiwa 2002	5/24/2001	TP-B-(2)	7.0 - 8.0	Toluene	270	7	39
Kuroiwa 2002	5/24/2001	TP-D-(2)	5.5 - 6.5	Toluene	46	7	6.6
Kuroiwa 2002	5/24/2001	TP-A-(2)	5.5 - 6.5	Toluene	29	7	4.1
Kuroiwa 2002	5/24/2001	TP-M-(1)	5.5 - 6.5	Toluene	23	7	3.3
Kuroiwa 2002	7/20/2001	WW-1	6.0 - 8.0	Toluene	12	7	1.7
Kuroiwa 2002	7/24/2001	BN-1	11.0 - 12.0	Toluene	2.8	7	<1
Kuroiwa 2002	7/20/2001	WN-1	8.5 - 9.5	Toluene	1.14	7	<1
Kuroiwa 2002	7/20/2001	WW-3	11.5 - 12.5	Toluene	0.78	7	<1
Kuroiwa 2002	7/24/2001	WE-2	9.5 - 11.5	Toluene	0.76	7	<1
Kuroiwa 2002	7/24/2001	BE-2	11.0 - 12.0	Toluene	0.49	7	<1
Kuroiwa 2002	7/20/2001	WW-2	11.0 - 12.5	Toluene	0.39	7	<1
Kuroiwa 2002	7/20/2001	BW-1	11.5 - 12.5	Toluene	0.08	7	<1
Kuroiwa 2002	7/20/2001	W-S2	10.0 - 11.0	Toluene	0.05	7	<1

Table F-13
Chemicals Detected in Soil Samples
4101 West Marginal Way Business Park

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Exceedance Factor
Kuroiwa 2002	5/24/2001	TP-B-(1)	4.5 - 5.5	Xylenes, total	590	9	66
Kuroiwa 2002	5/24/2001	TP-B-(2)	7.0 - 8.0	Xylenes, total	460	9	51
Kuroiwa 2002	5/24/2001	TP-A-(2)	5.5 - 6.5	Xylenes, total	220	9	24
Kuroiwa 2002	5/24/2001	TP-D-(1)	3.5 - 4.5	Xylenes, total	200	9	22
Kuroiwa 2002	5/24/2001	WW-1	6.0 - 8.0	Xylenes, total	81	9	9.0
Kuroiwa 2002	5/24/2001	TP-M-(1)	5.5 - 6.5	Xylenes, total	38	9	4.2
Kuroiwa 2002	7/24/2001	BN-1	11.0 - 12.0	Xylenes, total	16	9	1.8
Kuroiwa 2002	5/24/2001	WW-2	11.0 - 12.5	Xylenes, total	13	9	1.4
Kuroiwa 2002	5/24/2001	WW-3	11.5 - 12.5	Xylenes, total	11	9	1.2
Kuroiwa 2002	7/24/2001	BE-2	11.0 - 12.0	Xylenes, total	7.2	9	<1
Kuroiwa 2002	5/24/2001	W-E1	10.0 - 11.0	Xylenes, total	6.5	9	<1
Kuroiwa 2002	7/24/2001	WE-2	9.5 - 11.5	Xylenes, total	3.6	9	<1
Kuroiwa 2002	5/24/2001	W-S2	10.0 - 11.0	Xylenes, total	2.8	9	<1
Kuroiwa 2002	5/24/2001	WN-1	8.5 - 9.5	Xylenes, total	2.5	9	<1
Kuroiwa 2002	5/24/2001	W-WE1	10.0 - 11.0	Xylenes, total	2.3	9	<1
Kuroiwa 2002	5/24/2001	BE-1	11.0 - 12.0	Xylenes, total	1.6	9	<1
Kuroiwa 2002	5/24/2001	BW-1	11.5 - 12.5	Xylenes, total	1.6	9	<1
Kuroiwa 2002	7/24/2001	B-2	13.0 - 13.5	Xylenes, total	1.4	9	<1
Kuroiwa 2002	7/24/2001	B-3	14.0 - 14.5	Xylenes, total	1.1	9	<1
Kuroiwa 2002	7/24/2001	B-3 Dupl	14.0 - 14.5	Xylenes, total	1.1 D	9	<1
Kuroiwa 2002	7/24/2001	BN-2	13.0 - 13.5	Xylenes, total	0.42	9	<1
Kuroiwa 2002	5/24/2001	B-S1	13.0	Xylenes, total	0.36	9	<1
Kuroiwa 2002	5/24/2001	TP-C-(2)	7.5 - 8.5	Xylenes, total	0.3	9	<1
Kuroiwa 2002	5/24/2001	B-1	11.0 - 12.0	Xylenes, total	0.09	9	<1

ft bgs - Feet below ground surface
mg/kg - Milligrams per kilogram
MTCA - Model Toxics Control Act
D - Duplicate sample

a - The lower of MTCA Method A or B cleanup levels was selected, from CLARC database.
Table presents detected chemicals only.
Exceedance factors are the ratio of the detected concentration to the MTCA Cleanup Level.
Chemicals and samples with exceedance factors greater than 1 are shaded light yellow.

Table F-14
Chemicals Detected in Soil Samples
Strutz Property

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
Onsite Environmental 2001	4/18/2001	SP#4	0.5 - 0.7	Barium	94	16,000		<1
Onsite Environmental 2001	4/18/2001	SP#3	0.5 - 0.7	Barium	59	16,000		<1
Onsite Environmental 2001	4/18/2001	SP#1	0.5 - 0.7	Barium	51	16,000		<1
Onsite Environmental 2001	4/18/2001	SP#2	0.5 - 0.7	Barium	43	16,000		<1
Onsite Environmental 2001	4/18/2001	SP#1	0.5 - 0.7	Chromium	26	2,000	270	<1
Onsite Environmental 2001	4/18/2001	SP#4	0.5 - 0.7	Chromium	22	2,000	270	<1
Onsite Environmental 2001	4/18/2001	SP#2	0.5 - 0.7	Chromium	19	2,000	270	<1
Onsite Environmental 2001	4/18/2001	SP#3	0.5 - 0.7	Chromium	18	2,000	270	<1
Onsite Environmental 2001	4/18/2001	SP#4	0.5 - 0.7	Hydrocarbons	850	2,000		<1
Onsite Environmental 2001	4/18/2001	SP#3	0.5 - 0.7	Hydrocarbons	200	2,000		<1
Onsite Environmental 2001	4/18/2001	SP#4	0.5 - 0.7	Lead	51	250	67	<1
Onsite Environmental 2001	4/18/2001	SP#3	0.5 - 0.7	Lead	32	250	67	<1
Onsite Environmental 2001	4/18/2001	SP#2	0.5 - 0.7	Lead	10	250	67	<1

ft bgs - Feet below ground surface
mg/kg - Milligrams per kilogram
MTCA - Model Toxics Control Act
CSL - Cleanup Screening Level from Washington Sediment Management Standards

a - The lower of MTCA Method A or B cleanup levels was selected, from CLARC database.
b - Based on CSL. Where two screening levels are listed for a single chemical, the higher screening levels are for soil samples collected from the vadose zone and the lower screening levels are for soil samples collected from the saturated zone (SAIC 2006).
Groundwater elevation data are not available for this site. The saturated CSL screening levels were assumed for all soil samples.
Table presents detected chemicals only.
Exceedance factors are the ratio of the detected concentration to the MTCA Cleanup Level or Soil-to-Sediment Screening Level, whichever is lower.
Chemicals and samples with exceedance factors greater than 1 are shaded light yellow.

Table F-15
Chemicals Detected in Soil Samples
Seattle Parks and Recreation Westbridge Maintenance Facility

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
GeoEngineers 2002a	8/18/2001	EX-4	13	1-Methylnaphthalene	0.05	34.5		<1
GeoEngineers 2001	6/5/2000	GP-13	10	2-Methylnaphthalene	13.3	320	0.073	182
GeoEngineers 2002a	8/18/2001	EX-4	13	2-Methylnaphthalene	0.03	320	0.073	<1
GeoEngineers 2001	6/9/2000	IB-4	11	Acenaphthene	3.35	4,800	0.06	56
GeoEngineers 2001	5/5/2000	GP-1	13	Acenaphthene	2.85	4,800	0.06	48
GeoEngineers 2001	6/8/2000	MW-9	10.5	Acenaphthene	2.58	4,800	0.06	43
GeoEngineers 2001	6/8/2000	MW-12	11	Acenaphthene	2.58	4,800	0.06	43
GeoEngineers 2001	6/5/2000	GP-16	11	Acenaphthene	1.49	4,800	0.06	25
GeoEngineers 2001	6/5/2000	GP-13	10	Acenaphthene	0.617	4,800	0.06	10
GeoEngineers 2002a	8/18/2001	EX-4	13	Acenaphthene	0.22	4,800	0.06	3.7
GeoEngineers 2002a	8/18/2001	EX-3	12	Acenaphthene	0.03	4,800	0.06	<1
GeoEngineers 2002a	8/22/2001	EX-19	12	Acenaphthene	0.02	4,800	0.06	<1
GeoEngineers 2002a	8/18/2001	EX-3	12	Acenaphthylene	0.22		0.069	3.2
GeoEngineers 2002a	8/18/2001	EX-4	13	Acenaphthylene	0.22		0.069	3.2
GeoEngineers 2002a	8/21/2001	EX-10	13	Acenaphthylene	0.1		0.069	1.4
GeoEngineers 2002a	8/21/2001	EX-8	12	Acenaphthylene	0.08		0.069	1.2
GeoEngineers 2002a	8/22/2001	EX-17	13	Acenaphthylene	0.05		0.069	<1
GeoEngineers 2002a	8/20/2001	EX-6	12	Acenaphthylene	0.04		0.069	<1
GeoEngineers 2001	5/5/2000	GP-1	13	Anthracene	2.71	24,000	1.2	2.3
GeoEngineers 2001	6/8/2000	MW-9	10.5	Anthracene	2.32	24,000	1.2	1.9
GeoEngineers 2001	6/5/2000	GP-16	11	Anthracene	2.06	24,000	1.2	1.7
GeoEngineers 2001	6/8/2000	MW-12	11	Anthracene	2.04	24,000	1.2	1.7
GeoEngineers 2002a	8/18/2001	EX-3	12	Anthracene	1.6	24,000	1.2	1.3
GeoEngineers 2001	6/9/2000	IB-4	11	Anthracene	1.33	24,000	1.2	1.1
GeoEngineers 2001	6/5/2000	GP-13	10	Anthracene	0.779	24,000	1.2	<1
GeoEngineers 2001	6/8/2000	MW-11	12.5	Anthracene	0.679	24,000	1.2	<1
GeoEngineers 2002a	8/18/2001	EX-4	13	Anthracene	0.41	24,000	1.2	<1
GeoEngineers 2002a	8/21/2001	EX-8	12	Anthracene	0.14	24,000	1.2	<1
GeoEngineers 2002a	8/22/2001	EX-17	13	Anthracene	0.13	24,000	1.2	<1
GeoEngineers 2002a	8/20/2001	EX-6	12	Anthracene	0.07	24,000	1.2	<1
GeoEngineers 2002a	8/21/2001	EX-10	13	Anthracene	0.07	24,000	1.2	<1
GeoEngineers 2001	6/5/2000	GP-10	12	Anthracene	0.0614	24,000	1.2	<1
GeoEngineers 2002a	8/20/2001	EX-7	12	Anthracene	0.05	24,000	1.2	<1
GeoEngineers 2002a	8/22/2001	EX-19	12	Anthracene	0.03	24,000	1.2	<1
GeoEngineers 2002a	8/21/2001	EX-11	13	Anthracene	0.03	24,000	1.2	<1

Table F-15
Chemicals Detected in Soil Samples
Seattle Parks and Recreation Westbridge Maintenance Facility

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
GeoEngineers 2001	5/5/2000	GP-4	6	Arsenic	4.8	0.67	12,000	7.2
GeoEngineers 2001	5/5/2000	GP-3	6	Arsenic	3.98	0.67	12,000	5.9
Law 1991	9/30/1931	MW-3	7.5	Benzene	7.4	0.03		247
GeoEngineers 2000a	1/8/2000	AB-3	11	Benzene	0.296	0.03		9.9
AGRA 1996	5/3/1993	NEF-8	10 - 12	Benzene	0.19	0.03		6.3
GeoEngineers 2001	6/5/2000	GP-16	11	Benzo(a)anthracene	1.77	1.37	0.27	6.6
GeoEngineers 2001	6/8/2000	MW-9	10.5	Benzo(a)anthracene	1.31	1.37	0.27	4.9
GeoEngineers 2001	6/9/2000	IB-4	11	Benzo(a)anthracene	1.24	1.37	0.27	4.6
GeoEngineers 2001	5/5/2000	GP-1	13	Benzo(a)anthracene	1.13	1.37	0.27	4.2
GeoEngineers 2002a	8/18/2001	EX-3	12	Benzo(a)anthracene	0.9	1.37	0.27	3.3
GeoEngineers 2001	6/8/2000	MW-12	11	Benzo(a)anthracene	0.815	1.37	0.27	3.0
GeoEngineers 2002a	8/18/2001	EX-4	13	Benzo(a)anthracene	0.6	1.37	0.27	2.2
GeoEngineers 2002a	8/21/2001	EX-8	12	Benzo(a)anthracene	0.43	1.37	0.27	1.6
GeoEngineers 2002a	8/20/2001	EX-6	12	Benzo(a)anthracene	0.37	1.37	0.27	1.4
GeoEngineers 2002a	8/21/2001	EX-10	13	Benzo(a)anthracene	0.35	1.37	0.27	1.3
GeoEngineers 2001	6/8/2000	MW-11	12.5	Benzo(a)anthracene	0.306	1.37	0.27	1.1
GeoEngineers 2002a	8/22/2001	EX-17	13	Benzo(a)anthracene	0.26	1.37	0.27	<1
GeoEngineers 2002a	8/20/2001	EX-7	12	Benzo(a)anthracene	0.12	1.37	0.27	<1
GeoEngineers 2002a	8/21/2001	EX-11	13	Benzo(a)anthracene	0.08	1.37	0.27	<1
GeoEngineers 2001	6/5/2000	GP-10	12	Benzo(a)anthracene	0.0614	1.37	0.27	<1
GeoEngineers 2002a	8/22/2001	EX-21	11	Benzo(a)anthracene	0.06	1.37	0.27	<1
GeoEngineers 2002a	8/22/2001	EX-20	11	Benzo(a)anthracene	0.04	1.37	0.27	<1
GeoEngineers 2002a	8/22/2001	EX-19	12	Benzo(a)anthracene	0.04	1.37	0.27	<1
GeoEngineers 2002a	8/21/2001	EX-9	13	Benzo(a)anthracene	0.04	1.37	0.27	<1
GeoEngineers 2002a	8/21/2001	EX-12	13	Benzo(a)anthracene	0.02	1.37	0.27	<1
GeoEngineers 2002a	8/18/2001	EX-3	12	Benzo(a)pyrene	1.6	0.137	0.21	12
GeoEngineers 2001	6/8/2000	MW-9	10.5	Benzo(a)pyrene	1.01	0.137	0.21	7
GeoEngineers 2001	6/9/2000	IB-4	11	Benzo(a)pyrene	0.901	0.137	0.21	6.6
GeoEngineers 2001	6/5/2000	GP-16	11	Benzo(a)pyrene	0.826	0.137	0.21	6.0
GeoEngineers 2001	5/5/2000	GP-1	13	Benzo(a)pyrene	0.814	0.137	0.21	5.9
GeoEngineers 2001	6/8/2000	MW-12	11	Benzo(a)pyrene	0.634	0.137	0.21	4.6
GeoEngineers 2002a	8/18/2001	EX-4	13	Benzo(a)pyrene	0.53	0.137	0.21	3.9
GeoEngineers 2002a	8/21/2001	EX-8	12	Benzo(a)pyrene	0.39	0.137	0.21	2.8
GeoEngineers 2002a	8/21/2001	EX-10	13	Benzo(a)pyrene	0.32	0.137	0.21	2.3
GeoEngineers 2002a	8/20/2001	EX-6	12	Benzo(a)pyrene	0.3	0.137	0.21	2.2
GeoEngineers 2001	6/8/2000	MW-11	12.5	Benzo(a)pyrene	0.283	0.137	0.21	2.1

Table F-15
Chemicals Detected in Soil Samples
Seattle Parks and Recreation Westbridge Maintenance Facility

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
GeoEngineers 2002a	8/22/2001	EX-17	13	Benzo(a)pyrene	0.24	0.137	0.21	1.8
GeoEngineers 2002a	8/20/2001	EX-7	12	Benzo(a)pyrene	0.1	0.137	0.21	0.7
GeoEngineers 2002a	8/21/2001	EX-11	13	Benzo(a)pyrene	0.08	0.137	0.21	<1
GeoEngineers 2002a	8/22/2001	EX-21	11	Benzo(a)pyrene	0.05	0.137	0.21	<1
GeoEngineers 2002a	8/22/2001	EX-20	11	Benzo(a)pyrene	0.04	0.137	0.21	<1
GeoEngineers 2002a	8/22/2001	EX-19	12	Benzo(a)pyrene	0.04	0.137	0.21	<1
GeoEngineers 2002a	8/21/2001	EX-9	13	Benzo(a)pyrene	0.03	0.137	0.21	<1
GeoEngineers 2002a	8/21/2001	EX-12	13	Benzo(a)pyrene	0.02	0.137	0.21	<1
GeoEngineers 2001	6/9/2000	IB-4	11	Benzo(b)fluoranthene	0.859	1.37	0.45	1.9
GeoEngineers 2002a	8/18/2001	EX-4	13	Benzo(b)fluoranthene	0.53	1.37	0.45	1.2
GeoEngineers 2002a	8/21/2001	EX-8	12	Benzo(b)fluoranthene	0.45	1.37	0.45	1.0
GeoEngineers 2002a	8/20/2001	EX-6	12	Benzo(b)fluoranthene	0.34	1.37	0.45	<1
GeoEngineers 2002a	8/21/2001	EX-10	13	Benzo(b)fluoranthene	0.32	1.37	0.45	<1
GeoEngineers 2001	6/8/2000	MW-11	12.5	Benzo(b)fluoranthene	0.317	1.37	0.45	<1
GeoEngineers 2002a	8/22/2001	EX-17	13	Benzo(b)fluoranthene	0.24	1.37	0.45	<1
GeoEngineers 2002a	8/20/2001	EX-7	12	Benzo(b)fluoranthene	0.12	1.37	0.45	<1
GeoEngineers 2002a	8/21/2001	EX-11	13	Benzo(b)fluoranthene	0.08	1.37	0.45	<1
GeoEngineers 2002a	8/22/2001	EX-21	11	Benzo(b)fluoranthene	0.07	1.37	0.45	<1
GeoEngineers 2002a	8/22/2001	EX-20	11	Benzo(b)fluoranthene	0.04	1.37	0.45	<1
GeoEngineers 2002a	8/22/2001	EX-19	12	Benzo(b)fluoranthene	0.04	1.37	0.45	<1
GeoEngineers 2002a	8/21/2001	EX-9	13	Benzo(b)fluoranthene	0.04	1.37	0.45	<1
GeoEngineers 2002a	8/21/2001	EX-12	13	Benzo(b)fluoranthene	0.02	1.37	0.45	<1
GeoEngineers 2002a	8/18/2001	EX-3	12	Benzo(g,h,i)perylene	3.4		0.078	44
GeoEngineers 2001	6/8/2000	MW-9	10.5	Benzo(g,h,i)perylene	0.613		0.078	7.9
GeoEngineers 2001	5/5/2000	GP-1	13	Benzo(g,h,i)perylene	0.542		0.078	6.9
GeoEngineers 2001	6/9/2000	IB-4	11	Benzo(g,h,i)perylene	0.515		0.078	6.6
GeoEngineers 2002a	8/18/2001	EX-4	13	Benzo(g,h,i)perylene	0.33		0.078	4.2
GeoEngineers 2002a	8/21/2001	EX-8	12	Benzo(g,h,i)perylene	0.22		0.078	2.8
GeoEngineers 2002a	8/20/2001	EX-6	12	Benzo(g,h,i)perylene	0.17		0.078	2.2
GeoEngineers 2001	6/8/2000	MW-11	12.5	Benzo(g,h,i)perylene	0.151		0.078	1.9
GeoEngineers 2002a	8/21/2001	EX-10	13	Benzo(g,h,i)perylene	0.15		0.078	1.9
GeoEngineers 2002a	8/22/2001	EX-17	13	Benzo(g,h,i)perylene	0.14		0.078	1.8
GeoEngineers 2002a	8/22/2001	EX-21	11	Benzo(g,h,i)perylene	0.06		0.078	<1
GeoEngineers 2002a	8/20/2001	EX-7	12	Benzo(g,h,i)perylene	0.06		0.078	<1
GeoEngineers 2002a	8/22/2001	EX-20	11	Benzo(g,h,i)perylene	0.05		0.078	<1
GeoEngineers 2002a	8/21/2001	EX-11	13	Benzo(g,h,i)perylene	0.05		0.078	<1

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Chemicals Detected in Soil Samples
Seattle Parks and Recreation Westbridge Maintenance Facility

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
GeoEngineers 2002a	8/22/2001	EX-19	12	Benzo(g,h,i)perylene	0.02		0.078	<1
GeoEngineers 2002a	8/21/2001	EX-9	13	Benzo(g,h,i)perylene	0.02		0.078	<1
GeoEngineers 2002a	8/18/2001	EX-4	13	Benzo(k)fluoranthene	0.17	13.7	0.45	<1
GeoEngineers 2002a	8/21/2001	EX-8	12	Benzo(k)fluoranthene	0.11	13.7	0.45	<1
GeoEngineers 2001	6/8/2000	MW-11	12.5	Benzo(k)fluoranthene	0.106	13.7	0.45	<1
GeoEngineers 2002a	8/20/2001	EX-6	12	Benzo(k)fluoranthene	0.1	13.7	0.45	<1
GeoEngineers 2002a	8/21/2001	EX-10	13	Benzo(k)fluoranthene	0.09	13.7	0.45	<1
GeoEngineers 2002a	8/22/2001	EX-17	13	Benzo(k)fluoranthene	0.09	13.7	0.45	<1
GeoEngineers 2002a	8/20/2001	EX-7	12	Benzo(k)fluoranthene	0.04	13.7	0.45	<1
GeoEngineers 2002a	8/21/2001	EX-11	13	Benzo(k)fluoranthene	0.03	13.7	0.45	<1
GeoEngineers 2001	5/5/2000	GP-3	6	Cadmium	2.2	2	34	1.1
GeoEngineers 2001	5/5/2000	GP-4	6	Cadmium	1.52	2	34	<1
GeoEngineers 2001	5/5/2000	GP-4	6	Chromium	63.3	2,000	5,400	<1
GeoEngineers 2001	5/5/2000	GP-3	6	Chromium	18.6	2,000	5,400	<1
GeoEngineers 2001	6/5/2000	GP-16	11	Chrysene	3.47	137	0.46	7.5
GeoEngineers 2001	5/5/2000	GP-1	13	Chrysene	2.62	137	0.46	5.7
GeoEngineers 2001	6/9/2000	IB-4	11	Chrysene	2.4	137	0.46	5.2
GeoEngineers 2001	6/8/2000	MW-9	10.5	Chrysene	2.32	137	0.46	5.0
GeoEngineers 2001	6/8/2000	MW-12	11	Chrysene	2.04	137	0.46	4.4
GeoEngineers 2002a	8/18/2001	EX-3	12	Chrysene	1.8	137	0.46	3.9
GeoEngineers 2001	6/5/2000	GP-13	10	Chrysene	0.799	137	0.46	1.7
GeoEngineers 2002a	8/18/2001	EX-4	13	Chrysene	0.46	137	0.46	1.0
GeoEngineers 2002a	8/21/2001	EX-8	12	Chrysene	0.36	137	0.46	<1
GeoEngineers 2002a	8/21/2001	EX-10	13	Chrysene	0.3	137	0.46	<1
GeoEngineers 2002a	8/20/2001	EX-6	12	Chrysene	0.27	137	0.46	<1
GeoEngineers 2001	6/8/2000	MW-11	12.5	Chrysene	0.268	137	0.46	<1
GeoEngineers 2002a	8/22/2001	EX-17	13	Chrysene	0.21	137	0.46	<1
GeoEngineers 2002a	8/20/2001	EX-7	12	Chrysene	0.1	137	0.46	<1
GeoEngineers 2001	6/5/2000	GP-10	12	Chrysene	0.0983	137	0.46	<1
GeoEngineers 2002a	8/21/2001	EX-11	13	Chrysene	0.06	137	0.46	<1
GeoEngineers 2002a	8/22/2001	EX-20	11	Chrysene	0.04	137	0.46	<1
GeoEngineers 2002a	8/22/2001	EX-21	11	Chrysene	0.04	137	0.46	<1
GeoEngineers 2002a	8/22/2001	EX-19	12	Chrysene	0.03	137	0.46	<1
GeoEngineers 2002a	8/21/2001	EX-9	13	Chrysene	0.03	137	0.46	<1
GeoEngineers 2001	5/5/2000	GP-3	6	Copper	51.1	3,200	780	<1
GeoEngineers 2001	5/5/2000	GP-4	6	Copper	39.8	3,200	780	<1

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Chemicals Detected in Soil Samples
Seattle Parks and Recreation Westbridge Maintenance Facility

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
GeoEngineers 2001	6/5/2000	GP-16	11	cPAHs, total	6.066	0.137		44
GeoEngineers 2001	6/9/2000	IB-4	11	cPAHs, total	5.4	0.137		39
GeoEngineers 2001	6/8/2000	MW-9	10.5	cPAHs, total	4.64	0.137		34
GeoEngineers 2001	5/5/2000	GP-1	12	cPAHs, total	4.564	0.137		33
GeoEngineers 2001	6/8/2000	MW-11	12.5	cPAHs, total	3.989	0.137		29
GeoEngineers 2001	6/8/2000	MW-12	11	cPAHs, total	3.489	0.137		25
GeoEngineers 2002a	8/18/2001	EX-4	13	cPAHs, total	2.8	0.137		20
GeoEngineers 2002a	8/21/2001	EX-8	12	cPAHs, total	1.99	0.137		15
GeoEngineers 2002a	8/21/2001	EX-10	13	cPAHs, total	1.56	0.137		11
GeoEngineers 2002a	8/20/2001	EX-6	12	cPAHs, total	1.21	0.137		8.8
GeoEngineers 2002a	8/22/2001	EX-17	13	cPAHs, total	1.19	0.137		8.7
GeoEngineers 2001	6/5/2000	GP-13	10	cPAHs, total	0.779	0.137		5.7
GeoEngineers 2002a	8/20/2001	EX-7	12	cPAHs, total	0.53	0.137		3.9
GeoEngineers 2002a	8/21/2001	EX-11	13	cPAHs, total	0.37	0.137		2.7
GeoEngineers 2002a	8/22/2001	EX-21	11	cPAHs, total	0.25	0.137		1.8
GeoEngineers 2002a	8/18/2001	EX-3	12	cPAHs, total	0.22	0.137		1.6
GeoEngineers 2002a	8/22/2001	EX-20	11	cPAHs, total	0.16	0.137		1.2
GeoEngineers 2001	6/5/2000	GP-10	12	cPAHs, total	0.1597	0.137		1.2
GeoEngineers 2002a	8/22/2001	EX-19	12	cPAHs, total	0.15	0.137		1.1
GeoEngineers 2002a	8/21/2001	EX-9	13	cPAHs, total	0.14	0.137		1.0
GeoEngineers 2002a	8/21/2001	EX-12	13	cPAHs, total	0.06	0.137		<1
GeoEngineers 2002a	8/18/2001	EX-3	12	Dibenzo(a,h)anthracene	0.81	0.137	0.033	25
GeoEngineers 2002a	8/18/2001	EX-4	13	Dibenzo(a,h)anthracene	0.08	0.137	0.033	2.4
GeoEngineers 2002a	8/21/2001	EX-8	12	Dibenzo(a,h)anthracene	0.05	0.137	0.033	1.5
GeoEngineers 2002a	8/20/2001	EX-6	12	Dibenzo(a,h)anthracene	0.04	0.137	0.033	1.2
GeoEngineers 2002a	8/21/2001	EX-10	13	Dibenzo(a,h)anthracene	0.04	0.137	0.033	1.2
GeoEngineers 2002a	8/22/2001	EX-17	13	Dibenzo(a,h)anthracene	0.03	0.137	0.033	<1
GeoEngineers 2001	6/6/2000	GP-13	10	Diesel-range hydrocarbons	28,900	2,000		14
GeoEngineers 2001	6/6/2000	GP-16	11	Diesel-range hydrocarbons	26,100	2,000		13
GeoEngineers 2001	6/9/2000	IB-4	11	Diesel-range hydrocarbons	18,000	2,000		9.0
GeoEngineers 2001	6/6/2000	GP-14	10	Diesel-range hydrocarbons	15,700	2,000		7.9
GeoEngineers 2001	5/5/2000	GP-8	11	Diesel-range hydrocarbons	12,000	2,000		6.0
GeoEngineers 2001	5/5/2000	GP-6	12	Diesel-range hydrocarbons	11,900	2,000		6.0
GeoEngineers 2001	6/8/2000	MW-9	10.5	Diesel-range hydrocarbons	11,100	2,000		5.6
GeoEngineers 2001	6/8/2000	MW-12	12.5	Diesel-range hydrocarbons	10,300	2,000		5.2
GeoEngineers 2001	5/5/2000	GP-1	13	Diesel-range hydrocarbons	8,960	2,000		4.5

Table F-15
Chemicals Detected in Soil Samples
Seattle Parks and Recreation Westbridge Maintenance Facility

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
GeoEngineers 2001	6/8/2000	MW-10	13	Diesel-range hydrocarbons	8,500	2,000		4.3
GeoEngineers 2001	5/5/2000	GP-2	11	Diesel-range hydrocarbons	6,300	2,000		3.2
GeoEngineers 2001	6/8/2000	MW-13	11	Diesel-range hydrocarbons	4,910	2,000		2.5
GeoEngineers 2001	6/9/2000	OB-1	11	Diesel-range hydrocarbons	3,750	2,000		1.9
GeoEngineers 2001	5/5/2000	GP-5	12	Diesel-range hydrocarbons	3,330	2,000		1.7
GeoEngineers 2001	6/6/2000	GP-12	10	Diesel-range hydrocarbons	2,810	2,000		1.4
GeoEngineers 2001	6/9/2000	IB-1	13.5	Diesel-range hydrocarbons	1,640	2,000		<1
GeoEngineers 2001	6/8/2000	MW-11	11	Diesel-range hydrocarbons	1,210	2,000		<1
GeoEngineers 2001	5/5/2000	GP-9	12	Diesel-range hydrocarbons	929	2,000		<1
AGRA 1996	5/3/1993	NEF-9	10 - 12	Diesel-range hydrocarbons	680	2,000		<1
GeoEngineers 2001	5/5/2000	GP-8	9	Diesel-range hydrocarbons	641	2,000		<1
GeoEngineers 2001	6/6/2000	GP-10	12	Diesel-range hydrocarbons	425	2,000		<1
AGRA 1996	5/3/1993	NEW-16	8-10	Diesel-range hydrocarbons	300	2,000		<1
AGRA 1996	5/3/1993	NEF-15	10 - 12	Diesel-range hydrocarbons	260	2,000		<1
GeoEngineers 2001	6/6/2000	GP-15	12	Diesel-range hydrocarbons	253	2,000		<1
GeoEngineers 2001	6/6/2000	GP-18	12	Diesel-range hydrocarbons	207	2,000		<1
GeoEngineers 2002a	8/23/2001	EX-20	11	Diesel-range hydrocarbons	160	2,000		<1
AGRA 1996	5/3/1993	NEF-8	10 - 12	Diesel-range hydrocarbons	160	2,000		<1
GeoEngineers 2002a	8/23/2001	EX-21	11	Diesel-range hydrocarbons	140	2,000		<1
GeoEngineers 2001	6/8/2000	MW-11	12.5	Diesel-range hydrocarbons	127	2,000		<1
GeoEngineers 2001	6/9/2000	OB-2	11	Diesel-range hydrocarbons	108	2,000		<1
GeoEngineers 2001	6/6/2000	GP-11	12	Diesel-range hydrocarbons	76.8	2,000		<1
AGRA 1996	5/12/1993	MW-4	5	Diesel-range hydrocarbons	40	2,000		<1
Law 1991	9/23/1991	MW-2	17.5	Diesel-range hydrocarbons	22	2,000		<1
GeoEngineers 2001	5/5/2000	GP-7	14	Diesel-range hydrocarbons	18.4	2,000		<1
GeoEngineers 2001	6/6/2000	GP-19	12	Diesel-range hydrocarbons	17.5	2,000		<1
GeoEngineers 2001	5/5/2000	GP-7	16	Diesel-range hydrocarbons	16.8	2,000		<1
GeoEngineers 2001	6/6/2000	GP-20	12	Diesel-range hydrocarbons	15.1	2,000		<1
GeoEngineers 2001	6/6/2000	GP-21	12	Diesel-range hydrocarbons	13.1	2,000		<1
AGRA 1996	5/3/1993	EW-3	8-10	Diesel-range hydrocarbons	11	2,000		<1
AGRA 1996	5/3/1993	EW-4	10 - 12	Diesel-range hydrocarbons	5.5	2,000		<1
GeoEngineers 2000a	2/2/2000	AB-6	7.5	Ethylbenzene	131	6		22
AGRA 1996	5/3/1993	NEF-15	10 - 12	Ethylbenzene	80	6		13
GeoEngineers 2000a	2/2/2000	AB-3	7.5	Ethylbenzene	71.4	6		12
GeoEngineers 2000a	2/2/2000	AB-4	7.5	Ethylbenzene	9.51	6		1.6
GeoEngineers 2000a	1/8/2000	AB-2	7.0	Ethylbenzene	7.99	6		1.3

Table F-15
Chemicals Detected in Soil Samples
Seattle Parks and Recreation Westbridge Maintenance Facility

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
Law 1991	9/30/1931	MW-3	7.5	Ethylbenzene	6.2	6		1.0
AGRA 1996	5/3/1993	NEF-8	10 - 12	Ethylbenzene	3.5	6		<1
AGRA 1996	5/3/1993	NEF-9	10 - 12	Ethylbenzene	3.5	6		<1
GeoEngineers 2000a	2/2/2000	AB-5	7.5	Ethylbenzene	1.95	6		<1
GeoEngineers 2000a	2/2/2000	AB-3	11	Ethylbenzene	1.61	6		<1
AGRA 1996	5/3/1993	EW-4	10 - 12	Ethylbenzene	0.27	6		<1
Law 1991	9/30/1931	MW-3	17.5	Ethylbenzene	0.01	6		<1
GeoEngineers 2001	5/5/2000	GP-1	13	Fluoranthene	1.67	3,200	1.2	1.4
GeoEngineers 2001	6/5/2000	GP-16	11	Fluoranthene	1.24	3,200	1.2	1.0
GeoEngineers 2002a	8/18/2001	EX-4	13	Fluoranthene	1.2	3,200	1.2	1.0
GeoEngineers 2001	6/9/2000	IB-4	11	Fluoranthene	1.12	3,200	1.2	<1
GeoEngineers 2001	6/8/2000	MW-9	10.5	Fluoranthene	0.963	3,200	1.2	<1
GeoEngineers 2002a	8/21/2001	EX-8	12	Fluoranthene	0.96	3,200	1.2	<1
GeoEngineers 2001	6/8/2000	MW-12	11	Fluoranthene	0.815	3,200	1.2	<1
GeoEngineers 2002a	8/18/2001	EX-3	12	Fluoranthene	0.64	3,200	1.2	<1
GeoEngineers 2002a	8/22/2001	EX-17	13	Fluoranthene	0.57	3,200	1.2	<1
GeoEngineers 2002a	8/20/2001	EX-6	12	Fluoranthene	0.53	3,200	1.2	<1
GeoEngineers 2001	6/8/2000	MW-11	12.5	Fluoranthene	0.441	3,200	1.2	<1
GeoEngineers 2002a	8/21/2001	EX-10	13	Fluoranthene	0.36	3,200	1.2	<1
GeoEngineers 2002a	8/20/2001	EX-7	12	Fluoranthene	0.25	3,200	1.2	<1
GeoEngineers 2002a	8/21/2001	EX-11	13	Fluoranthene	0.18	3,200	1.2	<1
GeoEngineers 2002a	8/22/2001	EX-21	11	Fluoranthene	0.11	3,200	1.2	<1
GeoEngineers 2002a	8/22/2001	EX-19	12	Fluoranthene	0.11	3,200	1.2	<1
GeoEngineers 2002a	8/21/2001	EX-9	13	Fluoranthene	0.1	3,200	1.2	<1
GeoEngineers 2002a	8/22/2001	EX-20	11	Fluoranthene	0.05	3,200	1.2	<1
GeoEngineers 2002a	8/21/2001	EX-12	13	Fluoranthene	0.05	3,200	1.2	<1
GeoEngineers 2002a	8/22/2001	EX-16	14	Fluoranthene	0.04	3,200	1.2	<1
GeoEngineers 2001	5/5/2000	GP-1	13	Fluorene	7.37	3,200	0.081	91
GeoEngineers 2001	6/8/2000	MW-9	10.5	Fluorene	5.86	3,200	0.081	72
GeoEngineers 2001	6/9/2000	IB-4	11	Fluorene	5.71	3,200	0.081	70
GeoEngineers 2001	6/8/2000	MW-12	11	Fluorene	5.48	3,200	0.081	68
GeoEngineers 2001	6/5/2000	GP-16	11	Fluorene	3.8	3,200	0.081	47
GeoEngineers 2001	6/5/2000	GP-13	10	Fluorene	1.2	3,200	0.081	15
GeoEngineers 2002a	8/18/2001	EX-3	12	Fluorene	0.15	3,200	0.081	1.9
GeoEngineers 2002a	8/18/2001	EX-4	13	Fluorene	0.14	3,200	0.081	1.7
GeoEngineers 2002a	8/21/2001	EX-8	12	Fluorene	0.04	3,200	0.081	<1

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Chemicals Detected in Soil Samples
Seattle Parks and Recreation Westbridge Maintenance Facility

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
GeoEngineers 2002a	8/22/2001	EX-17	13	Fluorene	0.03	3,200	0.081	<1
AGRA 1996	5/3/1993	NEF-15	10 - 12	Gasoline-range hydrocarbons	19,000	30		633
GeoEngineers 2000a	2/2/2000	AB-6	7.5	Gasoline-range hydrocarbons	9,970	30		332
GeoEngineers 2000a	2/2/2000	AB-3	7.5	Gasoline-range hydrocarbons	3,430	30		114
Law 1991	9/30/1931	MW-3	7.5	Gasoline-range hydrocarbons	2,800	30		93
GeoEngineers 2000a	2/2/2000	AB-4	7.5	Gasoline-range hydrocarbons	2,360	30		79
AGRA 1996	5/3/1993	NEW-16	8-10	Gasoline-range hydrocarbons	2,100	30		70
Northwest Envirocon 1991	9/6/1991	001	7.5	Gasoline-range hydrocarbons	830	30		28
Northwest Envirocon 1991	9/6/1991	003	6	Gasoline-range hydrocarbons	660	30		22
GeoEngineers 2000a	1/8/2000	AB-2	7.0	Gasoline-range hydrocarbons	615	30		21
AGRA 1996	5/3/1993	NEF-9	10 - 12	Gasoline-range hydrocarbons	600	30		20
GeoEngineers 2000a	2/2/2000	AB-5	7.5	Gasoline-range hydrocarbons	437	30		15
AGRA 1996	5/3/1993	NEF-8	10 - 12	Gasoline-range hydrocarbons	300	30		10
GeoEngineers 2000a	2/2/2000	AB-3	11	Gasoline-range hydrocarbons	116	30		3.9
AGRA 1996	5/3/1993	EW-4	10 - 12	Gasoline-range hydrocarbons	55	30		1.8
AGRA 1996	5/3/1993	SEF-17	10 - 12	Gasoline-range hydrocarbons	16	30		<1
Northwest Envirocon 1991	9/6/1991	002	5	Gasoline-range hydrocarbons	5.4	30		<1
AGRA 1996	5/3/1993	EW-3	8-10	Gasoline-range hydrocarbons	1.8	30		<1
GeoEngineers 2001	6/6/2000	GP-16	11	Heavy Oil-range hydrocarbons	20,600	2,000		10
GeoEngineers 2001	6/6/2000	GP-13	10	Heavy Oil-range hydrocarbons	19,100	2,000		9.6
GeoEngineers 2001	6/6/2000	GP-14	10	Heavy Oil-range hydrocarbons	12,100	2,000		6.1
GeoEngineers 2001	6/9/2000	IB-4	11	Heavy Oil-range hydrocarbons	10,600	2,000		5.3
GeoEngineers 2001	5/5/2000	GP-6	12	Heavy Oil-range hydrocarbons	9,960	2,000		5.0
GeoEngineers 2001	6/8/2000	MW-12	12.5	Heavy Oil-range hydrocarbons	8,780	2,000		4.4
GeoEngineers 2001	6/8/2000	MW-9	10.5	Heavy Oil-range hydrocarbons	8,660	2,000		4.3
GeoEngineers 2001	5/5/2000	GP-8	11	Heavy Oil-range hydrocarbons	7,540	2,000		3.8
GeoEngineers 2001	5/5/2000	GP-1	13	Heavy Oil-range hydrocarbons	6,340	2,000		3.2
GeoEngineers 2001	6/8/2000	MW-10	13	Heavy Oil-range hydrocarbons	5,860	2,000		2.9
GeoEngineers 2001	6/9/2000	OB-1	11	Heavy Oil-range hydrocarbons	3,750	2,000		1.9
GeoEngineers 2001	5/5/2000	GP-2	11	Heavy Oil-range hydrocarbons	3,640	2,000		1.8
GeoEngineers 2001	6/8/2000	MW-13	11	Heavy Oil-range hydrocarbons	3,530	2,000		1.8
GeoEngineers 2001	5/5/2000	GP-5	12	Heavy Oil-range hydrocarbons	2,420	2,000		1.2
GeoEngineers 2001	6/6/2000	GP-12	10	Heavy Oil-range hydrocarbons	2,100	2,000		1.1
GeoEngineers 2001	6/8/2000	MW-11	11	Heavy Oil-range hydrocarbons	1,420	2,000		<1
GeoEngineers 2001	6/9/2000	IB-1	13.5	Heavy Oil-range hydrocarbons	1,380	2,000		<1
GeoEngineers 2001	5/5/2000	GP-9	12	Heavy Oil-range hydrocarbons	884	2,000		<1

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Chemicals Detected in Soil Samples
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Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
GeoEngineers 2001	5/5/2000	GP-8	9	Heavy Oil-range hydrocarbons	644	2,000		<1
GeoEngineers 2001	6/6/2000	GP-15	12	Heavy Oil-range hydrocarbons	416	2,000		<1
GeoEngineers 2002a	8/23/2001	EX-20	11	Heavy Oil-range hydrocarbons	410	2,000		<1
GeoEngineers 2001	6/6/2000	GP-10	12	Heavy Oil-range hydrocarbons	402	2,000		<1
GeoEngineers 2001	6/6/2000	GP-18	12	Heavy Oil-range hydrocarbons	319	2,000		<1
GeoEngineers 2002a	8/23/2001	EX-21	11	Heavy Oil-range hydrocarbons	260	2,000		<1
GeoEngineers 2001	6/6/2000	GP-11	12	Heavy Oil-range hydrocarbons	200	2,000		<1
GeoEngineers 2001	6/9/2000	OB-2	11	Heavy Oil-range hydrocarbons	143	2,000		<1
GeoEngineers 2001	6/8/2000	MW-11	12.5	Heavy Oil-range hydrocarbons	93.3	2,000		<1
GeoEngineers 2001	6/6/2000	GP-19	12	Heavy Oil-range hydrocarbons	52.6	2,000		<1
GeoEngineers 2001	6/6/2000	GP-20	12	Heavy Oil-range hydrocarbons	28.1	2,000		<1
GeoEngineers 2002a	8/18/2001	EX-3	12	Indeno(1,2,3-cd)pyrene	1.5	1.37	0.088	17
GeoEngineers 2002a	8/18/2001	EX-4	13	Indeno(1,2,3-cd)pyrene	0.29	1.37	0.088	3.3
GeoEngineers 2002a	8/21/2001	EX-8	12	Indeno(1,2,3-cd)pyrene	0.22	1.37	0.088	2.5
GeoEngineers 2001	6/8/2000	MW-11	12.5	Indeno(1,2,3-cd)pyrene	0.162	1.37	0.088	1.8
GeoEngineers 2002a	8/20/2001	EX-6	12	Indeno(1,2,3-cd)pyrene	0.16	1.37	0.088	1.8
GeoEngineers 2002a	8/21/2001	EX-10	13	Indeno(1,2,3-cd)pyrene	0.14	1.37	0.088	1.6
GeoEngineers 2002a	8/22/2001	EX-17	13	Indeno(1,2,3-cd)pyrene	0.12	1.37	0.088	1.4
GeoEngineers 2002a	8/20/2001	EX-7	12	Indeno(1,2,3-cd)pyrene	0.05	1.37	0.088	<1
GeoEngineers 2002a	8/21/2001	EX-11	13	Indeno(1,2,3-cd)pyrene	0.04	1.37	0.088	<1
GeoEngineers 2002a	8/22/2001	EX-21	11	Indeno(1,2,3-cd)pyrene	0.03	1.37	0.088	<1
GeoEngineers 2001	5/5/2000	GP-3	6	Lead	20.4	250	1,300	<1
GeoEngineers 2001	5/5/2000	GP-4	6	Lead	6.64	250	1,300	<1
Law 1991	9/30/1931	MW-3	7.5	Lead	6.6	250	1,300	<1
Law 1991	9/23/1991	MW-1	7.5	Lead	4.7	250	1,300	<1
Law 1991	9/23/1991	MW-2	17.5	Lead	4.7	250	1,300	<1
Law 1991	9/23/1991	MW-2	12.5	Lead	4.0	250	1,300	<1
Law 1991	9/23/1991	MW-2	7.5	Lead	3.0	250	1,300	<1
GeoEngineers 2000a	2/2/2000	AB-3	7.5	Naphthalene	27.1	5	3.8	7.1
GeoEngineers 2001	6/8/2000	MW-12	11	Naphthalene	1.04	5	0.2	5.2
GeoEngineers 2001	5/5/2000	GP-1	13	Naphthalene	0.859	5	0.2	4.3
GeoEngineers 2001	6/8/2000	MW-9	10.5	Naphthalene	0.613	5	0.2	3.1
GeoEngineers 2001	6/5/2000	GP-16	11	Naphthalene	0.537	5	0.2	2.7
GeoEngineers 2002a	8/18/2001	EX-3	12	Naphthalene	0.06	5	0.2	<1
GeoEngineers 2002a	8/18/2001	EX-4	13	Naphthalene	0.05	5	0.2	<1
GeoEngineers 2002a	8/21/2001	EX-8	12	Naphthalene	0.02	5	0.2	<1

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GeoEngineers 2001	5/5/2000	GP-4	6	Nickel	80.6			
GeoEngineers 2001	5/5/2000	GP-3	6	Nickel	22.9			
GeoEngineers 2001	6/8/2000	MW-12	11	Phenanthrene	12		0.49	24
GeoEngineers 2001	6/8/2000	MW-9	10.5	Phenanthrene	10.2		0.49	21
GeoEngineers 2001	5/5/2000	GP-1	13	Phenanthrene	5.79		0.49	12
GeoEngineers 2001	6/5/2000	GP-13	10	Phenanthrene	4.55		0.49	9.3
GeoEngineers 2001	6/9/2000	IB-4	11	Phenanthrene	1.12		0.49	2.3
GeoEngineers 2002a	8/18/2001	EX-4	13	Phenanthrene	1.1		0.49	2.2
GeoEngineers 2002a	8/21/2001	EX-8	12	Phenanthrene	0.45		0.49	<1
GeoEngineers 2002a	8/22/2001	EX-17	13	Phenanthrene	0.3		0.49	<1
GeoEngineers 2001	6/8/2000	MW-11	12.5	Phenanthrene	0.219		0.49	<1
GeoEngineers 2002a	8/20/2001	EX-6	12	Phenanthrene	0.13		0.49	<1
GeoEngineers 2002a	8/20/2001	EX-7	12	Phenanthrene	0.1		0.49	<1
GeoEngineers 2002a	8/21/2001	EX-10	13	Phenanthrene	0.09		0.49	<1
GeoEngineers 2002a	8/22/2001	EX-21	11	Phenanthrene	0.08		0.49	<1
GeoEngineers 2002a	8/22/2001	EX-19	12	Phenanthrene	0.08		0.49	<1
GeoEngineers 2002a	8/21/2001	EX-11	13	Phenanthrene	0.08		0.49	<1
GeoEngineers 2002a	8/21/2001	EX-9	13	Phenanthrene	0.07		0.49	<1
GeoEngineers 2002a	8/22/2001	EX-20	11	Phenanthrene	0.03		0.49	<1
GeoEngineers 2002a	8/22/2001	EX-16	14	Phenanthrene	0.02		0.49	<1
GeoEngineers 2001	6/5/2000	GP-16	11	Pyrene	6.98	2,400	1.4	5.0
GeoEngineers 2001	6/8/2000	MW-9	10.5	Pyrene	6.3	2,400	1.4	4.5
GeoEngineers 2001	6/9/2000	IB-4	11	Pyrene	5.19	2,400	1.4	3.7
GeoEngineers 2001	6/8/2000	MW-12	11	Pyrene	4.94	2,400	1.4	3.5
GeoEngineers 2001	5/5/2000	GP-1	13	Pyrene	4.93	2,400	1.4	3.5
GeoEngineers 2002a	8/18/2001	EX-3	12	Pyrene	3.4	2,400	1.4	2.4
GeoEngineers 2001	6/5/2000	GP-13	10	Pyrene	1.69	2,400	1.4	1.2
GeoEngineers 2002a	8/18/2001	EX-4	13	Pyrene	1.1	2,400	1.4	<1
GeoEngineers 2002a	8/21/2001	EX-8	12	Pyrene	0.87	2,400	1.4	<1
GeoEngineers 2001	6/8/2000	MW-11	12.5	Pyrene	0.589	2,400	1.4	<1
GeoEngineers 2002a	8/22/2001	EX-17	13	Pyrene	0.56	2,400	1.4	<1
GeoEngineers 2002a	8/20/2001	EX-6	12	Pyrene	0.51	2,400	1.4	<1
GeoEngineers 2002a	8/21/2001	EX-10	13	Pyrene	0.35	2,400	1.4	<1
GeoEngineers 2002a	8/20/2001	EX-7	12	Pyrene	0.24	2,400	1.4	<1
GeoEngineers 2001	6/5/2000	GP-10	12	Pyrene	0.192	2,400	1.4	<1
GeoEngineers 2002a	8/21/2001	EX-11	13	Pyrene	0.18	2,400	1.4	<1

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GeoEngineers 2002a	8/22/2001	EX-21	11	Pyrene	0.12	2,400	1.4	<1
GeoEngineers 2002a	8/22/2001	EX-19	12	Pyrene	0.12	2,400	1.4	<1
GeoEngineers 2002a	8/22/2001	EX-20	11	Pyrene	0.11	2,400	1.4	<1
GeoEngineers 2002a	8/21/2001	EX-9	13	Pyrene	0.09	2,400	1.4	<1
GeoEngineers 2002a	8/22/2001	EX-18	13	Pyrene	0.07	2,400	1.4	<1
GeoEngineers 2002a	8/21/2001	EX-12	13	Pyrene	0.05	2,400	1.4	<1
GeoEngineers 2002a	8/22/2001	EX-16	14	Pyrene	0.04	2,400	1.4	<1
GeoEngineers 2001	5/5/2000	GP-3	6	Selenium	0.871	400		<1
GeoEngineers 2001	5/5/2000	GP-4	6	Selenium	0.571	400		<1
GeoEngineers 2000a	2/2/2000	AB-6	7.5	Toluene	142	7		20
GeoEngineers 2000a	2/2/2000	AB-3	7.5	Toluene	58.8	7		8.4
AGRA 1996	5/3/1993	NEF-15	10 - 12	Toluene	16	7		2.3
Law 1991	9/30/1931	MW-3	7.5	Toluene	15	7		2.1
AGRA 1996	5/3/1993	NEF-8	10 - 12	Toluene	1.8	7		<1
GeoEngineers 2000a	2/2/2000	AB-3	11	Toluene	0.994	7		<1
AGRA 1996	5/3/1993	NEF-9	10 - 12	Toluene	0.92	7		<1
GeoEngineers 2000a	2/2/2000	AB-5	7.5	Toluene	0.52	7		<1
AGRA 1996	5/3/1993	EW-4	10 - 12	Toluene	0.25	7		<1
Law 1991	9/30/1991	B-4	7.5	Toluene	0.02	7		<1
Law 1991	9/30/1931	MW-3	17.5	Toluene	0.012	7		<1
Law 1991	9/30/1931	MW-3	7.5	Xylenes, m- & p-	20	9		2.2
Law 1991	9/30/1931	MW-3	17.5	Xylenes, m- & p-	0.025	9		<1
Law 1991	9/30/1991	B-4	7.5	Xylenes, m- & p-	0.004	9		<1
Law 1991	9/30/1931	MW-3	7.5	Xylenes, o-	15	9		1.7
Law 1991	9/30/1931	MW-3	17.5	Xylenes, o-	0.025	9		<1
Law 1991	9/30/1991	B-4	7.5	Xylenes, o-	0.002	9		<1
GeoEngineers 2000a	2/2/2000	AB-6	7.5	Xylenes, total	1,050	9		117
AGRA 1996	5/3/1993	NEF-15	10 - 12	Xylenes, total	770	9		86
GeoEngineers 2000a	2/2/2000	AB-3	7.5	Xylenes, total	570	9		63
GeoEngineers 2000a	2/2/2000	AB-4	7.5	Xylenes, total	82.1	9		9.1
GeoEngineers 2000a	1/8/2000	AB-2	7.0	Xylenes, total	55.3	9		6.1
GeoEngineers 2000a	2/2/2000	AB-5	7.5	Xylenes, total	15.7	9		1.7
GeoEngineers 2000a	2/2/2000	AB-3	11	Xylenes, total	9.15	9		1.0
AGRA 1996	5/3/1993	NEF-9	10 - 12	Xylenes, total	4.7	9		<1
AGRA 1996	5/3/1993	SEF-17	10 - 12	Xylenes, total	1.2	9		<1
AGRA 1996	5/3/1993	EW-4	10 - 12	Xylenes, total	0.79	9		<1

Table F-15
Chemicals Detected in Soil Samples
Seattle Parks and Recreation Westbridge Maintenance Facility

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
GeoEngineers 2001	5/5/2000	GP-4	6	Zinc	82.1	24,000	770	<1
GeoEngineers 2001	5/5/2000	GP-3	6	Zinc	70.5	24,000	770	<1

ft bgs - Feet below ground surface
mg/kg - Milligrams per kilogram
MTCA - Model Toxics Control Act
CSL - Cleanup Screening Level from Washington Sediment Management Standards

a - The lower of MTCA Method A or B cleanup levels was selected, from CLARC database.
b - Based on CSL. Where two screening levels are listed for a single chemical, the higher screening levels are for soil samples collected from the vadose zone and the lower screening levels are for soil samples collected from the saturated zone (SAIC 2006).
CSL screening levels are based on a minimum groundwater elevation of 8.36 ft bgs which was encountered November 2004.
Table presents detected chemicals only.
Exceedance factors are the ratio of the detected concentration to the MTCA Cleanup Level or Soil-to-Sediment Screening Level, whichever is lower.
Chemicals and samples with exceedance factors greater than 1 are shaded light yellow.

Table F-16
Chemicals Detected in Groundwater Samples
Seattle Parks and Recreation Westbridge Maintenance Facility

Source	Sample Date	Sample Location	Chemical	GW Conc'n (ug/L)	MTCA Cleanup Level[a] (ug/L)	GW-to-Sediment Screening Level[b] (ug/L)	Exceedance Factor
GeoEngineers 2001	6/20/2000	MW-12	Acenaphthene	1.73	960	9.3	<1
GeoEngineers 2001	6/20/2000	MW-10	Acenaphthene	0.932	960	9.3	<1
GeoEngineers 2004a	8/31/2000	MW-10	Acenaphthene	0.84	960	9.3	<1
GeoEngineers 2001	6/20/2000	MW-11	Acenaphthene	0.741	960	9.3	<1
GeoEngineers 2001	6/20/2000	MW-13	Acenaphthene	0.305	960	9.3	<1
GeoEngineers 2005	11/29/2004	MW-10	Acenaphthene	0.26	960	9.3	<1
GeoEngineers 2004a	7/30/2003	MW-10	Acenaphthene	0.24	960	9.3	<1
GeoEngineers 2004a	11/14/2003	MW-10	Acenaphthene	0.229	960	9.3	<1
GeoEngineers 2004b	5/26/2004	MW-10	Acenaphthene	0.227	960	9.3	<1
GeoEngineers 2004a	2/20/2004	MW-10	Acenaphthene	0.187	960	9.3	<1
GeoEngineers 2004b	5/26/2004	MW-14	Acenaphthene	0.114	960	9.3	<1
GeoEngineers 2001	6/20/2000	MW-12	Acenaphthylene	0.384		11	<1
GeoEngineers 2001	6/20/2000	MW-12	Anthracene	0.499	4,800	59	<1
GeoEngineers 2001	6/20/2000	MW-10	Anthracene	0.399	4,800	59	<1
GeoEngineers 2004a	8/31/2000	MW-10	Anthracene	0.28	4,800	59	<1
GeoEngineers 2005	11/29/2004	MW-10	Anthracene	0.165	4,800	59	<1
GeoEngineers 2004a	11/14/2003	MW-10	Anthracene	0.162	4,800	59	<1
GeoEngineers 2004a	2/20/2004	MW-10	Anthracene	0.136	4,800	59	<1
GeoEngineers 2004b	5/26/2004	MW-10	Anthracene	0.112	4,800	59	<1
Law 1991	10/11/1991	MW-3	Benzene	3,000	0.8		3,750
AGRA 1996	5/19/1993	MW-5	Benzene	280	0.8		350
AGRA 1996	2/25/1993	MW-3	Benzene	120	0.8		150
Law 1991	10/11/1991	MW-2	Benzene	6	0.8		7.5
GeoEngineers 2004a	8/31/2000	MW-10	Benzo(a)anthracene	0.2	0.12	0.63	1.7
GeoEngineers 2001	6/20/2000	MW-12	Benzo(a)anthracene	0.153	0.12	0.63	1.3
GeoEngineers 2001	6/20/2000	MW-10	Benzo(a)anthracene	0.152	0.12	0.63	1.3
GeoEngineers 2004a	7/30/2003	MW-10	Benzo(a)anthracene	0.052	0.12	0.63	<1
GeoEngineers 2004a	11/14/2003	MW-10	Benzo(a)anthracene	0.0462	0.12	0.63	<1
GeoEngineers 2005	11/29/2004	MW-10	Benzo(a)anthracene	0.0455	0.12	0.63	<1
GeoEngineers 2004b	5/26/2004	MW-10	Benzo(a)anthracene	0.0324	0.12	0.63	<1
GeoEngineers 2005	11/29/2004	MW-10	Benzo(a)pyrene	0.0238	0.012	0.27	2.0
GeoEngineers 2004b	5/26/2004	MW-10	Benzo(a)pyrene	0.021	0.012	0.27	1.8
GeoEngineers 2004a	7/30/2003	MW-10	Benzo(a)pyrene	0.0167	0.012	0.27	1.4
GeoEngineers 2005	8/24/2004	MW-14	Benzo(k)fluoranthene	0.0268	1.2	0.57	<1

Table F-16
Chemicals Detected in Groundwater Samples
Seattle Parks and Recreation Westbridge Maintenance Facility

Source	Sample Date	Sample Location	Chemical	GW Conc'n (ug/L)	MTCA Cleanup Level[a] (ug/L)	GW-to-Sediment Screening Level[b] (ug/L)	Exceedance Factor
GeoEngineers 2004a	8/31/2000	MW-10	Chrysene	1.12	12	1.9	<1
GeoEngineers 2001	6/20/2000	MW-12	Chrysene	0.269	12	1.9	<1
GeoEngineers 2001	6/20/2000	MW-10	Chrysene	0.228	12	1.9	<1
GeoEngineers 2004a	7/30/2003	MW-10	Chrysene	0.101	12	1.9	<1
GeoEngineers 2004a	11/14/2003	MW-10	Chrysene	0.0789	12	1.9	<1
GeoEngineers 2004b	5/26/2004	MW-10	Chrysene	0.0634	12	1.9	<1
GeoEngineers 2005	11/29/2004	MW-10	Chrysene	0.0538	12	1.9	<1
GeoEngineers 2004a	2/20/2004	MW-10	Chrysene	0.0177	12	1.9	<1
GeoEngineers 2004a	8/31/2000	MW-10	cPAHs, total	1.32	0.012	0.27	110
GeoEngineers 2001	6/20/2000	MW-12	cPAHs, total	0.422	0.012	0.27	35
GeoEngineers 2001	6/20/2000	MW-10	cPAHs, total	0.38	0.012	0.27	32
GeoEngineers 2004a	7/30/2003	MW-10	cPAHs, total	0.17	0.012	0.27	14
GeoEngineers 2005	11/29/2004	MW-10	cPAHs, total	0.1431	0.012	0.27	12
GeoEngineers 2004a	11/14/2003	MW-10	cPAHs, total	0.1251	0.012	0.27	10
GeoEngineers 2004b	5/26/2004	MW-10	cPAHs, total	0.117	0.012	0.27	9.8
GeoEngineers 2004a	2/20/2004	MW-10	cPAHs, total	0.0177	0.012	0.27	1.5
GeoEngineers 2005	11/29/2004	MW-10	Dibenzo(a,h)anthracene	0.02	0.012	0.013	1.7
GeoEngineers 2001	5/5/2000	GP-1	Diesel-range hydrocarbons	10,700	500		21
GeoEngineers 2001	5/5/2000	GP-2	Diesel-range hydrocarbons	10,100	500		20
GeoEngineers 2001	6/20/2000	MW-9	Diesel-range hydrocarbons	9,080	500		18
GeoEngineers 2001	6/20/2000	MW-13	Diesel-range hydrocarbons	6,060	500		12
GeoEngineers 2001	6/20/2000	MW-12	Diesel-range hydrocarbons	4,300	500		8.6
GeoEngineers 2004a	4/3/2003	MW-9	Diesel-range hydrocarbons	4,200	500		8.4
GeoEngineers 2004a	7/29/2003	MW-9	Diesel-range hydrocarbons	3,660	500		7.3
GeoEngineers 2001	6/20/2000	MW-10	Diesel-range hydrocarbons	3,370	500		6.7
GeoEngineers 2005	8/24/2004	MW-9	Diesel-range hydrocarbons	2,200	500		4.4
GeoEngineers 2001	6/20/2000	MW-11	Diesel-range hydrocarbons	1,290	500		2.6
GeoEngineers 2004a	8/31/2000	MW-10	Diesel-range hydrocarbons	1,030	500		2.1
GeoEngineers 2005	11/29/2004	MW-9	Diesel-range hydrocarbons	993	500		2.0
GeoEngineers 2004a	7/30/2003	MW-10	Diesel-range hydrocarbons	442	500		<1
GeoEngineers 2001	6/20/2000	MW-14	Diesel-range hydrocarbons	320	500		<1
GeoEngineers 2005	8/24/2004	MW-10	Diesel-range hydrocarbons	253	500		<1
AGRA 1996	2/25/1993	MW-3	Ethylbenzene	1,800	700		2.6
GeoEngineers 2000a	1/10/2000	MW-9	Ethylbenzene	1,160	700		1.7
Law 1991	10/11/1991	MW-3	Ethylbenzene	630	700		<1

Table F-16
Chemicals Detected in Groundwater Samples
Seattle Parks and Recreation Westbridge Maintenance Facility

Source	Sample Date	Sample Location	Chemical	GW Conc'n (ug/L)	MTCA Cleanup Level[a] (ug/L)	GW-to-Sediment Screening Level[b] (ug/L)	Exceedance Factor
AGRA 1996	5/19/1993	MW-5	Ethylbenzene	170	700		<1
Law 1991	10/11/1991	MW-2	Ethylbenzene	25	700		<1
GeoEngineers 2001	6/20/2000	MW-10	Fluoranthene	0.152	640	17	<1
GeoEngineers 2001	6/20/2000	MW-12	Fluoranthene	0.134	640	17	<1
GeoEngineers 2001	6/20/2000	MW-12	Fluorene	2.4	640	7.0	<1
GeoEngineers 2001	6/20/2000	MW-11	Fluorene	1.89	640	7.0	<1
GeoEngineers 2001	6/20/2000	MW-10	Fluorene	1.48	640	7.0	<1
GeoEngineers 2004a	8/31/2000	MW-10	Fluorene	1.12	640	7.0	<1
GeoEngineers 2001	6/20/2000	MW-13	Fluorene	0.59	640	7.0	<1
GeoEngineers 2005	11/29/2004	MW-10	Fluorene	0.242	640	7.0	<1
GeoEngineers 2004b	5/26/2004	MW-10	Fluorene	0.239	640	7.0	<1
GeoEngineers 2004a	11/14/2003	MW-10	Fluorene	0.233	640	7.0	<1
GeoEngineers 2004a	7/30/2003	MW-10	Fluorene	0.223	640	7.0	<1
GeoEngineers 2004a	2/20/2004	MW-10	Fluorene	0.139	640	7.0	<1
GeoEngineers 2004a	8/31/2000	MW-9	Fluorene	0.101	640	7.0	<1
AGRA 1996	2/25/1993	MW-3	Gasoline-range hydrocarbons	69,000	800		86
Law 1991	10/11/1991	MW-3	Gasoline-range hydrocarbons	64,000	800		80
AGRA 1996	5/19/1993	MW-5	Gasoline-range hydrocarbons	3,800	800		4.8
AGRA 1996	5/25/1994	MW-5	Gasoline-range hydrocarbons	750	800		<1
AGRA 1996	8/25/1994	MW-6	Gasoline-range hydrocarbons	320	800		<1
GeoEngineers 2000a	1/10/2000	MW-9	Gasoline-range hydrocarbons	95.9	800		<1
AGRA 1996	5/25/1994	MW-6	Gasoline-range hydrocarbons	89	800		<1
AGRA 1996	5/25/1994	MW-4	Gasoline-range hydrocarbons	74.1	800		<1
GeoEngineers 2001	5/5/2000	GP-2	Heavy oil-range hydrocarbons	8,970	500		18
GeoEngineers 2001	5/5/2000	GP-2	Heavy oil-range hydrocarbons	7,630	500		15
GeoEngineers 2001	6/20/2000	MW-13	Heavy oil-range hydrocarbons	2,880	500		5.8
GeoEngineers 2001	6/20/2000	MW-12	Heavy oil-range hydrocarbons	2,750	500		5.5
GeoEngineers 2001	6/20/2000	MW-10	Heavy oil-range hydrocarbons	1,880	500		3.8
GeoEngineers 2004a	8/31/2000	MW-10	Heavy oil-range hydrocarbons	764	500		1.5
GeoEngineers 2004a	4/3/2003	MW-9	Heavy oil-range hydrocarbons	617	500		1.2
GeoEngineers 2004b	5/26/2004	MW-9	Naphthalene	1.66	160	92	<1
GeoEngineers 2004a	11/14/2003	MW-9	Naphthalene	0.639	160	92	<1
GeoEngineers 2001	6/20/2000	MW-12	Naphthalene	0.537	160	92	<1
GeoEngineers 2004a	7/29/2003	MW-9	Naphthalene	0.295	160	92	<1
GeoEngineers 2001	6/20/2000	MW-13	Naphthalene	0.267	160	92	<1

Table F-16
Chemicals Detected in Groundwater Samples
Seattle Parks and Recreation Westbridge Maintenance Facility

Source	Sample Date	Sample Location	Chemical	GW Conc'n (ug/L)	MTCA Cleanup Level[a] (ug/L)	GW-to-Sediment Screening Level[b] (ug/L)	Exceedance Factor
GeoEngineers 2001	6/20/2000	MW-9	Naphthalene	0.266	160	92	<1
GeoEngineers 2001	6/20/2000	MW-10	Naphthalene	0.209	160	92	<1
GeoEngineers 2004a	2/2/2004	MW-9	Naphthalene	0.143	160	92	<1
GeoEngineers 2001	6/20/2000	MW-12	Phenanthrene	2.82		23	<1
GeoEngineers 2001	6/20/2000	MW-10	Phenanthrene	1.58		23	<1
GeoEngineers 2004a	8/31/2000	MW-10	Phenanthrene	0.56		23	<1
GeoEngineers 2001	6/20/2000	MW-13	Phenanthrene	0.4		23	<1
GeoEngineers 2001	6/20/2000	MW-10	Pyrene	0.684	480	20	<1
GeoEngineers 2001	6/20/2000	MW-12	Pyrene	0.671	480	20	<1
GeoEngineers 2004a	8/31/2000	MW-10	Pyrene	0.6	480	20	<1
GeoEngineers 2004b	5/26/2004	MW-10	Pyrene	0.162	480	20	<1
GeoEngineers 2004a	11/14/2003	MW-10	Pyrene	0.148	480	20	<1
Law 1991	10/11/1991	MW-3	Toluene	18,000	640		28
AGRA 1996	2/25/1993	MW-3	Toluene	1,100	640		1.7
Law 1991	10/11/1991	MW-2	Toluene	41	640		<1
AGRA 1996	5/19/1993	MW-5	Toluene	2.1	640		<1
Law 1991	10/11/1991	MW-3	Xylenes, total	31,000	1,000		31
AGRA 1996	2/25/1993	MW-3	Xylenes, total	15,000	1,000		15
GeoEngineers 2000a	1/10/2000	MW-9	Xylenes, total	5,200	1,000		5.2
AGRA 1996	5/19/1993	MW-5	Xylenes, total	380	1,000		<1
Law 1991	10/11/1991	MW-2	Xylenes, total	76	1,000		<1

GW - Groundwater
ug/L - Micrograms per liter
MTCA - Model Toxics Control Act
CSL - Cleanup Screening Level from Washington Sediment Management Standards

a - The lower of MTCA Method A or B cleanup levels was selected, from CLARC database.
b - Based on CSL (SAIC 2006).
The MTCA Cleanup Level and Groundwater-to-Sediment Screening Value for cPAHs, total are based on Benzo(a)pyrene.
Table presents detected chemicals only.
Exceedance factors are the ratio of the detected concentration to the MTCA Cleanup Level or Groundwater-to-Sediment Screening Value, whichever is lower.
Chemicals and samples with exceedance factors greater than 1 are shaded light yellow.

Table F-17
Chemicals Detected in Groundwater Samples
Former Central Painting

Source	Sample Date	Sample Location	Chemical	GW Conc'n (ug/L)	MTCA Cleanup Level[a] (ug/L)	GW-to-Sediment Screening Level[b] (ug/L)	Exceedance Factor
Shannon & Wilson 1989d	11/13/1989	MW-1	Arsenic	6	0.0583	370	103
Shannon & Wilson 1989b	4/24/1989	MW-1	Barium	180		3,200	<1
Shannon & Wilson 1989d	8/1/1989	MW-2	Barium	180		3,200	<1
Shannon & Wilson 1989d	11/13/1989	MW-2	Barium	180		3,200	<1
Shannon & Wilson 1989b	4/24/1989	MW-2	Barium	170 D		3,200	<1
Shannon & Wilson 1989d	11/13/1989	MW-1	Barium	170		3,200	<1
Shannon & Wilson 1989d	11/13/1989	MW-1	Barium	160		3,200	<1
Shannon & Wilson 1989b	4/24/1989	MW-2	Barium	140		3,200	<1
Shannon & Wilson 1989d	8/1/1989	MW-1	Barium	140		3,200	<1
Shannon & Wilson 1989d	11/13/1989	MW-1	Cadmium	0.4	5	3.4	<1
Shannon & Wilson 1989d	11/13/1989	MW-1	Cadmium	0.3 D	5	3.4	<1
Shannon & Wilson 1989b	1/30/1989	MW-2	Nickel	80			
Shannon & Wilson 1989b	1/30/1989	MW-1	Nickel	70			
Shannon & Wilson 1989d	8/1/1989	MW-1	Silver	80	80	1.5	53
Shannon & Wilson 1989d	8/1/1989	MW-2	Silver	80	80	1.5	53
Shannon & Wilson 1989b	1/30/1989	MW-1	Tetrachloroethylene	13		5	2.6
Shannon & Wilson 1989b	1/30/1989	MW-1	Tetrachloroethylene	12 D		5	2.4
Shannon & Wilson 1989d	11/13/1989	MW-1	Tetrachloroethylene	6 D		5	1.2
Shannon & Wilson 1989b	4/24/1989	MW-1	Tetrachloroethylene	5		5	1.0
Shannon & Wilson 1989d	8/1/1989	MW-1	Tetrachloroethylene	5		5	1.0
Shannon & Wilson 1989d	11/13/1989	MW-1	Tetrachloroethylene	5		5	1.0
Shannon & Wilson 1989b	1/30/1989	MW-2	Tetrachloroethylene	4		5	<1
Shannon & Wilson 1989b	4/24/1989	MW-2	Tetrachloroethylene	2		5	<1
Shannon & Wilson 1989b	4/24/1989	MW-2	Tetrachloroethylene	2 D		5	<1
Shannon & Wilson 2004	6/23/2004	MW-1	Tetrachloroethylene	1.2		5	<1
Shannon & Wilson 1989d	8/1/1989	MW-2	Tetrachloroethylene	1		5	<1
Shannon & Wilson 2004	6/23/2004	MW-2	Tetrachloroethylene	0.23		5	<1
Shannon & Wilson 1989d	4/24/1989	MW-2	Toluene	1	640		<1
Shannon & Wilson 1989b	4/24/1989	MW-2	Toluene	1 D	640		<1
Shannon & Wilson 1989b	1/30/1989	MW-2	Trichloroethylene	63		5	13
Shannon & Wilson 1989d	11/13/1989	MW-2	Trichloroethylene	60		5	12
Shannon & Wilson 1989d	8/1/1989	MW-2	Trichloroethylene	37		5	7.4
Shannon & Wilson 1989b	4/24/1989	MW-2	Trichloroethylene	23		5	4.6
Shannon & Wilson 1989b	4/24/1989	MW-2	Trichloroethylene	23 D		5	4.6
Shannon & Wilson 1989b	1/30/1989	MW-1	Trichloroethylene	6		5	1.2

Table F-17
Chemicals Detected in Groundwater Samples
Former Central Painting

Source	Sample Date	Sample Location	Chemical	GW Conc'n (ug/L)	MTCA Cleanup Level[a] (ug/L)	GW-to-Sediment Screening Level[b] (ug/L)	Exceedance Factor
Shannon & Wilson 1989b	1/30/1989	MW-1	Trichloroethylene	6 D		5	1.2
Shannon & Wilson 1989b	4/24/1989	MW-1	Trichloroethylene	4		5	<1
Shannon & Wilson 1989d	8/1/1989	MW-1	Trichloroethylene	2		5	<1
Shannon & Wilson 2004	6/23/2004	MW-2	Trichloroethylene	0.82		5	<1
Shannon & Wilson 1989b	1/30/1989	MW-2	Zinc	70	4,800	76	<1
Shannon & Wilson 1989d	11/13/1989	MW-1	Zinc	70	4,800	76	<1
Shannon & Wilson 1989d	11/13/1989	MW-1	Zinc	70 D	4,800	76	<1
Shannon & Wilson 1989d	11/13/1989	MW-2	Zinc	70	4,800	76	<1
Shannon & Wilson 1989b	1/30/1989	MW-1	Zinc	60 D	4,800	76	<1
Shannon & Wilson 1989b	1/30/1989	MW-1	Zinc	60	4,800	76	<1
Shannon & Wilson 1989b	4/24/1989	MW-1	Zinc	30	4,800	76	<1
Shannon & Wilson 1989b	4/24/1989	MW-2	Zinc	20 D	4,800	76	<1
Shannon & Wilson 1989b	4/24/1989	MW-2	Zinc	20	4,800	76	<1

GW - Groundwater
ug/L - Micrograms per liter
MTCA - Model Toxics Control Act
CSL - Cleanup Screening Level from Washington Sediment Management Standards
D - Duplicate sample

a - The lower of MTCA Method A or B cleanup levels was selected, from CLARC database.
b - Based on CSL (SAIC 2006).
Table presents detected chemicals only.
Exceedance factors are the ratio of the detected concentration to the MTCA Cleanup Level or Groundwater-to-Sediment Screening Value, whichever is lower.
Chemicals and samples with exceedance factors greater than 1 are shaded light yellow.

Table F-18
Chemicals Detected in Soil Samples
South Seattle Community College

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor	UST #
Converse 1994	4/14/1994	1434-FL-8	8	Benzene	0.22	0.03		7.3	143-3F & 4F UST
Converse 1994	4/23/1994	1303-NW2-9	7	Benzene	0.14	0.03		4.7	130-3F, 4F, & 9D UST
Converse 1994	4/23/1994	1304-NW-7	17	Benzene	0.12	0.03		4.0	130-3F, 4F, & 9D UST
Converse 1994	12/30/1993	130-FL-9	9	Benzene	0.1	0.03		3.3	130-1F, 2F & 8D
Converse 1994	4/21/1994	1303-FL-12.5	12.5	Benzene	0.095	0.03		3.2	130-3F, 4F, & 9D UST
Converse 1994	4/14/1994	143-WW-5	5	Benzene	0.095	0.03		3.2	143-3F & 4F UST
Converse 1994	4/20/1994	1303-WW-7	7	Benzene	0.055	0.03		1.8	130-3F, 4F, & 9D UST
Converse 1994	3/1/1994	HST-127EW-8	8.0	Diesel-range hydrocarbons	5,500	2,000		2.8	Hoist East
Converse 1994	3/1/1994	HST-127WE-8	8	Diesel-range hydrocarbons	5,100	2,000		2.6	Hoist West
Converse 1994	3/1/1994	HST-127SE-8	8	Diesel-range hydrocarbons	3,800	2,000		1.9	Hoist South
Converse 1994	3/1/1994	HST-127EE-8	8	Diesel-range hydrocarbons	1,700	2,000		<1	Hoist East
Converse 1994	3/2/1994	HST-127WW-8	8	Diesel-range hydrocarbons	1,200	2,000		<1	Hoist West
Converse 1994	1/7/1994	130-EW-5	5.0	Diesel-range hydrocarbons	940	2,000		<1	130-1F, 2F & 8D
Converse 1994	3/1/1994	HST-127NE2-7	7	Diesel-range hydrocarbons	340	2,000		<1	Hoist North
Converse 1994	3/1/1994	HST-127SW-8	8	Diesel-range hydrocarbons	260	2,000		<1	Hoist South
Converse 1994	2/24/1994	OWS-FL-11	11	Diesel-range hydrocarbons	110	2,000		<1	Western Oil /Water Seperator Excavation
Converse 1994	1/12/1994	127-FL-7	7.0	Diesel-range hydrocarbons	74	2,000		<1	127-1D UST
Converse 1994	4/13/1994	1432-NW-7	7	Diesel-range hydrocarbons	48	2,000		<1	143-2F UST
Converse 1994	1/3/1994	130-WW-6	6.0	Diesel-range hydrocarbons	37	2,000		<1	130-1F, 2F & 8D
Converse 1994	1/12/1994	128-EW-6	6.0	Diesel-range hydrocarbons	32	2,000		<1	128-EW-6
Converse 1994	4/20/1994	1303-SW-7	7	Diesel-range hydrocarbons	32	2,000		<1	130-3F, 4F, & 9D UST
Converse 1994	12/30/1993	130-FL-9	9	Diesel-range hydrocarbons	31	2,000		<1	130-1F, 2F & 8D
Converse 1994	4/23/1994	130-PIPINGM2-7	7	Diesel-range hydrocarbons	12	2,000		<1	130-3F, 4F, & 9D UST
Converse 1994	1/7/1994	130-EW-5	5	Ethylbenzene	3	6		<1	130-1F, 2F & 8D
Converse 1994	4/14/1994	1434-FL-8	8	Ethylbenzene	0.39	6		<1	143-3F & 4F UST
Converse 1994	12/30/1993	130-FL-9	9	Ethylbenzene	0.28	6		<1	130-1F, 2F & 8D
Converse 1994	2/24/1994	OWS-FL-11	11	Ethylbenzene	0.13	6		<1	Western Oil /Water Seperator Excavation
Converse 1994	4/20/1994	1303-WW-7	7	Ethylbenzene	0.11	6		<1	130-3F, 4F, & 9D UST
Converse 1994	4/23/1994	1303-NW2-9	7	Ethylbenzene	0.094	6		<1	130-3F, 4F, & 9D UST
Converse 1994	4/20/1994	1303-SW-7	7	Ethylbenzene	0.094	6		<1	130-3F, 4F, & 9D UST
Converse 1994	4/23/1994	1304-NW-7	17	Ethylbenzene	0.041	6		<1	130-3F, 4F, & 9D UST
Converse 1994	4/21/1994	1303-FL-12.5	12.5	Ethylbenzene	0.034	6		<1	130-3F, 4F, & 9D UST
Converse 1994	1/7/1994	130-EW-5	5	Gasoline-range hydrocarbons	4,500	30		150	130-1F, 2F & 8D
Converse 1994	2/24/1994	OWS-FL-11	11	Gasoline-range hydrocarbons	83	30		2.8	Western Oil /Water Seperator Excavation
Converse 1994	12/30/1993	130-FL-9	9	Gasoline-range hydrocarbons	63	30		2.1	130-1F, 2F & 8D
Converse 1994	4/14/1994	1434-FL-8	8	Gasoline-range hydrocarbons	47	30		1.6	143-3F & 4F UST
Converse 1994	4/20/1994	1303-SW-7	7	Gasoline-range hydrocarbons	31	30		1.0	130-3F, 4F, & 9D UST
Converse 1994	4/20/1994	1303-WW-7	7	Gasoline-range hydrocarbons	15	30		<1	130-3F, 4F, & 9D UST

Table F-18
Chemicals Detected in Soil Samples
South Seattle Community College

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor	UST #
Converse 1994	3/1/1994	HST-127WE-8	8	Gasoline-range hydrocarbons	12	30		<1	Hoist West
Converse 1994	4/23/1994	130-PIPINGM2-7	7.0	Gasoline-range hydrocarbons	11	30		<1	130-3F, 4F, & 9D UST
Converse 1994	4/21/1994	1303-FL-12.5	12.5	Gasoline-range hydrocarbons	10	30		<1	130-3F, 4F, & 9D UST
Converse 1994	4/14/1994	143-NW-5.5	5.5	Gasoline-range hydrocarbons	9	30		<1	143-3F & 4F UST
Converse 1994	3/1/1994	HST-127EW-8	8	Heavy oil-range hydrocarbons	10,000	2,000		5.0	Hoist East
Converse 1994	3/1/1994	HST-127WE-8	8	Heavy oil-range hydrocarbons	7,900	2,000		4.0	Hoist West
Converse 1994	3/1/1994	HST-127SE-8	8	Heavy oil-range hydrocarbons	6,300	2,000		3.2	Hoist South
Converse 1994	3/1/1994	HST-127EE-8	8	Heavy oil-range hydrocarbons	2,800	2,000		1.4	Hoist East
Converse 1994	3/2/1994	HST-127WW-8	8	Heavy oil-range hydrocarbons	1,900	2,000		<1	Hoist West
Converse 1994	3/1/1994	HST-127NE2-7	7	Heavy oil-range hydrocarbons	620	2,000		<1	Hoist North
Converse 1994	3/1/1994	HST-127SW-8	8	Heavy oil-range hydrocarbons	330	2,000		<1	Hoist South
Converse 1994	1/12/1994	127-WW-4	7.0	Heavy oil-range hydrocarbons	170	2,000		<1	127-1D UST
Converse 1994	2/24/1994	OWS-FL-11	11	Heavy oil-range hydrocarbons	170	2,000		<1	Western Oil /Water Seperator Excavation
Converse 1994	1/12/1994	128-EW-6	6.0	Heavy oil-range hydrocarbons	140	2,000		<1	128-EW-6
Converse 1994	1/4/1994	130-WW-6	6.0	Heavy oil-range hydrocarbons	140	2,000		<1	130-1F, 2F & 8D
Converse 1994	12/30/1993	103-FL-9	9	Heavy oil-range hydrocarbons	63	2,000		<1	130-1F, 2F & 8D
Converse 1994	4/14/1994	143-NW-5.5	5.5	Lead	40	250	67	<1	143-3F & 4F UST
Converse 1994	4/13/1994	143-EW-6	6	Lead	33	250	67	<1	143-3F & 4F UST
Converse 1994	4/14/1994	143-SW2-6	6	Lead	30	250	67	<1	143-3F & 4F UST
Converse 1994	4/14/1994	1434-FL-8	8	Lead	25	250	67	<1	143-3F & 4F UST
Converse 1994	4/14/1994	1433-FL-8	8	Lead	23	250	67	<1	143-3F & 4F UST
Converse 1994	4/14/1994	143-WW-5	5	Lead	12	250	67	<1	143-3F & 4F UST
Converse 1994	1/7/1994	130-EW-5	5	Toluene	6.1	7		<1	130-1F, 2F & 8D
Converse 1994	4/14/1994	1434-FL-8	8	Toluene	1.4	7		<1	143-3F & 4F UST
Converse 1994	12/30/1993	130-FL-9	9	Toluene	1.1	7		<1	130-1F, 2F & 8D
Converse 1994	4/14/1994	1433-FL-8	8	Toluene	0.052	7		<1	143-3F & 4F UST
Converse 1994	2/24/1994	OWS-FL-11	11	Toluene	0.046	7		<1	Western Oil /Water Seperator Excavation
Converse 1994	4/23/1994	1303-NW2-9	7	Toluene	0.042	7		<1	130-3F, 4F, & 9D UST
Converse 1994	4/20/1994	1303-SW-7	7	Toluene	0.037	7		<1	130-3F, 4F, & 9D UST
Converse 1994	4/23/1994	1304-NW-7	17	Toluene	0.036	7		<1	130-3F, 4F, & 9D UST
Converse 1994	4/23/1994	130-PIPINGM2-7	7.0	Toluene	0.028	7		<1	130-3F, 4F, & 9D UST
Converse 1994	1/7/1994	130-EW-5	5	Xylenes, total	210	9		23	130-1F, 2F & 8D
Converse 1994	4/14/1994	1434-FL-8	8	Xylenes, total	3.1	9		<1	143-3F & 4F UST
Converse 1994	12/30/1993	130-FL-9	9	Xylenes, total	1.9	9		<1	130-1F, 2F & 8D
Converse 1994	4/20/1994	1303-WW-7	7	Xylenes, total	0.56	9		<1	130-3F, 4F, & 9D UST
Converse 1994	2/24/1994	OWS-FL-11	11	Xylenes, total	0.23	9		<1	Western Oil /Water Seperator Excavation
Converse 1994	4/20/1994	1303-SW-7	7	Xylenes, total	0.21	9		<1	130-3F, 4F, & 9D UST
Converse 1994	4/21/1994	1303-FL-12.5	12.5	Xylenes, total	0.13	9		<1	130-3F, 4F, & 9D UST

Table F-18
Chemicals Detected in Soil Samples
South Seattle Community College

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor	UST #
Converse 1994	4/23/1994	1303-NW2-9	7	Xylenes, total	0.13	9		<1	130-3F, 4F, & 9D UST
Converse 1994	4/23/1994	1304-NW-7	17	Xylenes, total	0.12	9		<1	130-3F, 4F, & 9D UST
Converse 1994	4/23/1994	130-PIPINGM2-7	7.0	Xylenes, total	0.077	9		<1	130-3F, 4F, & 9D UST
Converse 1994	4/14/1994	143-NW-5.5	5.5	Xylenes, total	0.046	9		<1	143-3F & 4F UST
Converse 1994	414/94	130-JET-EW-6	6	Xylenes, total	0.044	9		<1	130-5F, 6F & 7F UST
Converse 1994	4/13/1994	143-EW-6	6	Xylenes, total	0.044	9		<1	143-3F & 4F UST
Converse 1994	4/23/1994	1304-FL-11	11	Xylenes, total	0.041	9		<1	130-3F, 4F, & 9D UST
Converse 1994	4/14/1994	143-WW-5	5	Xylenes, total	0.031	9		<1	143-3F & 4F UST

ft bgs - Feet below ground surface
mg/kg - Milligrams per kilogram
MTCA - Model Toxics Control Act
CSL - Cleanup Screening Level from Washington Sediment Management Standards

a - The lower of MTCA Method A or B cleanup levels was selected, from CLARC database.
b - Based on CSL. Where two screening levels are listed for a single chemical, the higher screening levels are for soil samples collected from the vadose zone and the lower screening levels are for soil samples collected from the saturated zone (SAIC 2006).
Depth to groundwater is approximately 2.5 to 6.5 ft bgs. CSL screening levels for 130-1F, 2F, & 8D excavation samples are based on the minimum observed groundwater elevation of 5.5 ft bgs.
CSL screening levels for all other soil samples at the site are based on a minimum groundwater elevation of 2.5 ft bgs.
Table presents detected chemicals only.
Exceedance factors are the ratio of the detected concentration to the MTCA Cleanup Level or Soil-to-Sediment Screening Level, whichever is lower.
Chemicals and samples with exceedance factors greater than 1 are shaded light yellow.

Table F-19
Chemicals Detected in Groundwater Samples
South Seattle Community College

Source	Sample Date	Sample Location	Chemical	GW Conc'n (ug/L)	MTCA Cleanup Level[a] (ug/L)	Exceedance Factor
Converse 1994	1/4/1994	OIL/H2O SEP-GW	Gasoline-range hydrocarbons	160	800	<1
Converse 1994	1/4/1994	OIL/H2O SEP-GW	Toluene	2.7	640	<1
Converse 1994	1/4/1994	OIL/H2O SEP-GW	Xylenes, total	17	1,000	<1

GW - Groundwater
ug/L - Micrograms per liter
MTCA - Model Toxics Control Act

a - The lower of MTCA Method A or B cleanup levels was selected, from CLARC database
Table presents detected chemicals only.
Exceedance factors are the ratio of the detected concentration to the MTCA Cleanup Level.

Table F-20
Chemicals Detected in Seep and Creek Water Samples
Puget Park

Source	Sample Location	Date Sampled	Chemical	Seep and Creek Water Conc'n (ug/L)	Marine Chronic WQS[a] (ug/L)	Marine Acute WQS[b] (ug/L)	Chronic WQS Exceedance Factor	GW-to-Sediment Screening Level[c] (ug/L)	Exceedance Factor
Seattle Parks 1993	1A	5/14/1993	Arsenic	66	36	69	1.8	370	<1
Seattle Parks 1993	2A	5/14/1993	Arsenic	59	36	69	1.6	370	<1
Geo Group 2003a	A3-Out	6/25/1999	Arsenic	29 T	36	69	<1	370	<1
Geo Group 2003a	A3-SE	6/25/1999	Arsenic	21 Ds	36	69	<1	370	<1
Geo Group 2003a	A3-Out	6/30/1998	Arsenic	10 T	36	69	<1	370	<1
Geo Group 2003a	A3-Out	6/30/1998	Arsenic	10 Ds	36	69	<1	370	<1
Geo Group 2003a	A3-Out	6/25/1999	Arsenic	8.8 Ds	36	69	<1	370	<1
Geo Group 2003a	A1-Out	6/25/1999	Arsenic	6.7 T	36	69	<1	370	<1
Geo Group 2003a	A3-SE	6/30/1998	Arsenic	6.3 T	36	69	<1	370	<1
Geo Group 2003a	A3-In	6/30/1998	Arsenic	6.1 T	36	69	<1	370	<1
Geo Group 2003a	A3-In	6/25/1999	Arsenic	5.4 Ds	36	69	<1	370	<1
Geo Group 2003a	A3-In	6/25/1999	Arsenic	5.0 T	36	69	<1	370	<1
Geo Group 2003a	A1-Out	6/30/1998	Arsenic	4.4 T	36	69	<1	370	<1
Geo Group 2003a	A1-Out	6/30/1998	Arsenic	4.3 Ds	36	69	<1	370	<1
Geo Group 2003a	A3-SE	6/25/1999	Arsenic	4 T	36	69	<1	370	<1
Geo Group 2003a	A3-SE	6/30/1998	Arsenic	3.8 Ds	36	69	<1	370	<1
Geo Group 2003a	A3-In	6/30/1998	Arsenic	3.3 Ds	36	69	<1	370	<1
Geo Group 2003a	Stream 3	6/30/1998	Arsenic	3.1 Ds	36	69	<1	370	<1
Geo Group 2003a	Stream 2	6/30/1998	Arsenic	2.6 T	36	69	<1	370	<1
Geo Group 2003a	Stream 3	6/30/1998	Arsenic	2.5 T	36	69	<1	370	<1
Geo Group 2003a	Stream 3	6/25/1999	Arsenic	2.5 T	36	69	<1	370	<1
Geo Group 2003a	Stream 2	6/30/1998	Arsenic	2.4 Ds	36	69	<1	370	<1
Geo Group 2003a	Stream 2	6/25/1999	Arsenic	2.1 T	36	69	<1	370	<1
Geo Group 2003a	A1-Out	6/25/1999	Lead	200,000 T	8.1	210	24,691	13	15,385
Hart Crowser 1996	PP-Seep	8/29/1996	Lead	1,300 T	8.1	210	160	13	100
Hart Crowser 1996	PP-Seep-2	10/4/1996	Lead	1,300 T	8.1	210	160	13	100
Hart Crowser 1996	PP-Seep-2	10/4/1996	Lead	1,100 Ds	8.1	210	136	13	85
Hart Crowser 1996	PP-Seep	8/29/1996	Lead	1,000 Ds	8.1	210	123	13	77
Geo Group 2003a	A3-SE	6/30/1998	Lead	540 T	8.1	210	67	13	42
Geo Group 2003a	A3-Out	6/25/1999	Lead	340 T	8.1	210	42	13	26
Geo Group 2003a	A3-SE	6/25/1999	Lead	270 T	8.1	210	33	13	21
Geo Group 2003a	A3-In	6/30/1998	Lead	93 T	8.1	210	11	13	7.2
Geo Group 2003a	A3-SE	6/25/1999	Lead	58 Ds	8.1	210	7.2	13	4.5
Geo Group 2003a	A3-In	6/25/1999	Lead	56 T	8.1	210	6.9	13	4.3

Table F-20
Chemicals Detected in Seep and Creek Water Samples
Puget Park

Source	Sample Location	Date Sampled	Chemical	Seep and Creek Water Conc'n (ug/L)	Marine Chronic WQS[a] (ug/L)	Marine Acute WQS[b] (ug/L)	Chronic WQS Exceedance Factor	GW-to-Sediment Screening Level[c] (ug/L)	Exceedance Factor
Geo Group 2003a	A3-Out	6/30/1998	Lead	26 T	8.1	210	3.2	13	2.0
Geo Group 2003a	A3-Out	6/30/1998	Lead	12 Ds	8.1	210	1.5	13	<1
Geo Group 2003a	A1-Out	6/30/1998	Lead	5.7 T	8.1	210	<1	13	<1
Geo Group 2003a	A1-Out	6/25/1999	Lead	3.8 Ds	8.1	210	<1	13	<1
Hart Crowser 1997a	SW-1	7/25/1997	Lead	3.7 T	8.1	210	<1	13	<1
Geo Group 2003a	A3-In	6/25/1999	Lead	2.9 Ds	8.1	210	<1	13	<1
Geo Group 2003a	A1-Out	6/30/1998	Lead	2.2 Ds	8.1	210	<1	13	<1
Geo Group 2003a	A3-Out	6/25/1999	Lead	1.4 Ds	8.1	210	<1	13	<1
Geo Group 2003a	Stream 3	6/30/1998	Lead	0.75 T	8.1	210	<1	13	<1
Seattle Parks 1993	1A	5/14/1993	Mercury	0.9	0.025	1.8	36	0.0074	122
Seattle Parks 1993	2A	5/14/1993	Mercury	0.3	0.025	1.8	12	0.0074	41
Seattle Parks 1993	2A	5/14/1993	Selenium	30					
Seattle Parks 1993	1A	5/14/1993	Selenium	20					

ug/L - Microgram per liter
WQS - Water Quality Standards
GW - Groundwater
CSL - Cleanup Screening Level from Washington Sediment Management Standards
Ds - Dissolved metal
T - Total metal

a - The lower of the ARARS for Surface Water Aquatic Life (Marine/Chronic) were selected from CLARC database
b - The lower of the ARARS for Surface Water Aquatic Life (Marine/Acute) were selected from CLARC database
c - Based on CSL (SAIC 2006).
Table presents detected chemicals only.
Exceedance factors are the ratio of the detected concentrations to the minimum screening level availbe in the WA State CLARC database, exceedance factors are shown only if they are greater than 1.
Chemicals and samples with exceedance factors greater than 1 are shaded light yellow.

Table F-21
Chemicals Detected in Cement Kiln Dust Soil Samples
The McFarland Property

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	CKD Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
RZA AGRA 1994a	6/21/1994	8+63-11W	0.5	Arsenic	440	0.67	590	657
RZA AGRA 1994a	6/21/1994	9+49-10W	0.5	Arsenic	390	0.67	590	582
RZA AGRA 1994a	6/21/1994	10+19	1.5	Arsenic	370	0.67	590	552
RZA AGRA 1994a	6/21/1994	9+35-15E	0.4	Arsenic	360	0.67	590	537
RZA AGRA 1994a	6/21/1994	9+25	1.5	Arsenic	330	0.67	590	493
RZA AGRA 1994a	6/21/1994	9+25	4.0	Arsenic	330	0.67	590	493
RZA AGRA 1994a	6/21/1994	9+08-26W	0.3	Arsenic	320	0.67	590	478
RZA AGRA 1994a	6/21/1994	8+50	2.5	Arsenic	230	0.67	590	343
RZA AGRA 1994a	6/21/1994	Mayer - 2	2.5	Arsenic	150	0.67	590	224
RZA AGRA 1994a	6/21/1994	7+75	4.0	Arsenic	150	0.67	590	224
RZA AGRA 1994a	6/21/1994	Mayer - 3	3.0	Arsenic	140	0.67	590	209
RZA AGRA 1994a	6/21/1994	7+50	0.5	Arsenic	130	0.67	590	194
RZA AGRA 1994a	6/21/1994	8+10-13W	0.4	Arsenic	120	0.67	590	179
RZA AGRA 1994a	6/21/1994	Mayer - 4	1.5	Arsenic	14	0.67	590	21
RZA AGRA 1994a	6/21/1994	7+00	4.0	Arsenic	12	0.67	590	18
RZA AGRA 1994a	6/21/1994	Mayer - 5	1.5	Arsenic	9.3	0.67	590	14
RZA AGRA 1994a	6/21/1994	Mayer - 4	1.5	Barium	160	16,000		<1
RZA AGRA 1994a	6/21/1994	7+75	4.0	Barium	130	16,000		<1
RZA AGRA 1994a	6/21/1994	10+19	1.5	Barium	120	16,000		<1
RZA AGRA 1994a	6/21/1994	8+63-11W	0.5	Barium	120	16,000		<1
RZA AGRA 1994a	6/21/1994	9+08-26W	0.3	Barium	120	16,000		<1
RZA AGRA 1994a	6/21/1994	9+49-10W	0.5	Barium	120	16,000		<1
RZA AGRA 1994a	6/21/1994	9+25	1.5	Barium	110	16,000		<1
RZA AGRA 1994a	6/21/1994	9+25	4.0	Barium	110	16,000		<1
RZA AGRA 1994a	6/21/1994	9+35-15E	0.4	Barium	110	16,000		<1
RZA AGRA 1994a	6/21/1994	8+50	2.5	Barium	93	16,000		<1
RZA AGRA 1994a	6/21/1994	8+10-13W	0.4	Barium	86	16,000		<1
RZA AGRA 1994a	6/21/1994	Mayer - 2	2.5	Barium	74	16,000		<1
RZA AGRA 1994a	6/21/1994	7+00	4.0	Barium	66	16,000		<1
RZA AGRA 1994a	6/21/1994	7+50	0.5	Barium	57	16,000		<1
RZA AGRA 1994a	6/21/1994	Mayer - 5	1.5	Barium	46	16,000		<1
RZA AGRA 1994a	6/21/1994	Mayer - 3	3.0	Barium	39	16,000		<1
RZA AGRA 1994a	6/21/1994	8+63-11W	0.5	Cadmium	13	2	1.7	7.6
RZA AGRA 1994a	6/21/1994	9+49-10W	0.5	Cadmium	12	2	1.7	7.1
RZA AGRA 1994a	6/21/1994	9+25	1.5	Cadmium	10	2	1.7	5.9
RZA AGRA 1994a	6/21/1994	9+35-15E	0.4	Cadmium	9.6	2	1.7	5.6
RZA AGRA 1994a	6/21/1994	10+19	1.5	Cadmium	8.8	2	1.7	5.2

Table F-21
Chemicals Detected in Cement Kiln Dust Soil Samples
The McFarland Property

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	CKD Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
RZA AGRA 1994a	6/21/1994	9+25	4.0	Cadmium	8.6	2	1.7	5.1
RZA AGRA 1994a	6/21/1994	9+08-26W	0.3	Cadmium	8.4	2	1.7	4.9
RZA AGRA 1994a	6/21/1994	8+50	2.5	Cadmium	7.3	2	1.7	4.3
RZA AGRA 1994a	6/21/1994	7+75	4.0	Cadmium	5.4	2	1.7	3.2
RZA AGRA 1994a	6/21/1994	7+50	0.5	Cadmium	5.2	2	1.7	3.1
RZA AGRA 1994a	6/21/1994	8+10-13W	0.4	Cadmium	4.7	2	1.7	2.8
RZA AGRA 1994a	6/21/1994	Mayer - 4	1.5	Cadmium	3.2	2	1.7	1.9
RZA AGRA 1994a	6/21/1994	Mayer - 3	3.0	Cadmium	3.2	2	1.7	1.9
RZA AGRA 1994a	6/21/1994	Mayer - 2	2.5	Cadmium	3.1	2	1.7	1.8
RZA AGRA 1994a	6/21/1994	7+00	4.0	Cadmium	2.1	2	1.7	1.2
RZA AGRA 1994a	6/21/1994	Mayer - 5	1.5	Cadmium	1.7	2	1.7	1.0
RZA AGRA 1994a	6/21/1994	Mayer - 4	1.5	Chromium	70	2,000	270	<1
RZA AGRA 1994a	6/21/1994	7+00	4.0	Chromium	35	2,000	270	<1
RZA AGRA 1994a	6/21/1994	Mayer - 5	1.5	Chromium	29	2,000	270	<1
RZA AGRA 1994a	6/21/1994	8+10-13W	0.4	Chromium	27	2,000	270	<1
RZA AGRA 1994a	6/21/1994	7+75	4.0	Chromium	21	2,000	270	<1
RZA AGRA 1994a	6/21/1994	8+63-11W	0.5	Chromium	15	2,000	270	<1
RZA AGRA 1994a	6/21/1994	8+50	2.5	Chromium	14	2,000	270	<1
RZA AGRA 1994a	6/21/1994	Mayer - 3	3.0	Chromium	14	2,000	270	<1
RZA AGRA 1994a	6/21/1994	9+08-26W	0.3	Chromium	13	2,000	270	<1
RZA AGRA 1994a	6/21/1994	7+50	0.5	Chromium	13	2,000	270	<1
RZA AGRA 1994a	6/21/1994	Mayer - 2	2.5	Chromium	13	2,000	270	<1
RZA AGRA 1994a	6/21/1994	9+35-15E	0.4	Chromium	12	2,000	270	<1
RZA AGRA 1994a	6/21/1994	9+49-10W	0.5	Chromium	12	2,000	270	<1
RZA AGRA 1994a	6/21/1994	9+25	4.0	Chromium	12	2,000	270	<1
RZA AGRA 1994a	6/21/1994	10+19	1.5	Chromium	11	2,000	270	<1
RZA AGRA 1994a	6/21/1994	9+25	1.5	Chromium	10	2,000	270	<1
RZA AGRA 1994a	6/21/1994	8+63-11W	0.5	Lead	3,600	250	67	54
RZA AGRA 1994a	6/21/1994	9+49-10W	0.5	Lead	3,500	250	67	52
RZA AGRA 1994a	6/21/1994	9+35-15E	0.4	Lead	3,100	250	67	46
RZA AGRA 1994a	6/21/1994	9+25	1.5	Lead	3,000	250	67	45
RZA AGRA 1994a	6/21/1994	9+25	4.0	Lead	2,600	250	67	39
RZA AGRA 1994a	6/21/1994	10+19	1.5	Lead	2,500	250	67	37
RZA AGRA 1994a	6/21/1994	9+08-26W	0.3	Lead	2,200	250	67	33
RZA AGRA 1994a	6/21/1994	8+50	2.5	Lead	1,800	250	67	27
RZA AGRA 1994a	6/21/1994	7+75	4.0	Lead	1,400	250	67	21
RZA AGRA 1994a	6/21/1994	7+50	0.5	Lead	980	250	67	15

Table F-21
Chemicals Detected in Cement Kiln Dust Soil Samples
The McFarland Property

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	CKD Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
RZA AGRA 1994a	6/21/1994	8+10-13W	0.4	Lead	920	250	67	14
RZA AGRA 1994a	6/21/1994	Mayer - 2	2.5	Lead	890	250	67	13
RZA AGRA 1994a	6/21/1994	Mayer - 3	3.0	Lead	880	250	67	13
RZA AGRA 1994a	6/21/1994	Mayer - 5	1.5	Lead	34	250	67	<1
RZA AGRA 1994a	6/21/1994	7+00	4.0	Lead	13	250	67	<1
RZA AGRA 1994a	6/21/1994	Mayer - 4	1.5	Lead	12	250	67	<1
RZA AGRA 1994a	6/21/1994	7+50	0.5	Mercury	0.13	2	0.03	4.3
RZA AGRA 1994a	6/21/1994	8+63-11W	0.5	Silver	10	400	0.61	16
RZA AGRA 1994a	6/21/1994	9+49-10W	0.5	Silver	9.8	400	0.61	16
RZA AGRA 1994a	6/21/1994	9+35-15E	0.4	Silver	9	400	0.61	15
RZA AGRA 1994a	6/21/1994	9+25	1.5	Silver	8.5	400	0.61	14
RZA AGRA 1994a	6/21/1994	10+19	1.5	Silver	8.3	400	0.61	14
RZA AGRA 1994a	6/21/1994	9+25	4.0	Silver	8.3	400	0.61	14
RZA AGRA 1994a	6/21/1994	9+08-26W	0.3	Silver	7.6	400	0.61	12
RZA AGRA 1994a	6/21/1994	7+75	4.0	Silver	6.4	400	0.61	10
RZA AGRA 1994a	6/21/1994	8+50	2.5	Silver	6.1	400	0.61	10
RZA AGRA 1994a	6/21/1994	Mayer - 3	3.0	Silver	4.4	400	0.61	7.2
RZA AGRA 1994a	6/21/1994	7+50	0.5	Silver	4.1	400	0.61	6.7
RZA AGRA 1994a	6/21/1994	Mayer - 2	2.5	Silver	3.9	400	0.61	6.4
RZA AGRA 1994a	6/21/1994	8+10-13W	0.4	Silver	3.8	400	0.61	6.2
RZA AGRA 1994a	6/21/1994	Mayer - 4	1.5	Silver	0.91	400	0.61	1.5
RZA AGRA 1994a	6/21/1994	7+00	4.0	Silver	0.8	400	0.61	1.3
RZA AGRA 1994a	6/21/1994	Mayer - 5	1.5	Silver	0.78	400	0.61	1.3

ft bgs - Feet below ground surface
mg/kg - Milligrams per kilogram
MTCA - Model Toxics Control Act
CSL - Cleanup Screening Level from Washington Sediment Management Standards

a - The lower of MTCA Method A or B cleanup levels was selected, from CLARC database.
b - Based on CSL. Where two screening levels are listed for a single chemical, the higher screening levels are for soil samples collected from the vadose zone and the lower screening levels are for soil samples collected from the saturated zone (SAIC 2006).
Groundwater elevation data are not available for this site. The saturated CSL screening levels were assumed for all CKD soil samples.
Table presents detected chemicals only.
Exceedance factors are the ratio of the detected concentration to the MTCA Cleanup Level or Soil-to-Sediment Screening Level, whichever is lower.
Chemicals and samples with exceedance factors greater than 1 are shaded light yellow.

Table F-22
Chemicals Detected in Calcium Carbonate Precipitate Samples
Puget Park and the McFarland Property

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Carbonate Precipitate Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
Hart Crowser 1996	8/29/1996	PP-4	NA	Arsenic	270	0.67	590	403
Hart Crowser 1996	8/29/1996	PP-5	NA	Arsenic	100	0.67	590	149
Hart Crowser 1996	8/29/1996	MC-1	NA	Arsenic	35	0.67	590	52
Hart Crowser 1996	8/29/1996	PP-9	NA	Arsenic	35	0.67	590	52
Hart Crowser 1996	8/29/1996	PP-3	NA	Arsenic	16	0.67	590	24
Hart Crowser 1996	8/29/1996	PP-6	NA	Arsenic	10	0.67	590	15
Hart Crowser 1996	8/29/1996	PP-7	NA	Arsenic	10	0.67	590	15
Hart Crowser 1996	8/29/1996	PP-1	NA	Arsenic	9.0	0.67	590	13
Hart Crowser 1996	8/29/1996	PP-8	NA	Arsenic	6.2	0.67	590	9.3
Hart Crowser 1996	8/29/1996	MC-2	NA	Arsenic	5.2	0.67	590	8
Hart Crowser 1996	8/29/1996	PP-2	NA	Arsenic	2.9	0.67	590	4.3
Hart Crowser 1996	8/29/1996	MC-3	NA	Arsenic	2.4	0.67	590	4
Hart Crowser 1996	8/29/1996	PP-5	NA	Cadmium	19	2	1.7	11
Hart Crowser 1996	8/29/1996	PP-9	NA	Cadmium	1.9	2	1.7	1.1
Hart Crowser 1996	8/29/1996	PP-7	NA	Cadmium	0.88	2	1.7	<1
Hart Crowser 1996	8/29/1996	PP-1	NA	Cadmium	0.7	2	1.7	<1
Hart Crowser 1996	8/29/1996	PP-2	NA	Cadmium	0.60	2	1.7	<1
Hart Crowser 1996	8/29/1996	PP-5	NA	Lead	5,300	250	67	791
Hart Crowser 1996	8/29/1996	PP-9	NA	Lead	1,600	250	67	24
Hart Crowser 1996	8/29/1996	PP-3	NA	Lead	1,500	250	67	22
Hart Crowser 1996	8/29/1996	PP-6	NA	Lead	1,300	250	67	19
Hart Crowser 1996	8/29/1996	MC-1	NA	Lead	410	250	67	6
Hart Crowser 1996	8/29/1996	PP-7	NA	Lead	280	250	67	4.2
Hart Crowser 1996	8/29/1996	PP-4	NA	Lead	250	250	67	3.7
Hart Crowser 1996	8/29/1996	MC-3	NA	Lead	130	250	67	2
Hart Crowser 1996	8/29/1996	PP-2	NA	Lead	95	250	67	1.4
Hart Crowser 1996	8/29/1996	PP-1	NA	Lead	51	250	67	<1
Hart Crowser 1996	8/29/1996	PP-8	NA	Lead	38	250	67	<1
Hart Crowser 1996	8/29/1996	MC-2	NA	Lead	13	250	67	<1

Table F-22
Chemicals Detected in Calcium Carbonate Precipitate Samples
Puget Park and the McFarland Property

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Carbonate Precipitate Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor

mg/kg - Milligrams per kilogram
MTCA - Model Toxics Control Act
CSL - Cleanup Screening Level from Washington Sediment Management Standards
TEQ - Toxic Equivalents
NA - Not available

a - The lower of MTCA Method A or B cleanup levels for soil was selected, from CLARC database.
b - Based on CSL for soil. Where two screening levels are listed for a single chemical, the higher screening levels are for soil samples collected from the vadose zone and the lower screening levels are for soil samples collected from the saturated zone (SAIC 2006).
Perched water was observed at 2 to 4 inches bgs. The saturated CSL screening levels were assumed for all carbonate precipitate samples.
Table presents detected chemicals only.
Exceedance factors are the ratio of the detected concentration to the MTCA Cleanup Level or Soil-to-Sediment Screening Level, whichever is lower.
Chemicals and samples with exceedance factors greater than 1 are shaded light yellow.

Table F-23
Dioxins/Furans Detected in Cement Kiln Dust Samples
Puget Park and the McFarland Property

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	CKD Conc'n (pg/g)	TEQ (pg/g)
Geo Group 2003b	10/6/2003 to10/8/2003	SCRN- 1,3,4,5,6 (Composite)	3.5 - 5	1,2,3,6,7,8- HxCDD	0.53 J	0.053
Geo Group 2003b	10/6/2003 to10/8/2003	SCRN- 1,3,4,5,6 (Composite)	3.5 - 5	1,2,3,4,6,7,8-HpCDD	7.9	0.079
Geo Group 2003b	10/6/2003 to10/8/2003	SCRN- 1,3,4,5,6 (Composite)	3.5 - 5	OCDD	69.2	0.0692
Geo Group 2003b	10/6/2003 to10/8/2003	SCRN- 1,3,4,5,6 (Composite)	3.5 - 5	1,2,3,4,7,8-HxCDF	0.42 J	0.042
Geo Group 2003b	10/6/2003 to10/8/2003	SCRN- 1,3,4,5,6 (Composite)	3.5 - 5	1,2,3,4,6,7,8-HpCDF	2.0 J	0.02
Geo Group 2003b	10/6/2003 to10/8/2003	SCRN- 1,3,4,5,6 (Composite)	3.5 - 5	OCDF	3.3 J	0.0033
Geo Group 2003b	10/6/2003 to10/8/2003	SCRN- 1,3,4,5,6 (Composite)	3.5 - 5	Total TCDD	0.89	
Geo Group 2003b	10/6/2003 to10/8/2003	SCRN- 1,3,4,5,6 (Composite)	3.5 - 5	Total PeCDD	0.42	
Geo Group 2003b	10/6/2003 to10/8/2003	SCRN- 1,3,4,5,6 (Composite)	3.5 - 5	Total HxCDD	3.3	
Geo Group 2003b	10/6/2003 to10/8/2003	SCRN- 1,3,4,5,6 (Composite)	3.5 - 5	Total HpCDD	21.3	
Geo Group 2003b	10/6/2003 to10/8/2003	SCRN- 1,3,4,5,6 (Composite)	3.5 - 5	Total PeCDF	3.0	
Geo Group 2003b	10/6/2003 to10/8/2003	SCRN- 1,3,4,5,6 (Composite)	3.5 - 5	Total HxCDF	3.7	
Geo Group 2003b	10/6/2003 to10/8/2003	SCRN- 1,3,4,5,6 (Composite)	3.5 - 5	Total HpCDF	4.5	
Geo Group 2003b	10/6/2003 to10/8/2003	SCRN- 1,3,4,5,6 (Composite)	3.5 - 5	Total PCDD (Dioxin)	95.11	0.6
Geo Group 2003b	10/6/2003 to10/8/2003	SCRN- 1,3,4,5,6 (Composite)	3.5 - 5	Total PCDF (Furans)	35.6	0.55
Geo Group 2003b	10/6/2003 to10/8/2003	SCRN- 1,3,4,5,6 (Composite)	3.5 - 5	Total TEQ (Dioxin +Furan)	130.71	1.1

ft bgs - Feet below ground surface
pg/g - Picograms/gram
MTCA - Model Toxics Control Act
CKD - Cement kiln dust
TEQ - Toxic Equivalents
J - Estimated value

Cleanup levels and screening values are not available for comparison to CKD concentrations or TEQs.
Table presents detected chemicals only.

Table F-24
Dioxins/Furans Detected in Puget Creek Sediment, Calcium Carbonate Precipitate and Seep Water
Puget Park and the McFarland Property

Source	Sample Date	Sample Location	Chemical	Sediment/ Precipitate Conc'n (pg/g DW)	TEQ (pg/g DW)	LDW Background TEQ (pg/g DW)	Exceedance Factor
Geo Group 2003b	10/8/2003	SCRN-7	1,2,3,4,6,7,8-HpCDD	251	2.51	1.6	1.6
Geo Group 2003b	10/8/2003	SCRN-7	1,2,3,4,6,7,8-HpCDF	26.4	0.264	1.6	<1
Geo Group 2003b	10/8/2003	SCRN-7	1,2,3,4,7,8,9-HpCDF	1.0 J	0.01	1.6	<1
Geo Group 2003b	10/8/2003	SCRN-7	1,2,3,4,7,8-HxCDF	0.36 J	0.036	1.6	<1
Geo Group 2003b	10/8/2003	SCRN-7	1,2,3,6,7,8- HxCDD	2.3 J	0.23	1.6	<1
Geo Group 2003b	10/8/2003	SCRN-7	1,2,3,6,7,8-HxCDF	0.24 J	0.024	1.6	<1
Geo Group 2003b	10/8/2003	SCRN-7	1,2,3,7,8,9-HxCDD	1.1 J	0.11	1.6	<1
Geo Group 2003b	10/8/2003	SCRN-7	2,3,4,6,7,8-HxCDF	0.29 J	0.029	1.6	<1
Geo Group 2003b	10/8/2003	SCRN-7	OCDD	2,270	2.27	1.6	1.4
Geo Group 2003b	10/8/2003	SCRN-7	OCDF	104	0.104	1.6	<1
Geo Group 2003b	10/8/2003	SCRN-8	OCDF	1.9	0.0019	1.6	<1
Geo Group 2003b	10/8/2003	SCRN-7	Total HpCDD	493		1.6	
Geo Group 2003b	10/8/2003	SCRN-7	Total HpCDF	89		1.6	
Geo Group 2003b	10/8/2003	SCRN-7	Total HxCDD	20		1.6	
Geo Group 2003b	10/8/2003	SCRN-7	Total HxDCF	14.3 X		1.6	
Geo Group 2003b	10/8/2003	SCRN-7	Total PCDD (Dioxin)	2,783.63	5.4	1.6	3.4
Geo Group 2003b	10/8/2003	SCRN-8	Total PCDD (Dioxin)	49.0	0.4	1.6	<1
Geo Group 2003b	10/8/2003	SCRN-7	Total PCDF (Furans)	209.78	0.8	1.6	<1
Geo Group 2003b	10/8/2003	SCRN-8	Total PCDF (Furans)	33.4	1.1	1.6	<1
Geo Group 2003b	10/8/2003	SCRN-7	Total PeCDD	0.43		1.6	
Geo Group 2003b	10/8/2003	SCRN-7	Total PeCDF	0.98 X		1.6	
Geo Group 2003b	10/8/2003	SCRN-7	Total TCDF	1.6 X		1.6	
Geo Group 2003b	10/8/2003	SCRN-7	Total TEQ (Dioxin +Furan)	2,993.41	6.2	1.6	3.9
Geo Group 2003b	10/8/2003	SCRN-8	Total TEQ (Dioxin +Furan)	82.4	1.5	1.6	<1

Source	Sample Date	Sample Location	Chemical	Water Conc'n (pg/L)	TEQ (pg/L)
Geo Group 2003b	10/8/2003	SCRN-9	Total PCDD (Dioxin)	21.3	2.9
Geo Group 2003b	10/8/2003	SCRN-9	Total PCDF (Furans)	2.6	1.25
Geo Group 2003b	10/8/2003	SCRN-9	Total TEQ (Dioxin +Furan)	23.9	4.1

Table F-24
Dioxins/Furans Detected in Puget Creek Sediment, Calcium Carbonate Precipitate and Seep Water
Puget Park and the McFarland Property

Source	Sample Date	Sample Location	Chemical	Sediment/ Precipitate Conc'n (pg/g DW)	TEQ (pg/g DW)	LDW Background TEQ (pg/g DW)	Exceedance Factor

pg/g - Picograms/gram
DW - Dry weight
pg/L - Picograms per liter
LDW - Lower Duwamish Waterway
TEQ - Toxic Equivalents
J - Estimated value
X - Result influenced by the presence of a diphenyl ether peak that is at least 10 percent of the total analyte peak.

SCRN-7 - Puget Creek sediment sample
SCRN-8 - calcium carbonate precipitate sample
SCRN-9 - seep water sample

Table presents detected chemicals only.
Organic chemicals were not normalized for organic carbon content during testing.
Chemical concentrations are compared to the 95 percent upper confidence limit on the mean of the natural background concentration for dioxins/furans (AECOM 2010). Sediment Management Standards are not available for comparison.
Exceedance factors are the ratio of the detected concentrations to the LDW background TEQ, exceedance factors are shown only if they are greater than 1.
Chemicals and samples with exceedance factors greater than 1 are shaded light yellow.

Table F-25
Chemicals Detected in Soil Samples
Pigeon Point Park

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Soil Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Exceedance Factor
Seattle City Light 2006	10/4/2006	A-4-NW	<4	Mineral oil	910	4,000	<1
Seattle City Light 2006	10/4/2006	A-2-SE	<4	Mineral oil	140	4,000	<1
Seattle City Light 2006	10/4/2006	A-3-SW	<4	Mineral oil	84	4,000	<1

ft bgs - Feet below ground surface
mg/kg - Milligrams per kilogram
MTCA - Model Toxics Control Act

a - The lower of MTCA Method A or B cleanup levels was selected, from CLARC database.
Table presents detected chemicals only.
Exceedance factors are the ratio of the detected concentration to the MTCA Cleanup Level.

Table F-26
Chemicals Detected in Surface Water and Leachate Samples
Washington Federal Savings & Loan Property

Source	Sample Date	Sample Location	Chemical	Surface Water Conc'n (ug/L)	Marine Chronic WQS[a] (ug/L)	Marine Acute WQS[b] (ug/L)	Chronic WQS Exceedance Factor	GW-to-Sediment Screening Level[c] (ug/L)	Exceedance Factor
Environmental Control 1990b	2/1/1990	002617	Aluminum	1,200					
Environmental Control 1990b	2/1/1990	002616	Aluminum	490					
Environmental Control 1990a	5/19/1989	907829 Zd Drain Water	Aluminum	270					
Environmental Control 1990b	2/1/1990	002614	Aluminum	200					
Environmental Control 1990a	5/19/1989	907830 Catch Basin Water	Aluminum	200					
Environmental Control 1990a	5/19/1989	907828 Zd Drain Water	Aluminum	130					
Environmental Control 1990a	5/19/1989	907827 Clear Water - embankment	Aluminum	120					
Environmental Control 1990b	2/1/1990	002615	Aluminum	120					
Environmental Control 1990a	5/19/1989	907829 Zd Drain Water	Arsenic	20	36	69	<1	370	<1
Ecology 1989b	3/30/1989	CKD-1	Arsenic	4	36	69	<1	370	<1
Ecology 1989b	3/30/1989	CKD-2	Arsenic	2	36	69	<1	370	<1
Ecology 1989b	3/30/1989	CKD-3	Arsenic	1	36	69	<1	370	<1
Environmental Control 1990a	5/19/1989	907827 Clear Water - embankment	Barium	260					
Environmental Control 1990a	5/19/1989	907830 Catch Basin Water	Barium	260					
Environmental Control 1990b	2/1/1990	002614	Barium	176					
GeoEngineers 1993	3/3/1993	Leachate Collection System Manhole	Barium	130					
Environmental Control 1990b	2/1/1990	002616	Barium	73					
Environmental Control 1990a	5/19/1989	907828 Zd Drain Water	Barium	60					
Environmental Control 1990a	5/19/1989	907829 Zd Drain Water	Barium	60					
GeoEngineers 1993	3/3/1993	SW-1	Barium	36					
GeoEngineers 1993	3/3/1993	SW-2	Barium	31					
Environmental Control 1990b	2/1/1990	002617	Barium	29					
GeoEngineers 1993	3/3/1993	Leachate Seep next to Storm Drain	Barium	28					
GeoEngineers 1993	3/3/1993	SW-3	Barium	21					
Environmental Control 1990b	2/1/1990	002615	Barium	12					
Ecology 1989b	3/30/1989	CKD-1	Cadmium	2	8.8	40	<1	3.4	<1
Environmental Control 1990b	2/1/1990	002614	Chromium	80				320	<1
Ecology 1989b	3/30/1989	CKD-2	Chromium	40				320	<1
Environmental Control 1990b	2/1/1990	002616	Chromium	29				320	<1
Ecology 1989b	3/30/1989	CKD-1	Chromium	20				320	<1
Environmental Control 1990b	2/1/1990	002617	Chromium	14				320	<1
Environmental Control 1990b	2/1/1990	002615	Chromium	12				320	<1
Environmental Control 1990a	5/19/1989	907827 Clear Water - embankment	Chromium	10				320	<1
Ecology 1989b	3/30/1989	CKD-3	Chromium	10				320	<1
Environmental Control 1990a	5/19/1989	907830 Catch Basin Water	Chromium	10				320	<1
Environmental Control 1990b	2/1/1990	002614	Cobalt	9					
Environmental Control 1990b	2/1/1990	002615	Cobalt	7					
Environmental Control 1990b	2/1/1990	002616	Cobalt	7					
Environmental Control 1990b	2/1/1990	002617	Cobalt	5					

Table F-26
Chemicals Detected in Surface Water and Leachate Samples
Washington Federal Savings & Loan Property

Source	Sample Date	Sample Location	Chemical	Surface Water Conc'n (ug/L)	Marine Chronic WQS[a] (ug/L)	Marine Acute WQS[b] (ug/L)	Chronic WQS Exceedance Factor	GW-to-Sediment Screening Level[c] (ug/L)	Exceedance Factor
Environmental Control 1990b	2/1/1990	002614	Copper	26	2.4	2.4	11	120	<1
Environmental Control 1990a	5/19/1989	907827 Clear Water - embankment	Copper	20	2.4	2.4	8.3	120	<1
Environmental Control 1990a	5/19/1989	907828 Zd Drain Water	Copper	20	2.4	2.4	8.3	120	<1
Environmental Control 1990a	5/19/1989	907829 Zd Drain Water	Copper	20	2.4	2.4	8.3	120	<1
Environmental Control 1990b	2/1/1990	002617	Copper	16	2.4	2.4	6.7	120	<1
Environmental Control 1990b	2/1/1990	002615	Copper	11	2.4	2.4	4.6	120	<1
Environmental Control 1990a	5/19/1989	907830 Catch Basin Water	Copper	10	2.4	2.4	4.2	120	<1
Environmental Control 1990b	2/1/1990	002616	Copper	4	2.4	2.4	1.7	120	<1
Environmental Control 1990b	2/1/1990	002617	Iron	1,200					
Environmental Control 1990b	2/1/1990	002616	Iron	520					
Environmental Control 1990a	5/19/1989	907829 Zd Drain Water	Iron	90					
Environmental Control 1990b	2/1/1990	002614	Iron	30					
Environmental Control 1990b	2/1/1990	002615	Iron	30					
Environmental Control 1990a	5/19/1989	907830 Catch Basin Water	Iron	20					
Ecology 1989b	3/30/1989	CKD-1	Lead	1,100	8.1	210	136	13	85
Ecology 1989b	3/30/1989	CKD-2	Lead	940	8.1	210	116	13	72
Environmental Control 1990a	5/19/1989	907827 Clear Water - embankment	Lead	900	8.1	210	111	13	69
Environmental Control 1990a	5/19/1989	907830 Catch Basin Water	Lead	800	8.1	210	99	13	62
Wendlick 1999	8/6/1999	Leachate Sample #1	Lead	790	8.1	210	98	13	61
Wendlick 1999	8/6/1999	Leachate Sample #2	Lead	760	8.1	210	94	13	58
Ecology 1989b	3/30/1989	CKD-3	Lead	670	8.1	210	83	13	52
Environmental Control 1990b	2/1/1990	002614	Lead	450	8.1	210	56	13	35
GeoEngineers 1993	3/3/1993	Leachate Collection System Manhole	Lead	46	8.1	210	5.7	13	3.5
Environmental Control 1990a	5/19/1989	907829 Zd Drain Water	Lead	30	8.1	210	3.7	13	2.3
Environmental Control 1990b	2/1/1990	002617	Manganese	38					
Environmental Control 1990b	2/1/1990	002616	Manganese	25					
Environmental Control 1990a	5/19/1989	907829 Zd Drain Water	Manganese	20					
Environmental Control 1990b	2/1/1990	002614	Manganese	15					
Environmental Control 1990b	2/1/1990	002615	Manganese	4					
Ecology 1989b	3/30/1989	CKD-3	Mercury	1.4	0.025	1.8	56	0.0074	189
Ecology 1989b	3/30/1989	CKD-2	Mercury	0.9	0.025	1.8	36	0.0074	122
Ecology 1989b	3/30/1989	CKD-1	Mercury	0.3	0.025	1.8	12	0.0074	41
Environmental Control 1990a	5/19/1989	907828 Zd Drain Water	Molybdenum	70					
Environmental Control 1990b	2/1/1990	002615	Molybdenum	70					
Environmental Control 1990a	5/19/1989	907829 Zd Drain Water	Molybdenum	70					
Environmental Control 1990b	2/1/1990	002614	Molybdenum	40					
Environmental Control 1990a	5/19/1989	907827 Clear Water - embankment	Molybdenum	30					
Environmental Control 1990b	2/1/1990	002616	Molybdenum	20					
Environmental Control 1990a	5/19/1989	907830 Catch Basin Water	Molybdenum	20					

Table F-26
Chemicals Detected in Surface Water and Leachate Samples
Washington Federal Savings & Loan Property

Source	Sample Date	Sample Location	Chemical	Surface Water Conc'n (ug/L)	Marine Chronic WQS[a] (ug/L)	Marine Acute WQS[b] (ug/L)	Chronic WQS Exceedance Factor	GW-to-Sediment Screening Level[c] (ug/L)	Exceedance Factor
Ecology 1989b	3/30/1989	CKD-1	Nickel	40					
Ecology 1989b	3/30/1989	CKD-3	Nickel	40					
Ecology 1989b	3/30/1989	CKD-2	Nickel	10					
Environmental Control 1990b	2/1/1990	002614	Silver	30				1.5	20
Environmental Control 1990b	2/1/1990	002616	Silver	10				1.5	6.7
Environmental Control 1990a	5/19/1989	907827 Clear Water - embankment	Strontium	29,000					
Environmental Control 1990a	5/19/1989	907830 Catch Basin Water	Strontium	28,000					
Environmental Control 1990b	2/1/1990	002614	Strontium	11,200					
Environmental Control 1990a	5/19/1989	907828 Zd Drain Water	Strontium	1,600					
Environmental Control 1990a	5/19/1989	907829 Zd Drain Water	Strontium	1,600					
Environmental Control 1990b	2/1/1990	002616	Strontium	926					
Environmental Control 1990b	2/1/1990	002615	Strontium	411					
Environmental Control 1990b	2/1/1990	002617	Strontium	124					
Environmental Control 1990b	2/1/1990	002616	Tin	50					
Environmental Control 1990b	2/1/1990	002614	Tin	40					
Environmental Control 1990b	2/1/1990	002615	Tin	30					
Environmental Control 1990b	2/1/1990	002617	Tin	20					
Environmental Control 1990b	2/1/1990	002615	Vanadium	7					
Environmental Control 1990b	2/1/1990	002614	Vanadium	6					
Environmental Control 1990b	2/1/1990	002616	Vanadium	6					
Environmental Control 1990b	2/1/1990	002617	Vanadium	4					
Environmental Control 1990b	2/1/1990	002614	Yittrium	10					
Environmental Control 1990b	2/1/1990	002616	Yittrium	4					
Environmental Control 1990b	2/1/1990	002615	Yittrium	2					
Environmental Control 1990b	2/1/1990	002617	Yittrium	2					
Environmental Control 1990a	5/19/1989	907830 Catch Basin Water	Zinc	20	81	90	<1	76	<1
Environmental Control 1990b	2/1/1990	002617	Zinc	16	81	90	<1	76	<1
Environmental Control 1990b	2/1/1990	002616	Zinc	11	81	90	<1	76	<1
Environmental Control 1990a	5/19/1989	907827 Clear Water - embankment	Zinc	10	81	90	<1	76	<1
Environmental Control 1990b	2/1/1990	002614	Zinc	9	81	90	<1	76	<1
Environmental Control 1990a	5/19/1989	907829 Zd Drain Water	Zinc	8	81	90	<1	76	<1
Environmental Control 1990b	2/1/1990	002615	Zinc	4	81	90	<1	76	<1
Environmental Control 1990a	5/19/1989	907828 Zd Drain Water	Zinc	3	81	90	<1	76	<1

Table F-26
Chemicals Detected in Surface Water and Leachate Samples
Washington Federal Savings & Loan Property

Source	Sample Date	Sample Location	Chemical	Surface Water Conc'n (ug/L)	Marine Chronic WQS[a] (ug/L)	Marine Acute WQS[b] (ug/L)	Chronic WQS Exceedance Factor	GW-to-Sediment Screening Level[c] (ug/L)	Exceedance Factor

ug/L - Microgram per liter
WQS - Water Quality Standards
GW - Groundwater
CSL - Cleanup Screening Level from Washington Sediment Management Standards

a - The lower of the ARARS for Surface Water Aquatic Life (Marine/Chronic) were selected from CLARC database
b - The lower of the ARARS for Surface Water Aquatic Life (Marine/Acute) were selected from CLARC database
c - Based on CSL (SAIC 2006).
Table presents detected chemicals only.
Exceedance factors are the ratio of the detected concentrations to the minimum screening level availbe in the WA State CLARC database, exceedance factors are shown only if they are greater than 1.
Chemicals and samples with exceedance factors greater than 1 are shaded light yellow.

Table F-27
Chemicals Detected in Soil and Cement Kiln Dust Samples
Washington Federal Savings & Loan Property

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor	Notes
GeoEngineers 1993	3/3/1993	TP-4	1.5	Arsenic	230	0.67	590	343	CKD
GeoEngineers 1993	3/3/1993	TP-10	2	Arsenic	190	0.67	590	284	CKD
GeoEngineers 1993	3/3/1993	TP-6	2	Arsenic	160	0.67	590	239	CKD
GeoEngineers 1993	3/3/1993	TP-7	2.5	Arsenic	140	0.67	590	209	CKD
GeoEngineers 1993	3/3/1993	TP-1	2	Arsenic	93	0.67	590	139	CKD
GeoEngineers 1993	3/3/1993	TP-3	1.5	Arsenic	19	0.67	590	28	Soil
GeoEngineers 1993	3/3/1993	TP-5	2	Arsenic	3.8	0.67	590	5.7	Soil
GeoEngineers 1993	3/3/1993	TP-9	1.5	Arsenic	3.2	0.67	590	4.8	Soil
GeoEngineers 1993	3/3/1993	TP-8	2.5	Arsenic	3.1	0.67	590	4.6	Soil
GeoEngineers 1993	3/3/1993	TP-2	2	Arsenic	1.8	0.67	590	2.7	Soil
GeoEngineers 1993	3/3/1993	TP-10	2	Barium	340	16,000		<1	CKD
GeoEngineers 1993	3/3/1993	TP-3	1.5	Barium	150	16,000		<1	Soil
GeoEngineers 1993	3/3/1993	TP-4	1.5	Barium	100	16,000		<1	CKD
GeoEngineers 1993	3/3/1993	TP-7	2.5	Barium	100	16,000		<1	CKD
GeoEngineers 1993	3/3/1993	TP-9	1.5	Barium	87	16,000		<1	Soil
GeoEngineers 1993	3/3/1993	TP-1	2	Barium	80	16,000		<1	CKD
GeoEngineers 1993	3/3/1993	TP-8	2.5	Barium	72	16,000		<1	Soil
GeoEngineers 1993	3/3/1993	TP-5	2	Barium	65	16,000		<1	Soil
GeoEngineers 1993	3/3/1993	TP-2	2	Barium	47	16,000		<1	Soil
GeoEngineers 1993	3/3/1993	TP-6	2	Barium	23	16,000		<1	CKD
GeoEngineers 1993	3/3/1993	TP-4	1.5	Cadmium	6.8	2	1.7	4.0	CKD
GeoEngineers 1993	3/3/1993	TP-1	2	Cadmium	3.6	2	1.7	2.1	CKD
Where two screening levels	3/3/1993	TP-10	2	Cadmium	3	2	1.7	1.8	CKD
GeoEngineers 1993	3/3/1993	TP-6	2	Cadmium	3	2	1.7	1.8	CKD
GeoEngineers 1993	3/3/1993	TP-7	2.5	Cadmium	2.2	2	1.7	1.3	CKD
GeoEngineers 1993	3/3/1993	TP-9	1.5	Chromium	44	2,000	270	<1	Soil
GeoEngineers 1993	3/3/1993	TP-8	2.5	Chromium	38	2,000	270	<1	Soil
GeoEngineers 1993	3/3/1993	TP-5	2	Chromium	36	2,000	270	<1	Soil
GeoEngineers 1993	3/3/1993	TP-3	1.5	Chromium	34	2,000	270	<1	Soil
GeoEngineers 1993	3/3/1993	TP-2	2	Chromium	24	2,000	270	<1	Soil

Table F-27
Chemicals Detected in Soil and Cement Kiln Dust Samples
Washington Federal Savings & Loan Property

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor	Notes
GeoEngineers 1993	3/3/1993	TP-6	2	Chromium	14	2,000	270	<1	CKD
GeoEngineers 1993	3/3/1993	TP-1	2	Chromium	12	2,000	270	<1	CKD
GeoEngineers 1993	3/3/1993	TP-10	2	Chromium	12	2,000	270	<1	CKD
GeoEngineers 1993	3/3/1993	TP-4	1.5	Chromium	12	2,000	270	<1	CKD
GeoEngineers 1993	3/3/1993	TP-7	2.5	Chromium	11	2,000	270	<1	CKD
GeoEngineers 1993	3/3/1993	TP-4	1.5	Lead	2,400	250	67	36	CKD
GeoEngineers 1993	3/3/1993	TP-1	2	Lead	1,200	250	67	18	CKD
GeoEngineers 1993	3/3/1993	TP-10	2	Lead	1,100	250	67	16	CKD
GeoEngineers 1993	3/3/1993	TP-7	2.5	Lead	750	250	67	11	CKD
GeoEngineers 1993	3/3/1993	TP-6	2	Lead	670	250	67	10	CKD
GeoEngineers 1993	3/3/1993	TP-3	1.5	Lead	120	250	67	1.8	Soil
GeoEngineers 1993	3/3/1993	TP-9	1.5	Lead	5.5	250	67	<1	Soil
GeoEngineers 1993	3/3/1993	TP-5	2	Lead	4.5	250	67	<1	Soil
GeoEngineers 1993	3/3/1993	TP-8	2.5	Lead	4.1	250	67	<1	Soil
GeoEngineers 1993	3/3/1993	TP-2	2	Lead	3.8	250	67	<1	Soil
GeoEngineers 1993	3/3/1993	TP-4	1.5	Silver	3.7	400	0.61	6.1	CKD
GeoEngineers 1993	3/3/1993	TP-10	2	Silver	0.98	400	0.61	1.6	CKD
GeoEngineers 1993	3/3/1993	TP-1	2	Silver	0.97	400	0.61	1.6	CKD
GeoEngineers 1993	3/3/1993	TP-7	2.5	Silver	0.76	400	0.61	1.2	CKD
GeoEngineers 1993	3/3/1993	TP-6	2	Silver	0.6	400	0.61	<1	CKD

ft bgs - Feet below ground surface
mg/kg - Milligrams per kilogram
MTCA - Model Toxics Control Act
CSL - Cleanup Screening Level from Washington Sediment Management Standards
CKD - cement kiln dust

a - The lower of MTCA Method A or B cleanup levels was selected, from CLARC database.
b - Based on CSL. Where two screening levels are listed for a single chemical, the higher screening levels are for soil samples collected from the vadose zone and the lower screening levels are for soil samples collected from the saturated zone (SAIC 2006).
Groundwater elevation data are not available for this site. The saturated CSL screening levels were assumed for all CKD soil samples.
Table presents detected chemicals only.
Exceedance factors are the ratio of the detected concentration to the MTCA Cleanup Level or Soil-to-Sediment Screening Level, whichever is lower.
Chemicals and samples with exceedance factors greater than 1 are shaded light yellow.

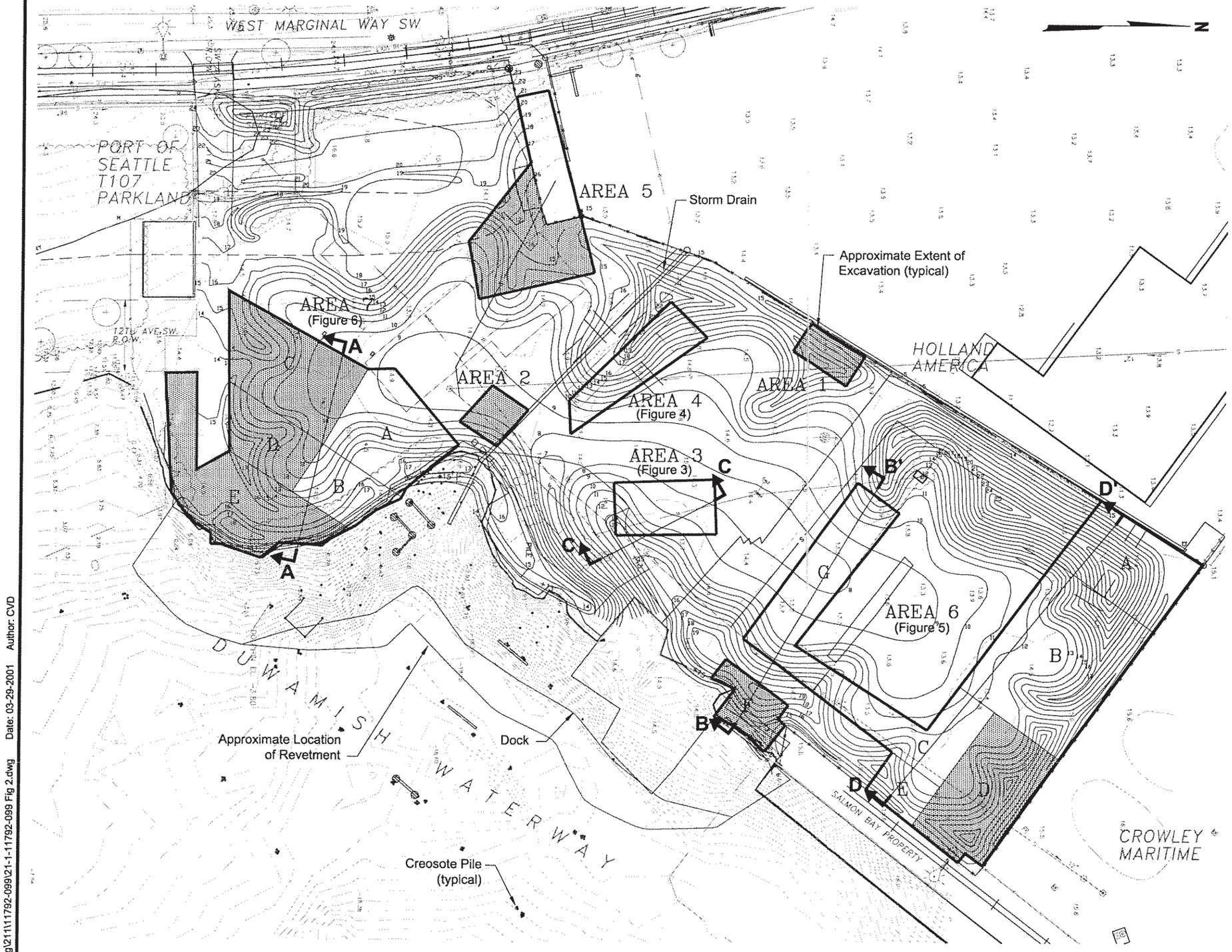
Table F-28
Chemicals Detected in Calcium Carbonate Precipitate Samples
Washington Federal Savings & Loan Property

Source	Sample Date	Sample Location	Sample Depth (ft bgs)	Chemical	Calcium Carbonate Precipitate Conc'n (mg/kg)	MTCA Cleanup Level[a] (mg/kg)	Soil-to-Sediment Screening Level[b] (mg/kg)	Exceedance Factor
Wendlick 1999	8/4/1999	Vertical Drain Line Build Up	NA	Lead	360	250	67	5.4

mg/kg - Milligrams per kilogram
MTCA - Model Toxics Control Act
CSL - Cleanup Screening Level from Washington Sediment Management Standards
TEQ - Toxic Equivalents

a - The lower of MTCA Method A or B cleanup levels for soil was selected, from CLARC database.
b - Based on CSL for soil. Where two screening levels are listed for a single chemical, the higher screening levels are for soil samples collected from the vadose zone and the lower screening levels are for soil samples collected from the saturated zone (SAIC 2006).
Groundwater elevation data are not available for this site. The saturated CSL screening levels were assumed for all carbon precipitate samples.
Table presents detected chemicals only.
Exceedance factors are the ratio of the detected concentration to the MTCA Cleanup Level or Soil-to-Sediment Screening Level, whichever is lower.
Chemicals and samples with exceedance factors greater than 1 are shaded light yellow.

Appendix F–2
Figures from the Seaboard Correction Action



AREA	POTENTIAL CONTAMINANTS IN SOIL	EST. MAX. DEPTH OF RESIDUALLY CONTAM. SOIL (BGS)
1	PETROLEUM (DIESEL, OIL)	3 feet
2	PETROLEUM (DIESEL, OIL)	4.5 feet
3	MERCURY	1.5 feet
4	PENTACHLOROPHENOL, MERCURY	4 feet
5	PETROLEUM (GASOLINE, DIESEL, OIL)	4 feet
6A	LEAD, PETROLEUM	2 feet
6B	LEAD, PETROLEUM	3 feet
6C	LEAD, PETROLEUM (DIESEL, OIL), PAH	5 feet
6D	ARSENIC, CADMIUM, CHROMIUM, MERCURY, PETROLEUM (OIL), PAH	10 feet
6E	PAH	2.5 feet
6F	ARSENIC, LEAD, PAH, PETROLEUM (OIL)	12 feet
6G	LEAD, PETROLEUM (DIESEL, OIL)	2 feet
7A	PETROLEUM (DIESEL, OIL)	12 feet
7B	PETROLEUM (DIESEL, OIL)	17 feet
7C	PETROLEUM (DIESEL, OIL), PAH	14 feet
7D	ARSENIC, PETROLEUM (DIESEL, OIL)	22 feet
7E	PETROLEUM (DIESEL, OIL), PAH	19.5 feet

LEGEND

PAH — Polycyclic Aromatic Hydrocarbons

BGS — Below (Existing) Ground Surface

Existing Contour

Proposed Contour

AA' — Cross Section Location and Designation

NOTES

1. Extent of contaminated areas are based on Phase II and III investigations by Herrera Environmental Consultants. These are pre-excavation conditions.
2. Drawing is modified from Seaboard Lumber Aquatic Habitat Restoration, Remediation Plan, Sheet 6 (June 1998).
3. Shaded areas indicate that residually contaminated soils were present after excavation. A 2-foot cover was placed over the area.

Corrective Action Report
Seaboard Lumber
Seattle, Washington

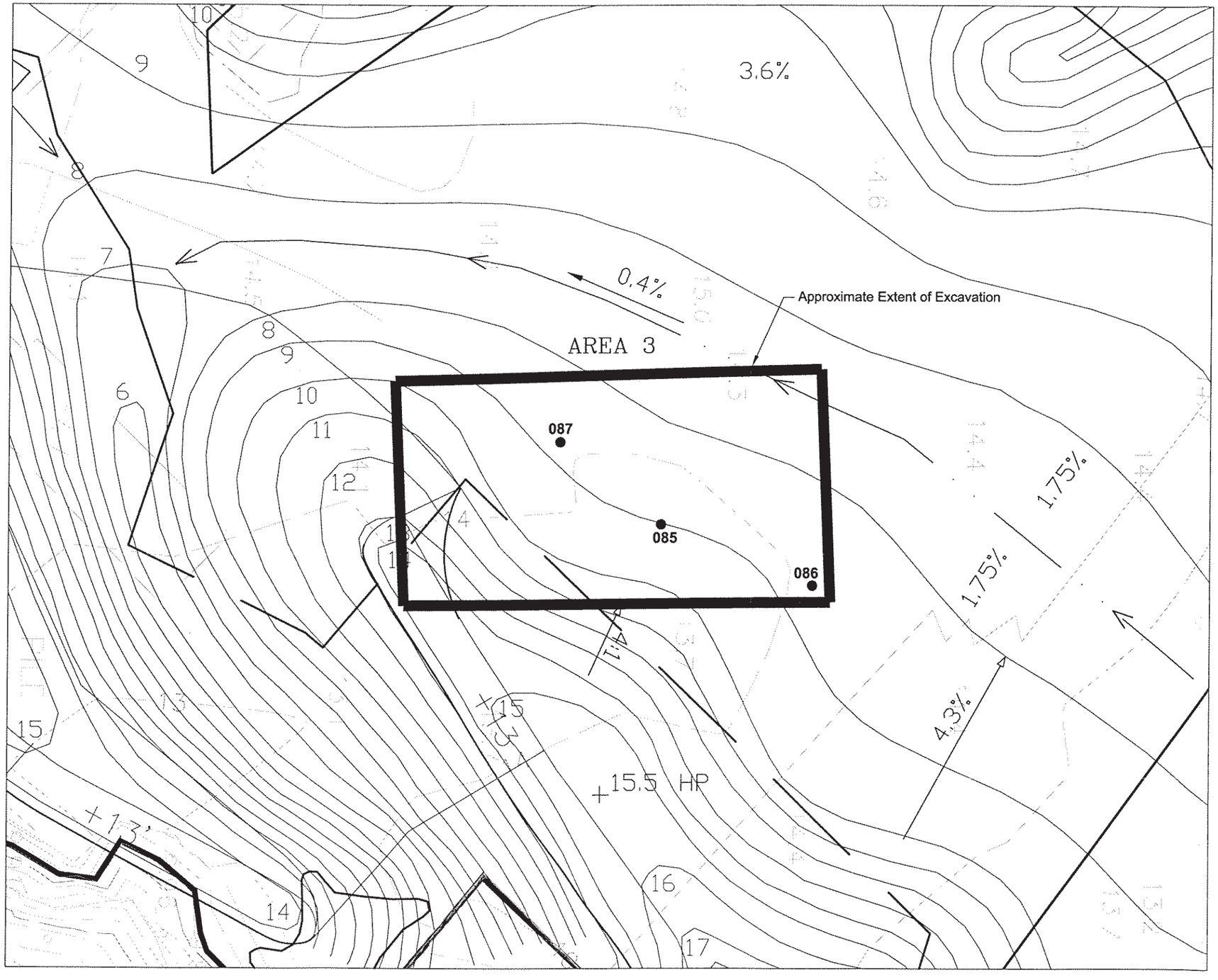
SITE PLAN
(PRE-CONSTRUCTION)

March 2001 — 21-1-11792-099

SHANNON & WILSON, INC.
Geotechnical and Environmental Consultants

FIG. 2

File: I:\Drafting\21\11\792-099\21-1-11792-099 Fig 2.dwg Date: 03-29-2001 Author: CVD



N

0 20 40

Scale in Feet

LEGEND

087 ● Confirmation Soil Sample Designation and Approximate Location

NOTES

1. Characterization samples collected for disposal purposes are not shown.
2. Figure based on drawing provided by Lee/Brennan Associates entitled Remediation Plan, dated June 9, 1998.

Corrective Action Report
Seaboard Lumber
Seattle, Washington

AREA 3
SAMPLE LOCATIONS

March 2001 21-1-11792-099

SHANNON & WILSON, INC.
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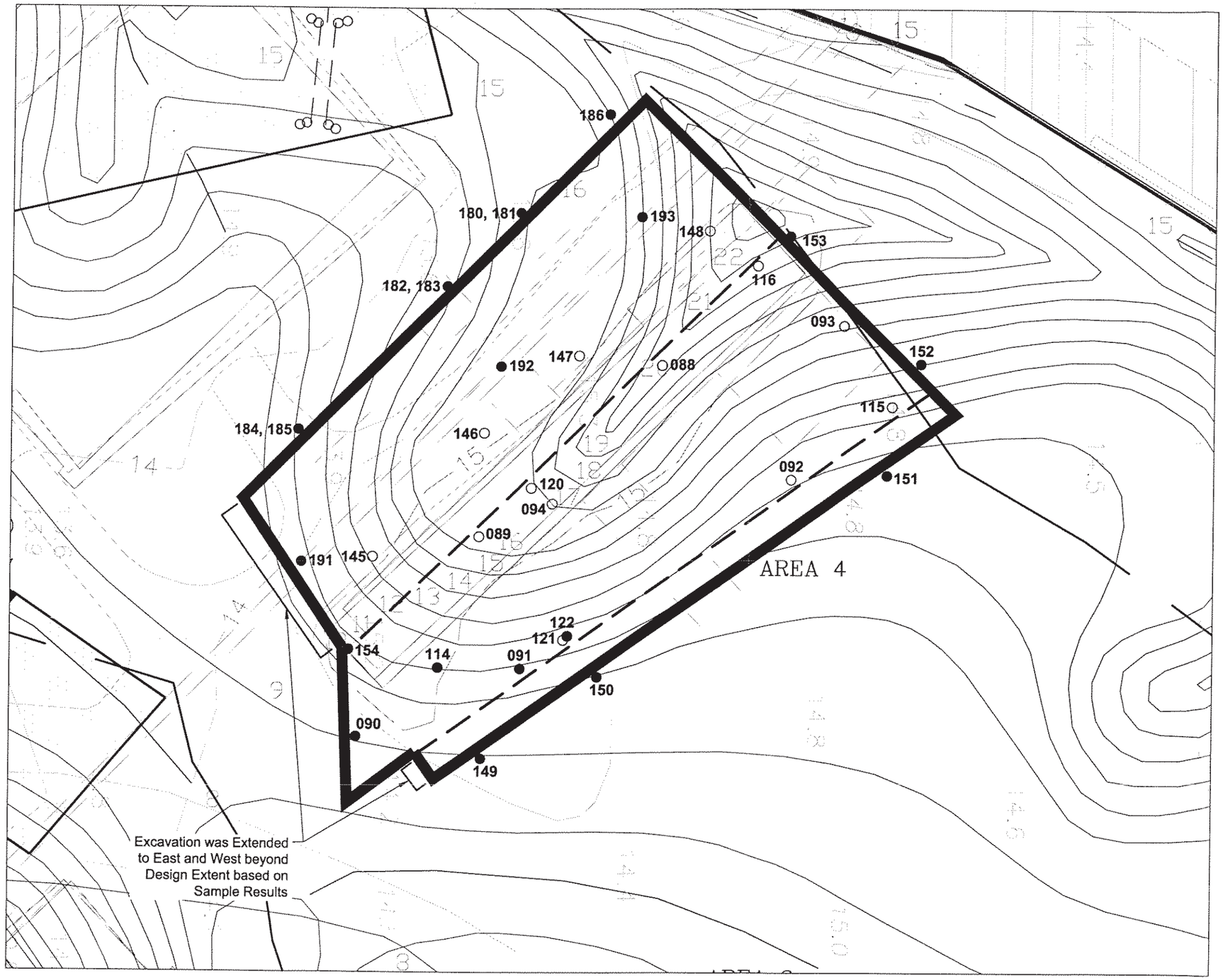
FIG. 3

File: I:\Drafting\21\11792-099\21-1-11792-099 Fig 3.dwg Date: 03-29-2001 Author: CVD



N

0 20 40

Scale in Feet

LEGEND

- 087 ● Confirmation Soil Sample Designation and Approximate Location
- 092 ○ Characterization Soil Sample Designation and Approximate Location
- Approximate Extent of Excavation
- Design Extent of Excavation (See Figure 2)

NOTES

1. Stockpile and some characterization samples are not shown.
2. Figure based on drawing provided by Lee/Brennan Associates entitled Remediation Plan, dated June 9, 1998.

Corrective Action Report
Seaboard Lumber
Seattle, Washington

AREA 4
SAMPLE LOCATIONS

March 2001 21-1-11792-099

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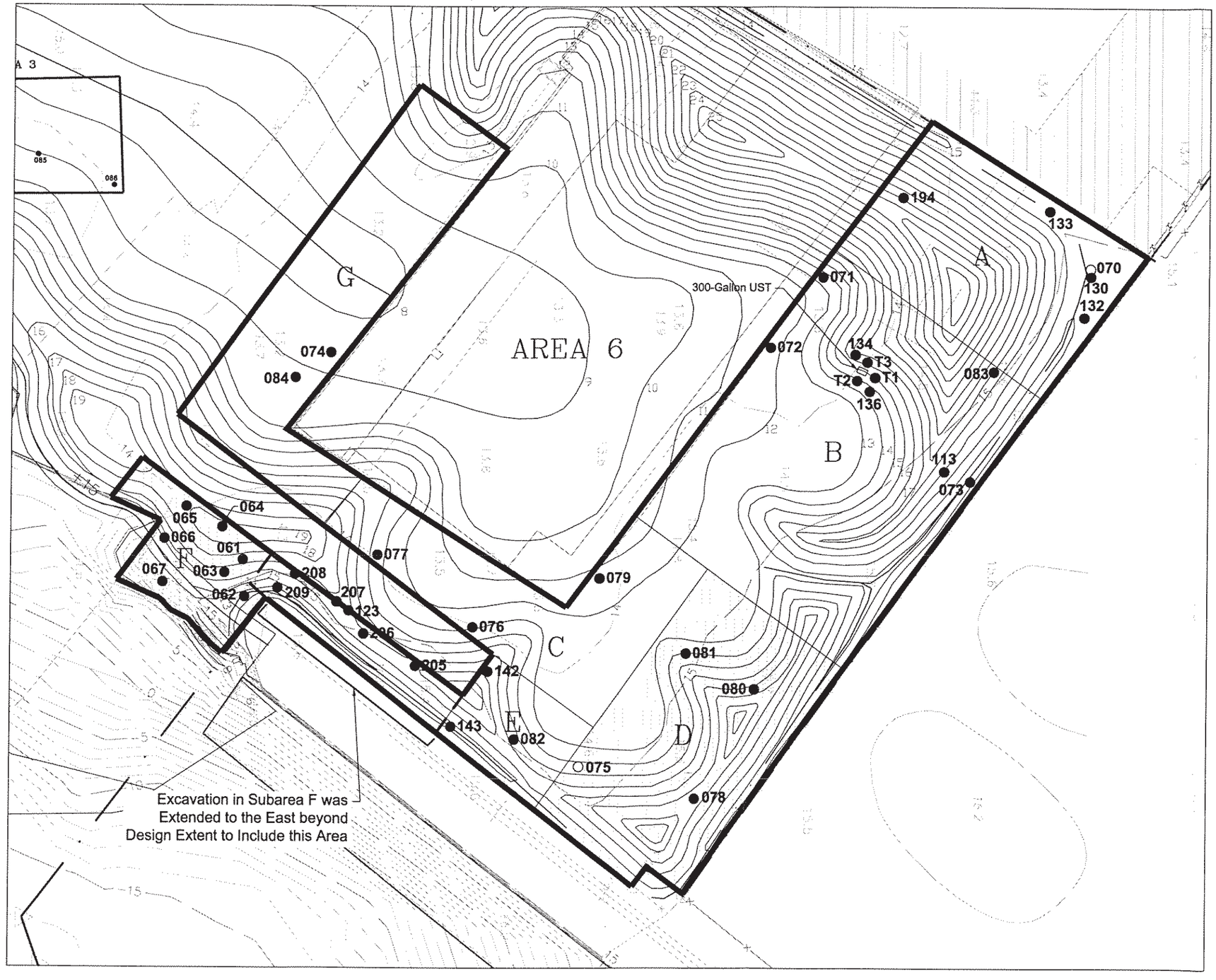
FIG. 4

File: I:\Drafting\21\11792-099\21-1-11792-099 Fig 4.dwg Date: 03-29-2001 Author: CVD



N

0 40 80

Scale in Feet

LEGEND

- **072** ● Confirmation Soil Sample Designation and Approximate Location
- **130** ○ Characterization Soil Sample Designation and Approximate Location
- Approximate Extent of Excavation
- Design Extent of Excavation (See Figure 2)

NOTES

1. Stockpile samples and some characterization samples are not shown.
2. A 2-foot soil cap was placed over remaining contaminated soil in Subareas 6D and 6F.
3. Figure based on drawing provided by Lee/Brennan Associates entitled Remediation Plan, dated June 9, 1998.

Corrective Action Report
Seaboard Lumber
Seattle, Washington

AREA 6
SAMPLE LOCATIONS

March 2001 21-1-11792-099

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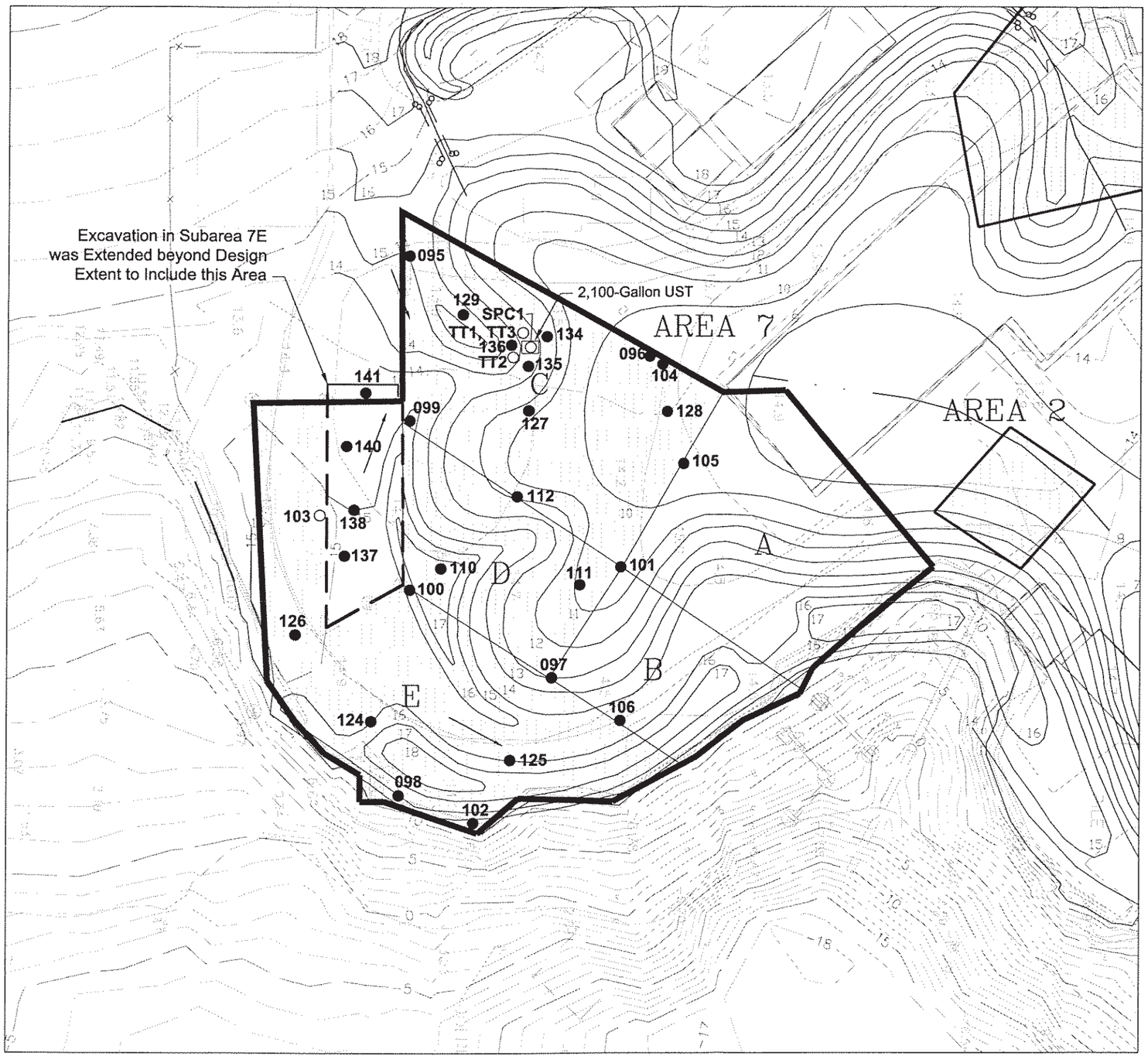
FIG. 5

File: I:\Drafting\21\11792-099\21-1-11792-099 Fig 5.dwg Date: 03-29-2001 Author: CVD



N

0 40 80

Scale in Feet

LEGEND

- 072 ● Confirmation Soil Sample Designation and Approximate Location
- TT1 ○ Characterization Soil Sample Designation and Approximate Location
- Approximate Extent of Excavation
- Design Extent of Excavation (See Figure 2)

NOTES

1. Figure based on drawing provided by Lee/Brennan Associates entitled Remediation Plan, dated June 9, 1998.
2. A 2-foot soil cap was placed over remaining contaminated soil in Subareas 7C, 7D, and 7E.

Corrective Action Report
Seaboard Lumber
Seattle, Washington

AREA 7
SAMPLE LOCATIONS

March 2001 21-1-11792-099

SHANNON & WILSON, INC.
Geotechnical and Environmental Consultants

FIG. 6

File: I:\Drafting\21\11\792-099\21-1-11792-099 Fig 6.dwg Date: 03-29-2001 Author: CVD