

# Lower Duwamish Waterway Early Action Area 2

## Supplemental Data Gaps Report

Boyer Towing Property

Prepared for



Toxics Cleanup Program  
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## Acronyms and Abbreviations

BBP	butyl benzyl phthalate
BEHP	bis(2-ethylhexyl)phthalate
BMP	best management practice
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CLARC	Cleanup Levels and Risk Calculations
COC	chemical of concern
CSL	Cleanup Screening Level
DMMU	Dredge Material Management Unit
DW	dry weight
EAA	Early Action Area
Ecology	Washington State Department of Ecology
EPA	U.S. Environmental Protection Agency
LDW	Lower Duwamish Waterway
MLLW	mean lower low water
MTCA	Model Toxics Control Act
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
OC	organic carbon
PAH	polycyclic aromatic hydrocarbon
PCB	polychlorinated biphenyl
PSDDA	Puget Sound Dredged Disposal Analysis
RCRA	Resource Conservation and Recovery Act
RI	Remedial Investigation
RM	river mile
SAIC	Science Applications International Corporation
SCAP	Source Control Action Plan
SD	storm drain
SMS	Sediment Management Standards
SPU	Seattle Public Utilities
SQS	Sediment Quality Standard
SVOC	semivolatile organic compound
SWPPP	Stormwater Pollution Prevention Plan
TCLP	Toxicity Characteristic Leaching Procedure
TOC	total organic carbon
TPH	total petroleum hydrocarbons
USACE	U.S. Army Corps of Engineers
WAC	Washington Administrative Code

## 1.0 Introduction

### 1.1 Background and Purpose

In February 2007, Science Applications International Corporation (SAIC) prepared a *Summary of Existing Information and Identification of Data Gaps* (Data Gaps) report for Early Action Area 2 (EAA-2), one of several source control areas identified as part of the overall cleanup process for the Lower Duwamish Waterway (LDW) Superfund Site (Figure 1). The EAA-2 Data Gaps report (SAIC 2007), prepared for the Washington Department of Ecology (Ecology), included available information about the Boyer Towing property located at 7318 4th Avenue S.

In December 2006, the U.S. Environmental Protection Agency (EPA) notified Boyer Towing, Boyer Logistics, Boyer Halvorsen, Kirsten Halvorsen, and Maia Halvorsen of their potential liability pursuant to Section 107(a) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) for the LDW Superfund site. Under CERCLA Section 104(e), EPA also requested information and documents relating to the environmental conditions at, and cleanup of, the Boyer Towing site. The responses from Boyer Towing/Boyer Logistics and the Halvorsens were not received in time to incorporate relevant information into the EAA-2 Data Gaps report.

This Supplemental Data Gaps report was prepared to incorporate the information provided in response to EPA's requests for information, and updates the February 2007 EAA-2 Data Gaps report. Information regarding the Boyer Towing property presented in this document supersedes that presented in the EAA-2 Data Gaps report and the EAA-2 Source Control Action Plan (SCAP).

### 1.2 Boyer Towing Property Description

Boyer Towing, Inc. is the owner of 13 parcels (Parcels A, C, and E through O) located along the LDW at approximately River Mile (RM) 2.2 to 2.6 West, just south of the Trotsky Inlet (Figure 2). In addition, Boyer Towing leases Parcel B from Kirsten Halvorsen Stahl, Maia Halvorsen, and Boyer Halvorsen.

Parcel D is owned by Mary Catherine Halvorsen; it is currently leased to Richard Schultz and is the location of Riverview Marina. Information about this parcel was not included in the CERCLA 104(e) responses submitted by Boyer Towing/Boyer Logistics or by Boyer, Kirsten, and Maia Halvorsen. It is the subject of separate EPA information requests to Mary Catherine Halvorsen and Riverview Marina, which were not available for review at the time this Supplemental Data Gaps Report was prepared.

Boyer Logistics, LLC, is a wholly-owned subsidiary of Boyer Towing, Inc. Boyer Logistics<sup>1</sup> operates on Parcels B and C. In this Data Gaps report, the term "Boyer Towing property" is used to refer to all of the Boyer Towing owned or leased parcels shown in Figure 2 (i.e., all except Parcel D).

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<sup>1</sup> Boyer Logistics was previously incorporated as Boyer Alaska Barge Lines, Inc. (J&A 2007).

Pertinent information about each parcel is listed in Table 1, including parcel identifier, tax parcel number, address, property owner, parcel size, and the dates of purchase. The parcels are bounded by the LDW to the northeast, the Trotsky property and an inlet of the LDW (referred to in this report as the Trotsky inlet) to the west and north, and various industrial properties to the west and south.

### **1.3 Report Organization**

Section 2 of this report identifies the chemicals of concern in sediment in the vicinity of the Boyer Towing property. Section 3 describes available information about each of the Boyer Towing property parcels, including current and historical operations, environmental investigations and cleanups, and the potential for sediment recontamination. Section 4 summarizes remaining data gaps and updates the action items for the Boyer Towing property identified in the EAA-2 SCAP. Section 5 lists the documents reviewed during preparation of this report.

## 2.0 Chemicals of Concern in Sediment

Results of sediment sampling in the Trotsky Inlet were discussed in the EAA-2 Data Gaps report. That document did not include sediment data along the LDW shoreline adjacent to the Boyer Towing property. For completeness, and to provide a comprehensive assessment of the potential for recontamination of LDW sediments associated with the Boyer Towing property, this supplemental data gaps report provides a review of sediment data along the LDW shoreline to the south of the Trotsky Inlet, as shown in Figure 3. Sediment data for detected chemicals are provided in Appendix A; sampling locations are listed in Table 2.

### 2.1 Chemicals of Concern

A chemical of concern (COC) is defined in this report as a chemical that is present at concentrations above regulatory criteria in sediments, 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 Sediment Management Standards (SMS; Chapter 173-204 Washington Administrative Code [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 used as an upper regulatory threshold for making decisions about source control and cleanup.

A chemical was identified as a COC for the Boyer Towing property if it was detected in surface or subsurface sediment at concentrations above the SQS and/or CSL. 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 Table 3. For non-polar organics, the measured dry weight concentrations were organic carbon (OC)-normalized to allow comparison to the SQS/CSL.

Additional contaminants may be present in soil, groundwater, stormwater, or storm drain solids at concentrations above regulatory criteria and/or soil-to-sediment or groundwater-to-sediment screening levels. 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 exceedance of marine sediment management standards. These additional contaminants are discussed as appropriate in Section 3.

### 2.2 Sediment Investigations Near Boyer Towing

Sediment samples have been collected from the LDW shoreline in the vicinity of the Boyer Towing property as part of the following investigations:

- **National Oceanic and Atmospheric Administration (NOAA) Duwamish Waterway Sediment Characterization Study (NOAA 1998)**

Five surface sediment samples (WIT281, WST339, CH0024, CH0027, and WIT277) were collected near the Boyer Towing property during October 1997 (Table 1). These samples were analyzed for polychlorinated biphenyls (PCBs). PCBs were detected in all five samples, with total PCB concentrations ranging from 0.011 to 0.15 mg/kg dry weight (DW) (1.7 to 6.2 mg/kg OC). None of the samples exceeded the SQS value for total PCBs.

- **EPA Site Inspection, Lower Duwamish River (Weston 1999)**

Nine surface sediment samples (DR138, DR140, DR141, DR157 to DR159, DR171, DR189, and DR231) were collected near the Boyer Towing property in August and September 1998 as part of EPA's Site Inspection. Samples were analyzed for semivolatile organic compounds (SVOCs), metals, PCBs such as Aroclors and congeners, dioxins/furans, and total organic carbon (TOC). Four samples exceeded the SQS for one or more chemicals. Sample DR157 contained mercury, phthalates, and PCBs above the SQS. This sample is located just outside the mouth of the Trotsky Inlet, north of Parcel A.

Samples DR141 and DR189 contained polycyclic aromatic hydrocarbons (PAHs) at concentrations above the SQS. In addition, sample DR189 contained hexachlorobenzene at 0.03 mg/kg DW (2.0 mg/kg OC), above the SQS of 0.38 mg/kg OC. Sample DR138 contained PCBs at a concentration slightly above the SQS.

- **Sediment Characterization, Boyer Towing Dock Replacement (WR Consulting 2004)**

Three sediment samples (WRC-SS-B1 through B3) were collected in May 2004 from an area near the Boyer barge dock (Parcel B on Figure 2) to evaluate potential effects of replacing the existing timber dock with a new concrete and steel dock at the same location. Samples were analyzed for metals, tributyltin, PAHs, PCBs, and phthalates. One sample exceeded the SQS for zinc; no other SQS exceedances were observed. This study is described in more detail in Section 3.5.

- **LDW Remedial Investigation, Benthic Invertebrate and Co-Located Sediment Sampling (Windward 2005a)**

One surface sediment sample (B5a-1) was collected in conjunction with the benthic invertebrate sampling conducted in 2005. This sample was analyzed for pesticides and PCBs. Low levels of pesticides and PCBs were detected.

- **LDW Phase 2 Remedial Investigation, Round 2 Sediment Sampling (Windward 2005b)**

Two surface sediment samples (LDW-SS85 and LDW-SS86) were collected from this area during the Phase 2 Remedial Investigation (RI) in March 2005. The samples were analyzed for the SMS list of chemicals. None of the analytes were detected above SQS values in this sample. PCBs exceeded the SQS in sample LDW-SS85. No other exceedances were observed.

- **LDW Phase 2 RI Subsurface Sediment Sampling (Windward 2007)**

Three sediment samples were collected from one coring location (LDW-SC40) in February 2006. Samples were analyzed for metals, SVOCs, and PCBs. Total PCBs were detected

above the SQS value in the sample collected at 0 to 1.3 feet depth at 0.16 mg/kg DW (21 mg/kg OC).

### **2.3 Summary of COCs in Sediment Near Boyer Towing**

The following chemicals are considered COCs for the LDW along the Boyer Towing property:

- Metals (mercury, zinc),
- PAHs (acenaphthene, chrysene, fluoranthene, fluorene, phenanthrene),
- Phthalates (butyl benzyl phthalate [BBP], bis[2-ethylhexyl]phthalate [BEHP]),
- PCBs, and
- Hexachlorobenzene.

## 3.0 Boyer Towing Property

### 3.1 Physical Setting

Waterside structures include riprap along the river bank. There are three dolphins in front of Parcel C. There are also two steel ramp towers made out of four steel piling and a steel transfer bridge with wood decking. The bridge connects to the dock on Parcel C (J&A 2007).

### 3.2 Property Ownership

Boyer Towing, Inc. is the owner of Parcels A, C, and E through O. The company has operated all of these parcels as rental property since their purchase (J&A 2007). Members of the Halvorsen family own most of Parcel B and Parcel D.<sup>2</sup> Boyer Towing owns a small portion of Parcel B. The remainder of the Parcel B is leased by Boyer Towing from the Halvorsen family. Tax parcel numbers, addresses, date of purchase, and size of parcel are listed in Table 1.

### 3.3 Stormwater Drainage

Stormwater drainage from Parcels A, B, D, and most of C drains directly to the LDW. Parcels E through L and the western portion of Parcel C are located within the 2nd Avenue S storm drain (SD) drainage basin. Several source tracing samples have been collected within this storm drain basin near Boyer Towing owned or leased parcels. According to draft data from SPU, these include RCB128, CB108, RCB109, and RCB45. Data collected from these SD sample locations will be published in the July 2009 LDW Source Control Status Report (in preparation).

### 3.4 Parcel A (170 S Orchard Street)

Parcel A was residential property at the time it was purchased by Boyer Towing in 1982 from Edwin and Helene Beck. The family dwelling located on this parcel was condemned by the city of Seattle on May 17, 2002, and the home was removed by Boyer Towing in January 2003.

Currently, the parcel is leased by American Civil Constructors (formerly Hurlen Construction) for storage of cement floats and untreated wood (J&A 2007). There are no structures on this parcel, and the ground surface is dirt and grass.

### 3.5 Parcels B and C (7318 4th Avenue S)

Ecology Facility/Site ID	37926748 (Boyer Logistics Inc)
RCRA ID No. – Hazardous Waste Generator	WAD045685990 (12/5/89–12/31/2000; 7/12/04–present)
Industrial General Stormwater Permit	SO3-005598

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<sup>2</sup> Mary Catherine Halvorsen owns Parcel D, which is currently operated as Riverview Marina.

Boyer Towing conducts its towing operations on Parcels B and C. These two parcels, both paved, are operated as a single yard. Boyer Towing petitioned to vacate 3rd and 4th Avenues S in an effort to consolidate parcels B and C (parcel 6871200100 and 6871200210, respectively) on either side of these streets and unify its operations. This request was granted in October 1977, conditional to satisfying the requirements stipulated by various cities and utilities (Seattle Board of Public Works 1977). Boyer Towing was issued a partial release of easement for the westerly 15 feet of 4th Avenue S in May 1992 (Seattle City Light 1992). As a result of the consolidation of parcels, an additional 0.59-acre parcel (B) is considered part of this property but maintains a separate tax ID parcel number (6871200100).

### 3.5.1 Current Operations

Boyer Towing/Boyer Logistics operates tugboats to transport barges primarily to and from Alaska. Operations include loading and unloading of freight from barges. Most cargo is transported in shipping containers or is construction equipment that is too large for containers (J&A 2007). The site has been used for these or similar operations for approximately 40 years (WR Consulting 2004).

A portable building on Parcel B is used as a welder's shop. This building was constructed in 1999. A wooden office building, built in 1959, is located on Parcel C. A steel warehouse was constructed on Parcel C in 1976 and enlarged in 1993 (J&A 2007).

Boyer Towing has two designated areas for hazardous material freight. One area is in the southwest corner of the yard; materials are stored in this area for up to one month (J&A 2007). A second designated hazardous material freight area is located next to the dock. This is used for temporary storage of materials that are about to be loaded onto a barge. Four dry transformers (i.e., containing no oil) are located on the property (J&A 2007).

A diesel fuel tank and a propane tank are located west of the warehouse, along S Fontanelle Street. The tanks are protected by barriers and are on pavement. The propane tank is used to fuel small forklifts. The diesel fuel tank is used for larger forklifts and trucks. Used oil is occasionally pumped from tugboats into containers on the dock. Containers of used oil are recycled by Emerald Recycling (J&A 2007).

Boyer Towing occasionally performs minor maintenance on its tugboats and minor interior repairs on barges. The company occasionally paints boat superstructures at the dock using brushes. Sandblasting and painting of internal tanks has been conducted by a contractor on two occasions. No other shipyard-related activities are performed at these parcels (J&A 2007).

The following materials are used in the regular course of maintenance of Boyer Towing's barges, tugboats, forklifts, and other miscellaneous site equipment (J&A 2007):

Sandblast media (Kleen blast)	Acetylene
Paints (marine epoxies, enamels, latex)	Cutting fluid
Thinners, solvents	Degreasers
Zinc anodes	Solvents
Steel plate	Oil and lubricants

Steel structurals	Wood timbers
Steel pipe	Plywood
Aluminum plate	Dimensional lumber
Aluminum structurals	Electrical wiring
Welding rod	Electrical switches
Welding wire	Electrical breakers/panels
Welding shield glasses	Electrical contact cleaners
Oxygen	

Boyer Towing operations at Parcels B and C generate the following wastes:

Leftover paint and thinners	Used batteries
Scrap steel	Used fluorescent tubes
Scrap wood/lumber	Cardboard boxes
General solid waste	General recyclable wastes
Used oil	Used tow wires
Used antifreeze	

In addition, Reddaway leases a small portion of Parcel B for daytime parking of trailers in front of the warehouse on S Fontanelle Street.

### 3.5.2 Stormwater Drainage

Most stormwater runoff from the site is directed to the LDW via drainage of unpaved portions of the site. Three principal discharge points divert runoff from the property to the LDW. One discharge point is located approximately 70 feet south of the north property line of Parcel C, and drains 1.6 acres. A low point, located on the north end of the wharf at the shoreline, serves as a second discharge point and directs runoff from a roughly 1.6-acre area to the LDW. The third point of discharge is located southwest of the site and drains to the public right-of-way and north to the Trotsky Inlet via the 2nd Avenue S storm drain (Spearman 1993b).

The facility is covered under the Industrial Stormwater General Permit (SO3-005598), originally issued on January 18, 2005 (Ecology 2005). There is no stormwater detention system onsite (SAIC 2007); three oil/water separators drain directly to the LDW. There are nine catch basins on site. Surface drainage at Parcels B and C is shown in Figure 4.

### 3.5.3 Historical Operations

Boyer Towing purchased Parcel C and began leasing Parcel B in 1971.<sup>3</sup> At that time, the property was largely residential (J&A 2007). The current wooden office building was built in approximately 1959; a steel warehouse was added in 1976.

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<sup>3</sup> A small portion of Parcel B was subsequently purchased by Boyer Towing in 1983.

**1967.** Boyer Towing received permission on June 15, 1967, from the Department of the Army to install five dolphins and construct a ramp at the foot of 4th Avenue S (Department of the Army 1967c).

**1971.** Three wood-framed buildings and various types of wood debris were removed from the Boyer Towing property in September 1971 (Iverson Construction 1971).

**1973.** In June 1973, Boyer Towing filed to relocate and extend the cargo ramp, install dolphins, construct a wood wharf, and dredge approximately 2,000 cubic yards of sand and gravel from the LDW (Boyer Towing 1973).

**1975.** Maintenance dredging designed to increase the depth from -2 to -3 mean lower low water (MLLW), removing approximately 2,200 cubic yards of sediment from the mooring area (Port of Seattle 1972), was granted and a Shoreline Management Substantial Development Permit was issued in December 1975 (City of Seattle 1975).

**1976.** The Seattle Engineering Department approved a grading permit in 1976 for Boyer Towing to dredge 2,200 cubic yards of mud and silt. The dredged material was to be mixed with 3,800 cubic yards of earth and used as fill for the property located at 7318 4th Avenue S (Seattle Engineering Department 1976). Additional documents indicate permits were issued allowing Boyer Towing to dredge 3,800 cubic yards of debris in 1975. It is unclear if this was a separate dredging event or if the proposed dredging was modified to reflect the activities that took place (Boyer Alaska Barge Line 1978).

**1979.** City of Seattle Ordinance 107909 vacated the portions of 3rd Avenue S and 4th Avenue S between Parcels B and C. These areas are now part of the Boyer Towing yard (J&A 2007).

**1982.** In June 1982, Boyer Towing filed for permitting allowing them to install two 7-pile dolphins (Department of Fisheries and Game 1982) in the LDW offshore of 2nd Avenue S and S Riverside Drive to accommodate temporary barge moorage (City of Seattle 1982).

**1987.** On June 16, 1987, a U.S. Army Corps of Engineers permit was issued to Boyer Alaska Barge Lines allowing 1,500 cubic yards of sand and silt to be dredged the first year and 800 cubic yards every third year for a total of 3,900 cubic yards in 10 years with upland disposal of dredged material. The permit also included permission to construct 5-pile dolphins and install 550 cubic yards of riprap and 100 cubic yards of sand to facilitate commercial vessel moorage and continued use of an existing moorage facility in the LDW (U.S. Army Corps of Engineers 1987a). A site inspection performed in January 1988 indicated that 1,500 cubic yards of sediment had previously been removed and one of three proposed dolphins had been installed (U.S. Army Corps of Engineers 1988). Dredged material was disposed of at “a northerly portion of the applicant’s property adjacent to Second Avenue South” due to exceedances of the Interim Criteria for uncontained in-water disposal (Ecology 1997).

**1991.** Permit 9105847 was issued in November 1991, which approved dredging activities, development of a stormwater outfall, and the construction of a cargo terminal building, as well as a wharf addition and yard grading and paving. Existing intertidal shoreline conditions included broken concrete riprap and native sand and silt from the area south of the wharf to S Fontanelle Street (City of Seattle 1991c).

**1992.** Boyer Towing retained Manson Construction to replace the creosote pilings with steel pilings; three pile dolphins were installed (J&A 2007).

**1993.** A Shoreline Development permit was issued on January 14, 1993, for an area bounded by 2nd Avenue S on the west and S Fontanelle Street on the south. The permit allowed for the future construction of two dolphins upstream from an existing wharf and a 3,900 sq ft one-story addition to an existing warehouse. Approval was granted to dredge approximately 19,000 cubic yards of sediment (Seattle Department of Construction and Land Use 1993) from an area approximately 750 linear feet located along the eastern edge of the bank, the existing wharf, ramp, and deck (City of Seattle 1993a), as well as the installation of 5,200 cubic yards of riprap. The original project proposal included a wharf extension, which was subsequently retracted (Seattle Department of Construction and Land Use 1993), and then later reincorporated as a 4,400 sq ft addition (Unknown Author 1992). Dredging was proposed to deepen the mooring berth along the wharf face to -8.0 feet MLLW to better accommodate barges. The dredged material was proposed to be disposed of at the Elliott Bay deep-water disposal site. Material unsuitable for deep-water disposal would have been disposed of at an approved upland disposal site of unknown origin. The shoreline slope was proposed to be dredged to increase stability by lowering the angle of the slope. This area would be covered by riprap, sand, and gravel. A stormwater outfall was proposed to facilitate drainage of stormwater collected from Boyer Towing's 7245 2nd Avenue S site (Parcels I and J) as well as the 4th Avenue marine terminal (Parcels B and C) (Unknown Author 1992).

It is unclear if a second dredging event took place in 1993 or if the above mentioned proposal was amended to reflect the reduced volume of dredged material. However, documents indicate that approval was granted to dredge 1,700 cubic yards of material from a location offshore from the Boyer Towing property (Ecology 1993d). This dredging may have been necessary as a result of shoreline sloughing that impacted Boyer Towing's ability to conduct barge loading operations (Spearman 1993f). This specific dredging event was determined to fall under an existing coastal zone consistency determination (PN 93-1-00198) and a water quality certification (PN B-2-11049), which granted a 10-year maintenance dredging window (Ecology 1993a). Dredged material was scheduled to be disposed of at an Ecology-approved upland disposal site (Spearman 1993e).

**1997.** In August 1997, Boyer Towing received a proposal from Peratrovich, Nottingham & Drage, Inc. to dredge 5,000 cubic yards of sediment. The Boyer Towing material was deemed as "clean" and was proposed to be disposed of in Elliott Bay. The adjacent Hurlen material, scheduled to be removed during the same dredging event, was not considered "clean" and was proposed to be disposed of onshore (Peratrovich et al. 1997). This is believed to be the same dredging event conducted by Hart Crowser in 1998 (see below).

**1998.** Boyer Towing hired Hart Crowser to conduct maintenance dredging in the LDW near Parcel B. As part of that work, Hart Crowser prepared a Dredge Material Characterization Report (see Section 3.4.5 below).

**1999.** In 1999 Boyer and Hurlen Construction Company were issued permits to commence dredging activities (Department of the Army 2000). Dredging at the Boyer Towing property was necessary to better accommodate barges with a deeper draft. Water depths were to be deepened

to between -8 feet and -10 feet. 8,000 cubic yards of dredged material was to be removed from just offshore of the Boyer/Alaska waterfront property (Ecology 1999b). Dredged material was tested according to the procedures specified in the Puget Sound Dredged Disposal Analysis (PSDDA) (U.S. Army Corps of Engineers 1973), and the dredged material was approved for disposal at the Elliott Bay open-water disposal site (Department of the Army 1999c).

**2002–2005.** In 2002 Boyer Alaska Barge Lines began the process of establishing permission for facility upgrades (Farr 2003a). Improvements included the removal of 245 existing creosote-treated timber pilings and the installation of 62 steel and 14 plastic fender pilings as well as the replacement of their existing 86-foot by 136-foot timber dock with a new concrete dock of the same dimensions in the same location. Ecology recommended that Boyer Towing take sediment characterization samples to better understand the extent of the impacts of possible sediment disturbance in the proposed construction area. Ecology believed that if cleanup was necessary it would be most cost effective to undertake cleanup measures during construction (EPA 2003). Boyer Towing was instructed by the Department of the Army to minimize disturbance of bottom sediments during the piling removal process and demolition. In an effort to address these requirements, the area was fully surrounded by a floating boom (Farr 2002c). In December 2004, construction of the new pier began with driving two test pilings to determine the optimum piling material and installation methods (Shannon and Wilson 2005a). Boyer Towing completed construction of the south half of the dock during the 2004 and 2005 work window. An extension request to complete the north half of the dock was filed with the Department of the Army in August 2005. The final construction phase of the dock was anticipated to start in late November 2005 (Farr 2005).

During 2005 and 2006, Boyer Towing completed construction of the new dock at Parcel B, located at approximately RM 2.5. The existing dock was replaced with a 100-foot wide by 120-foot long pre-stressed concrete dock. The new dock was built with a concrete pier, 62 structural steel pilings, and 14 untreated fir fender piles (J&A 2007). Prior to dock replacement, WR Consulting, Inc. characterized sediment quality beneath the dock area (see Section 3.5.5 below). No contaminants or areas of concern were identified (WR Consulting 2004).

### **3.5.4 Regulatory History**

Various Seattle Fire Department inspections identified violations on the Boyer Logistics property. From 1987 to 1990, the Seattle Fire Department identified concerns with proper labeling of the Hazardous Materials Temporary Area and installing no smoking signs at various locations throughout the buildings and property. Corrective actions also included adequately securing all compressed gas cylinders to prevent them from falling or being knocked over (City of Seattle Fire Department 1984, 1985, 1989). Additional violations included not making a hazardous materials permit or facility schematic diagram readily available (City of Seattle Fire Department 1989). Above ground tanks required approved fire control equipment, housing within secondary containment, and proper labeling (City of Seattle Fire Department 1990).

On September 10, 1991, the Department of Ecology performed a site inspection of the Boyer Towing property in response to a spill. Two days prior to the Ecology site visit, a 1,500-gallon heavy petroleum spill had occurred when a tank seam failed. The spill material had been stored on site for three weeks and was scheduled to be used in asphalt. The spilled material was

extremely thick and did not migrate far, or sink more than a few inches into the soil, before Northwest Enviroservice pumped the liquid off and put sorbent on the ground. The tanks were moved to a new location and sorbent pads were placed around them to absorb the remaining gasoline product; however, the inspectors noted that a visible black stain was still present at the spill location. No catch basins were identified in the vicinity of the spill. At the time of the inspection, Northwest Enviroservice was actively removing the contaminated soil and sorbent on site and along 2nd Avenue, where the spill had spread. The Ecology inspector recommended that the yard drainage plans should include a berm for the oil and hazardous material storage area (Ecology 1991).

A complaint response compliance inspection was performed by Ecology on July 1, 1998, in response to dangerous wastes being stored in a cargo container with leaking drum(s). During the inspection Ecology discovered dangerous wastes on site that originated from the Ketchikan Landfill in July 1996. Paint-related wastes were also found to be leaking but had remained inside the cargo container. No violation was issued because the material was considered household hazardous waste. However, Ecology strongly encouraged Boyer Towing to review their tracking procedures to prevent similar problems in the future (Ecology 1998b).

In May 2002, a 10-day transfer facility compliance inspection was performed at Boyer Towing. No waste was identified on site at the time of the inspection; however, inspectors were able to determine that the facility was currently operating as a 10-day transfer facility. During the facility inspection an employee noted that Boyer Towing had a spill in 2001 that reached the LDW. Information regarding the quantity and type of the spill was not available in the documents reviewed by SAIC. Compliance problems related to this visit included the lack of a written contingency plan and emergency procedures, failure to conduct weekly hazardous inspections of waste areas and associated containers, inadequate preparation and maintenance of personnel training plans, and failure to update Boyer Towing's status from a transporter to a 10-day transfer facility (Ecology 2006).

Seattle Public Utilities (SPU) inspected the site on January 30, 2003 (SAIC 2007). The inspection noted that seven high-risk pollution generating activities occur at this property, including fueling operations, vehicle and equipment washing and cleaning, truck loading and/or unloading of materials, outdoor portable container storage, liquid storage in aboveground tanks, storage of non-containerized materials outdoors, and vehicle and equipment repair. A number of corrective actions were identified as a result of this inspection, including the following (SPU 2003e):

- Implement a spill prevention and cleanup plan;
- Provide additional spill kits near the waste oil storage tanks, near the diesel fueling tank, and on or adjacent to the barge where unloading of materials occurs;
- Instruct employees on use of the spill plan and containment/cleanup materials;
- Clean all nine catch basins and three oil/water separators;
- Discontinue vehicle washing near the catch basin north of the main office, or collect wash water and transport offsite to an approved treatment facility, reuse the wash water in a closed-loop recycling system, or obtain a permit from King County to discharge wash water to the sanitary sewer;

- Cease equipment washing near the catch basin north of the main office, or implement one of the options listed above for vehicle washing;
- Properly store portable liquid containers (cover and label all drums and buckets, check them daily for leaks and spills, sweep storage areas regularly, and dispose of all waste according to state and local requirements); and
- Properly store and dispose of solid materials and wastes, including batteries.

The inspector noted that materials/wastes that pose erosion, leaching, or spilling concerns appear to have been stored for some time without management. SPU requested that most of these materials be removed. Runoff at the site appeared to flow mainly to the catch basins, although a potential for direct flow to the LDW was noted. Materials include degreasers (caustics), dirt, petroleum products, and battery acid. A spill from a leaking hydraulic jack was also observed. A site drawing shows the “bone yard area” located in the northern corner of the parcel, and two aboveground storage tanks in the southwest corner of the property.

A solids sample was collected from the southern-most oil/water separator at the property on February 11, 2003 (SPU 2003a); results are described in Section 3.4.5 below. A certificate from Marine Vacuum Service, Inc., dated February 24, 2003, indicates that all catch basins, sumps, and oil/water separators at this site were pumped of all liquid and solid materials, washed with a high-pressure washer, inspected, and were certified clean (SPU 2003a).

SPU conducted a follow-up inspection of the property on April 17, 2003, and no additional actions were required (SPU 2003c). The facility was determined to be in compliance with the stormwater pollutant source control requirements under the City’s Stormwater, Grading, and Drainage Code (SMC 22.800) at that time. The facility was working to prepare a Stormwater Pollution Prevention Plan (SWPPP). According to the inspector’s notes, Boyer Towing owns six tugboats and one barge. Twelve forklifts of various sizes are located on site. Occasionally, forklifts and other miscellaneous equipment are cleaned or washed on site. According to a site inspection, there are nine catch basins on site and a petroleum sheen was identified in an unknown number of the catch basins. Three oil/water separators are located along the waterfront and drain to the LDW. There were nine forklifts and three large cranes on site during the time of the inspection. A 10,000-gallon double-walled diesel above-ground storage tank is also located on site (SPU 2003b).

A May 2006 facility inspection noted no violations; however, the Ecology representative indicated that Boyer Towing was not currently listed as a 10-day transfer facility. A previous inspection conducted in 2002 indicated that activities were being conducted concurrent with requiring a 10-day transfer qualification. The inspector noted that during the site visit he was given information stating that one shipment of contaminated dirt, DOT Class 9 waste, did pass through the facility the previous year. Boyer Towing was informed that if their current activities continued, the facility qualified as a 10-day transfer and should be listed accordingly (Ecology 2006).

The most recent SPU inspection at this property was conducted on July 5, 2007; this was a follow-up inspection (previous inspection date unknown) which had identified 10 corrective actions needed at the site. At the time of the July 5, 2007, inspection, the facility was in

compliance with stormwater pollutant source control requirements (Ecology 2009, in preparation).

### **3.5.5 Environmental Investigations and Cleanups**

#### **Sediment Sampling in Support of Dredging (1993)**

Spearman (1993g) collected six sediment samples in support of proposed dredging near Boyer Towing's barge ramp slip. Samples were analyzed for PCBs, total petroleum hydrocarbons (TPH), and Toxicity Characteristic Leaching Procedure (TCLP) metals (Spearman 1993g). PCBs were detected in all six samples. Concentrations of Aroclor 1254 ranged from 0.055 to 0.073 mg/kg DW; concentrations of Aroclor 1260 ranged from 0.051 to 0.13 mg/kg DW (Spearman 1993g). No other Aroclors were detected. TPH ranged from 210 to 440 mg/kg. Results are listed in Appendix B5.

#### **Dredge Material Characterization (1998)**

Hart Crowser conducted sediment characterization sampling at the Boyer Towing and Hurlen Construction Company properties in August 2008, in support of the permitting process for maintenance dredging at the Hurlen<sup>4</sup> and Boyer berthing areas (Hart Crowser 1998b). Two core samples were collected from each of the two Dredge Material Management Units (DMMUs) at the Boyer site; composite samples from each core (C5 and C6) were analyzed for metals, tributyltin, PCBs/pesticides, PAHs, phenols, phthalates, and other SVOCs. PCBs, PAHs, phthalates, and one of eight other SVOCs were detected in one or both samples (Hart Crowser 1998b). All sample results were below PSDDA screening levels except for PCBs in sample C6 (0.238 mg/kg DW). However, biological testing results indicated that the proposed dredge materials did not exhibit toxicity effects relative to the PSDDA non-dispersive open water disposal criteria, and therefore met the suitability criteria for disposal at the Elliott Bay PSDDA unconfined open-water disposal site (Hart Crowser 1998b).<sup>5</sup> Sampling locations and results are provided in Appendix B1.

On August 28, 1998, approximately 8,000 cubic yards of material was removed from the pier face and adjacent offloading berth to restore the draft depth to -10 feet MLLW (Hart Crowser 1998b). Berthing areas at Boyer Towing were authorized to an elevation of -8 feet MLLW. Boyer proposed to deepen the existing berth to a uniform elevation of -10 feet MLLW to accommodate ocean-going tugboats and barges year round.

#### **SPU Stormwater Pollution Prevention Sampling (2003)**

Following the January 30, 2003, SPU inspection, a solids sample was collected by SPU from the forebay of the southern-most oil/water separator on Parcel B on February 11, 2003 (SPU 2003a).

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<sup>4</sup> Hurlen Construction was located along Riverside Drive to the south of the Boyer Towing property.

<sup>5</sup> Sample results for the Hurlen Construction sediments exceeded PSDDA open-water disposal criteria for PAHs and dibenzofuran.

Results are provided in Appendix B3. The sample was analyzed for phthalates, PCBs, and selected metals. Chemicals detected at concentrations above the SQS are listed below<sup>6</sup>:

Chemical	Concentration	SQS Exceedance Factor
Cadmium	6.3 mg/kg DW	1.2
Zinc	1,120 mg/kg DW	2.7
BEHP	53 mg/kg DW	40
BBP	10 mg/kg DW	72
Diethylphthalate	4.6 mg/kg DW	2.7
Dimethylphthalate	2.8 mg/kg DW	1.9
Di-n-octyl phthalate	6.1 mg/kg DW	3.7

It should be noted that the SQS and CSL values do not apply to storm drain solids. 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.

Sample results were also compared to current Model Toxics Control Act (MTCA) Method A or B soil cleanup levels as published in the Cleanup Levels and Risk Calculations (CLARC) database.<sup>7</sup> The lowest cleanup level for each chemical was used for the comparison.

Chemical	Concentration	MTCA Exceedance Factor
Arsenic	20 mg/kg DW	30
Cadmium	6.3 mg/kg DW	3.2
Lead	308 mg/kg DW	1.2

### Sediment Characterization for Boyer Towing Dock Replacement (2004)

In 2004, Boyer Towing proposed to replace the timber barge dock at Boyer Towing (Parcels B/C) with a new steel and concrete dock in the same location. As a condition for authorization of the project by U.S. Army Corps of Engineers (USACE), Boyer Towing was required to characterize sediments beneath the existing dock (WR Consulting 2004).

A sediment sampling and analysis plan was prepared in July 2003 (WR Consulting 2003b) by WR Consulting, Inc. for Boyer Towing. In May 2004, eight sediment cores were collected to a depth of 3 to 4 feet (WR Consulting 2004). Sampling locations were selected to be representative of surface sediment conditions directly beneath the dock. Surface sediment samples were analyzed from three locations and were analyzed for SMS constituents. Although PCBs, PAHs,

<sup>6</sup> It should be noted that TOC data were not available for this sample; to estimate whether concentrations of phthalates exceed the SQS values, an average TOC of 2.82% was calculated, based on available data from other studies.

<sup>7</sup> <https://fortress.wa.gov/ecy/clarc/CLARCHome.aspx>

phthalates, dibenzofuran, chromium, copper, lead, and zinc were detected in one or more samples, only zinc in sample WRC-SS-B3 exceeded the SQS (479 mg/kg).

Sampling locations and results are provided in Appendix B2.

### 3.6 Parcel D (7200 2nd Avenue S)

Boyer Towing's 104(e) response did not include information about this parcel. It is owned by Mary Catherine Halvorsen, and is the current location of Riverview Marina. It is listed in King County tax records as "River View Marina." Separate CERCLA 104(e) information requests were sent to Mary Catherine Halvorsen and River View Marina; responses were unavailable at the time this Supplemental Data Gaps Report was prepared. The parcel is currently leased to Richard Schultz (J&A 2007).

### 3.7 Parcel E (7201 2nd Avenue S)

Parcel E was residential prior to purchase by Boyer Towing from Edwin and Helene Beck in 1982. Several family homes were located on the parcel; these have been removed by Boyer Towing.

From 1996 until 2000, Red Samm Construction used this parcel storage of equipment, such as crane booms. These were stored in 20-foot shipping containers (J&A 2007).

Kelly-Ryan began leasing Parcel E on January 1, 2003, and is the current tenant. The property is used for storage of equipment, such as excavators, front-end loaders, bulldozers, and crane booms. Equipment is stored in a 20-foot shipping container (J&A 2007).

Boom Boys is also a tenant on this property (since February 1, 2005); the company stores equipment at this location, including crane booms and counterweights for cranes (J&A 2007).

The parcel is unpaved (J&A 2007).

### 3.8 Parcels F and G (7225 2nd Avenue S)

Ecology Facility/Site ID	82885756 (BJ Truck Wrecking, B & J Auto Wrecking Ltd)
RCRA ID No. – Hazardous Waste Generator	WAD000230342 (4/19/94-12/31/97)

Parcels F and G are fenced together and are operated as a single site.

In March 1974, Ed Mecum (property owner at that time) applied for and received a Building Use Permit from the City of Seattle to construct an 8-foot fence around the property and establish a wrecking yard at this location (City of Seattle 1974). The application lists the business name as Herbert's Auto Parts. No other information about this operation was available.

Prior to about 1994, 2 feet of contaminated soil were reportedly removed from this site (J&A 2007). B&J Pickup & Truck Wrecking leased the property from the owner, Judith Campbell, from 1994 to 1999, when Boyer Towing purchased the parcels. In September 1994, B&J Truck Wrecking retained Marsh Industrial Research to collect samples from four boreholes at the property. Samples were analyzed for TPH. Concentrations ranged from <20 mg/kg to 25,000 mg/kg (Marsh 1994). Sampling locations and results are shown in Appendix B4. An additional 2 feet of soil was removed from the two parcels (approximately 829 cubic yards of soil) (J&A 2007). The excavated area was backfilled with gravel; the site currently is covered with gravel.

Former Boyer Towing tenants at this property include (J&A 2007):

- PCT Construction (November 1, 2003 to January 1, 2006)—storage of equipment such as scaffolding and wood materials
- Sound Delivery (August 15, 2006 to November 30, 2006)—parking of highway trailers
- Kelly-Ryan (December 1, 2006 to May 31, 2007)—storage of equipment such as excavators, front-end loaders, bulldozers, and crane booms

The current tenant is CDM Constructors, Inc. (since June 1, 2007). The company is a contractor, and stores equipment such as staging and scaffolding materials on these parcels (J&A 2007).

### **3.9 Parcels H and I (7235 2nd Avenue S)**

Parcel H and I were purchased by Boyer Towing from Kelly-Ryan in 2002 and 2001, respectively. Kelly-Ryan had operated at this site under Resource Conservation and Recovery Act (RCRA) ID WA0000981746 (SAIC 2007). Kelly-Ryan currently leases both parcels from Boyer Towing, and uses the property for storage of equipment including excavators, front-end loaders, bulldozers, and crane booms. No structures are present; the ground surface is unpaved (J&A 2007).

### **3.10 Parcel J (7245 2nd Avenue S)**

Parcel J was purchased by Boyer Towing in 2001. No structures were present at that time and none have been constructed on this parcel. The ground surface is unpaved. Western Marine Construction has leased the northern portion of this parcel since November 1, 2001. It uses the property for storage of heavy equipment and shipping containers (J&A 2007).

### **3.11 Parcel K (7265 2nd Avenue S)**

This parcel was purchased by CCK Partnership from Diorio Construction Company in January 1993; it was subsequently purchased by Boyer Towing in October 1993. A 4,000-square foot wooden shop building with a metal roof is present at the site. The ground surface is paved (J&A 2007).

The entire parcel was leased by Wells Trucking from November 1, 2001, until March 15, 2005. The northern portion was used to park trailers, and the building located on the southern end of the parcel was used for truck repair and office space.

The Wells Trucking facility was inspected by SPU on September 30, 2002 (SPU 2002a). Three catch basins are located along the western boundary of this site; however, at the time of the inspection they were covered with shipping containers. Stained soil and rocks were observed in the vehicle parking area. Wash water from vehicle washing drains to the catch basins or to the street, and then to the storm drain system and ultimately the 2nd Avenue S storm drain.

Recommendations included: removing shipping containers that covered the three catch basins; cleaning the catch basins; cleaning parking lots; refraining from washing vehicles in areas where water is discharged to storm drains; completing a spill prevention and cleanup plan; labeling spill kits; and educating staff (SPU 2002d).

At the time of a follow-up site visit by SPU on December 13, Wells Trucking was in the process of cleaning out the catch basins. Approximately 35 gallons of a black sludgy material with a strong petroleum odor and sheen had been removed, and additional material remained to be removed. According to the SPU inspector, there appeared to be a tidal influence on the catch basins; water entered the southern catch basin at high tide (SPU 2002a).

The site was re-inspected on December 18, 2002; catch basin cleaning had been completed. A total of 110 gallons of oily sludge was removed and placed in 55-gallon drums. The drums were to be disposed of offsite. The parking area had been cleaned and all other recommendations addressed. Wells Trucking personnel indicated that vehicles would no longer be washed onsite. No additional actions were identified (SPU 2002a, SPU 2002e).

In conjunction with oil/water separator sampling at Parcels B/C (see above), samples were collected on February 11, 2003, from two 55-gallon drums of sediment removed from the three catch basins (SPU 2003a). Results are shown in Appendix B3. Samples were analyzed for phthalates, PCBs, and selected metals. Phthalates, cadmium, copper, and zinc were detected at concentrations above SQS sediment screening levels. BEHP (150 mg/kg), BBP (5.3 mg/kg), and di-n-octylphthalate (4.2 mg/kg) were detected, with exceedance factors of 113, 38, and 2.6, respectively. Zinc (2,570 mg/kg) exceeded the sediment screening level by a factor of 6.3; cadmium and copper slightly exceeded the screening levels. In addition, arsenic (30 mg/kg) and lead (421 mg/kg) exceeded MTCA soil cleanup levels, with exceedance factors of 45 and 1.7, respectively.

<b>Chemical</b>	<b>Concentration</b>	<b>SQS Exceedance Factor</b>
Cadmium	9 mg/kg DW	1.8
Copper	527 mg/kg DW	1.4
Zinc	2,570 mg/kg DW	6.3
BEHP	150 mg/kg DW	113
BBP	5.3 mg/kg DW	38
Di-n-octyl phthalate	4.2 mg/kg DW	2.6

Sample results were also compared to current MTCA Method A or B soil cleanup levels as published in the CLARC database.<sup>8</sup> The lowest cleanup level for each chemical was used for the comparison.

Chemical	Concentration	MTCA Exceedance Factor
Arsenic	30 mg/kg DW	45
Cadmium	9 mg/kg DW	4.5
Lead	421 mg/kg DW	1.7

In 2005, the parcel was leased to two new tenants. Hogland Transfer uses the northern portion for equipment storage, including staging of highway trailers. Bill’s Mobile Service uses the building on the southern portion of the parcel for highway tractor repair (J&A 2007). No inspections have been conducted at these properties.

### 3.12 Parcel L (7201 Occidental Avenue S)

Parcel L, which was purchased by Boyer Towing in 2001 from Kelly-Ryan Inc., is covered with gravel. No buildings are present at this parcel. It was leased by Quality Asphalt Paving from February 1, 2003, until July 31, 2005, for storage of construction equipment (J&A 2007). American Civil Constructors (formerly Hurlen Construction) has leased this parcel since December 1, 2006. The property is used for storage of equipment including concrete floats, untreated wood, and general construction supplies (J&A 2007).

### 3.13 Parcel M (7417 4th Avenue S)

Ecology Facility/Site ID	58482618 (Seattle Sludge Interim Project)
RCRA ID No. – Hazardous Waste Generator	WAD988503066 (2/27/92-2/28/92; 3/16/92-12/31/92)

Parcel M includes a 22,500-sq ft concrete block warehouse building. This warehouse was believed to be constructed in 1964 (J&A 2007). The ground surface is paved. Boyer Towing has three tenants on this parcel:

- WHECO (July 15, 2001 to present)—repair of crane booms
- American Environmental (April 1, 2003 to present)—office space
- North Pacific Seafoods (September 7, 2005 to present)—storage of fishing nets

In addition, Northland Services rented warehouse space during April 2004 for storage of furniture.

An SPU inspection was conducted at WHECO on October 4, 2002; no further action was required (SPU 2002b, SPU 2002c). One catch basin was identified on the site; the lid was sealed with concrete and could not be removed. At the time of the inspection, water was flowing out of

<sup>8</sup> <https://fortress.wa.gov/ecy/clarc/CLARCHome.aspx>

the drain (north) onto Fontanelle Street. The drain appeared to be connected to roof drains at the site (SPU 2002b). Inside the building, three floor drains were observed. Two were capped; the northernmost drain was slotted, and therefore could collect material such as metal shavings.

During a visit to a nearby facility on October 7, 2002, inspectors checked a vault in the WHECO parking lot. Tests were conducted on October 7 and October 16 to determine if the flow of water from the building floor drains into the sanitary system (SPU 2002b). Water flow and dye confirmed that water flowed from the building drains to a vault in the warehouse adjoining the WHECO facility, to a vault in the south parking lot, and then into the 8-inch sanitary sewer line running along Fourth Avenue S (SPU 2002c).

A follow-up investigation was conducted by SPU at WHECO on November 20, 2007. The address listed for this inspection was 315 S Fontanelle Street. The facility was determined to be in compliance with stormwater pollutant source control requirements at that time (Ecology 2009, in preparation).

SPU inspected the American Environmental Construction facility on January 17, 2008. A previous inspection at this property (date unknown) had identified 10 corrective actions at this property; at the time of the January 17, 2008, inspection, the facility was in compliance with stormwater pollutant source control requirements (Ecology 2009, in preparation).

SPU conducted an initial inspection of the North Pacific Seafoods facility on November 29, 2007. One corrective action was identified. The facility was determined to be in compliance with stormwater pollutant source control requirements (Ecology 2009, in preparation).

Ecology and EPA databases list this site as the Seattle Sludge Interim Project, a nonhazardous waste treatment and disposal facility (RCRA ID WAD988503066; inactive). No other information was available.

### **3.14 Parcel N (7410 5th Avenue S)**

Parcel N was purchased by Boyer Towing in 2004. Two buildings are located on this parcel: a cinder block warehouse constructed in 1966, and a prefabricated steel building built in 1952. Approximately half of the parcel is paved with concrete; the other half is gravel (J&A 2007).

Former tenants at this parcel include (J&A 2007):

- Willingham, Inc. (September 1, 2005, to October 31, 2006)—storage of bus seats
- Bowhead Transport, LLC (March 2007 to June 30, 2007)—construction of an aluminum float in steel building

American Civil Constructors (formerly Hurlen Construction) has leased a portion of this parcel since December 1, 2006 for storage of pilings.

King County tax records list the property name as Alki Construction Co., presumably a previous owner and/or tenant at this location. Files reviewed contained a permit (issued June 23, 1982) for

Alaska Washington Building Materials to conduct non-marine cutting and welding at this property (Ecology 2007b).

### **3.15 Parcel O (7410 5th Avenue S)**

Parcel O was purchased by Boyer Towing in 2001. No structures were present at that time and none have been constructed on this parcel. The ground surface is unpaved. The parcel was leased to JM Asphalt from January 1, 2005, to February 1, 2006, for truck parking. American Civil Constructors (former Hurlen Construction) has been leasing this parcel since summer 2006 for storage of construction materials (J&A 2007).

King County tax records list the property name as Alaska Washington Company.

## 4.0 Data Gaps

Data gaps and action items for the Boyer Towing property were identified in the EAA-2 Data Gaps report and SCAP. These are summarized below; additional action items identified as a result of the updated information presented in the current report are presented below in italics.

### 4.1 Stormwater Discharge

#### Data Gaps:

Storm drains along the western end of Parcel B, southern ends of Parcels B and C, and Parcels E through L discharge to the 2nd Avenue S SD. Except for Boyer Logistics operations at Parcels B and C, none of these parcels are covered by a National Pollutant Discharge Elimination System (NPDES) permit. Additional information is needed to assess whether activities at these parcels may pose a potential risk of sediment recontamination.

#### Action Items:

- SPU will conduct source control inspections at facilities located on Boyer Towing property to verify that they comply with applicable regulations and best management practices (BMPs) *including new tenants at Parcel J (former Wells Trucking site).*
- If stormwater discharge to EAA-2 is confirmed, Ecology and SPU will evaluate the need for stormwater characterization and will review Boyer Towing's SWPPP to ensure that contaminant releases to sediment from stormwater are controlled. *Stormwater from Parcels B, C, and E through L drains to the 2nd Avenue S storm drain. The most recent SWPPP is dated 1993. Ecology will request Boyer Towing to prepare an updated SWPPP for its operations at Parcels B and C.*
- *Ecology will review source tracing data collected by SPU for the 2nd Avenue S SD drainage basin (when it becomes available) to identify whether the Boyer Towing owned or leased parcels are a potential source of contaminants to the Trotsky Inlet and the LDW.*

### 4.2 Surface Runoff

#### Data Gaps:

The EAA-2 Data Gaps report stated that additional information is needed to determine whether contaminants on the ground surface could flow via surface runoff (sheet flow) to the inlet or to the LDW. Surface runoff on Parcels B and C flows to three oil/water separators located near the LDW shoreline, and is then discharged to the LDW. Boyer Towing is covered by an active NPDES permit (industrial stormwater general permit). Ecology continues to monitor activities at this property through the NPDES permit program and by conducting periodic inspections to confirm that the facility is in compliance with stormwater regulations and permit conditions. No additional action items were identified.

### 4.3 Groundwater Transport

#### Data Gaps:

Historical information indicates that Parcels F and G were used as an automobile and/or truck wrecking yard between the 1970s and 1990s (City of Seattle 1974, J&A 2007). Petroleum-contaminated soil (up to 25,000 mg/kg) has been removed from this property; however, there is no information in the documents reviewed during preparation of this Data Gaps report to indicate that confirmation samples were collected after cleanup. Samples were analyzed for petroleum hydrocarbons only.

Given the historical uses of this property, and the documented releases of petroleum hydrocarbons to soil, it is possible that other contaminants may be present in soil at this location. If present, these contaminants could migrate to groundwater and be transported to the LDW.

#### Action Items:

- *Ecology will request additional data from the property owner and/or operator regarding potential soil contamination at Parcels F and G, and will evaluate the need for additional characterization to determine whether this property poses a risk of LDW sediment recontamination.*

### 4.4 Other Site Information

#### Data Gaps:

The response to EPA's CERCLA 104(e) Request for Information letter to Boyer Towing/Boyer Logistics (reviewed during preparation of this Data Gaps report) contained little or no information on Parcel D, which is owned by Mary Catherine Halvorsen and is currently occupied by River View Marina.

#### Action Items:

- EPA has issued a CERCLA 104(e) letter to the facility and property owners/operators to obtain additional information related to historical sources of contamination at this site [Complete].
- EPA and Ecology will review responses to the CERCLA 104(e) letter [Complete].
- *Ecology will review responses to CERCLA 104(e) letters submitted by River View Marina and Mary Catherine Halvorsen for information related to historical sources of contamination at Parcel D.*

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