State of Oregon  
Department of Environmental Quality  
Memorandum

To: ECSI #2062 file  
Date: September 17, 2014

From: Tom Gainer, Project Manager

Subject: No Further Action  
Former Myers Container Site  
10103 N.E. Marx Street, Portland, Oregon

Introduction
This memo provides a summary of investigation and cleanup action conducted at the subject site. Various operators conducted investigations, source control measures and a soil removal to primarily control off-site migration of polychlorinated biphenyl (PCB)-contaminated soil in stormwater. The primary focus was to prevent recontamination of a recently placed sediment cap in Johnson Lake. Based on evaluation of on-site human health and off-site ecological risks and completed remedial actions, DEQ determined that no further action is required.

Site Description and History
The Site is an approximately 5.6 acre plot of land located east of Interstate 205 (I-205), near the east-west trending Columbia Slough, at 10103 N.E. Marx Street in Portland, Oregon (Figure 1). The Site is currently occupied by a large warehouse, divided into two sections, and an open yard area (Figure 2). Approximately 80 percent of the Site consists of pea gravel and dirt covered yard. Historical photos reviewed suggest the current warehouse was constructed prior to 1977.

Along the eastern property line of the Site is a small, depressed pond area (East Pond). The East Pond receives unauthorized runoff via sheet flow and pipe flow from Auto Salvage 205 and other surrounding properties to its south and east. A trench also carries stormwater from the neighboring property (Allied Waste) to the south to the East Pond. Based on the topographic maps, stormwater from a portion of the central yard also drains to the East Pond. The discharge pipe for the East Pond is located at the west end of the East Pond. This pipe runs west underground to a retention pond (West Pond) along the western fence line of the Site that discharges through an approximately 500 foot long Oregon Department of Transportation (ODOT) culvert beneath Interstate 205 to Johnson Lake. In 2008, a catch basin was installed in the center of the main Intermediate Bulk Container (IBC) storage yard on the Site to collect and convey water from the storage yard to the West Pond by a separate underground pipe.

The Site is surrounded by the following:
- Interstate 205 (I-205) is located to the west with Johnson Lake located on the far (west) side of I-205;
- the ODOT East Portland Maintenance Yard is located to the southwest of the Site;
- a vehicle salvage yard (Auto Salvage 205) and a Business Park are located along the Northeast portion of the Site’s property line; and
• a commercial waste handling and recycling company, Allied Recycling and Disposal (formerly River City), is located east and southeast of the Site.

Beginning in 1977, Myers Drum Company (a subsidiary of Kaiser Steel Corporation) leased the Site from Wayne J. Easley and Robert Kauffman for the purpose of operating a steel drum reconditioning facility. The lease provided for development of the property, including storm water drainage, fencing and construction of a warehouse and production building. Myers Drum operated its drum reconditioning facility on the Site until December 1984.

In December 1984, IMACC purchased certain assets from Kaiser Steel Corporation, which included the assets used in the Myers Drum’s steel drum reconditioning business at the Site. From December 1984 to 1996, IMACC (dba Myers Container Corporation) operated a steel drum reconditioning facility on the Site under lease from Robert J. Kauffman, who obtained ownership of the real property in December 1980.

In 1996, IMACC formed a joint venture with H. Villalba Enterprises, Inc. to form Container Management Services, LLC, a California limited liability company (CMS-CA). CMS-CA operated a steel drum reconditioning on the Site until approximately 2000 when the operations were transitioned to Intermediate Bulk Container (IBC) processing. IMACC sold the assets of its IBC processing at the Site to a third party, Container Acquisition, LLC (now known as Container Management Services, LLC – Delaware) (CMS-DE), in October 2007. CMS-CA’s lease rights were assigned to CMS-DE at the same time. From October 2007 to the present, CMS-DE has leased and conducted the IBC processing operations at the Site.

**Conceptual Site Model**

Site contamination is primarily PCBs in near-surface soil resulting from historic container management operations, and to some lesser degree from stormwater run-on from adjacent properties. The depth of soil contamination appeared to be limited to 1.5 feet below ground surface (bgs), with no evidence of migration to groundwater. Soils were also analyzed for organochlorine pesticides, metals, total petroleum hydrocarbons, and semi-volatile organic compounds, but these compounds were either below laboratory detection limits or well below occupational worker risk-based concentrations (RBCs). Surface soil contaminants migrated with stormwater into the on-site collection systems and then discharged to Johnson Lake via the ODOT culvert beneath I-205. Therefore, complete exposure pathways for PCBs included ecological receptors to Johnson Lake sediment and occupational workers to on-site surface soil.

**Hazardous Substance Releases**

The facility was a large quantity hazardous waste generator and received DEQ hazardous waste violations in 1986 and 1997 concerning labeling and record-keeping requirements.

The facility does not currently generate or manage hazardous waste.

**Investigations and Source Control Measures**

**Underground Storage Tanks**

Two 2,000-gallon underground storage tanks (gasoline and diesel) were decommissioned by removal in 1997. Significant soil contamination was not detected and groundwater was not

DEQ Site Assessment prepared an 8/11/1997 Strategy Recommendation for the Site after PCBs were detected in a City of Portland investigation that included Johnson Lake, which suggested further sampling and investigation of the Site. A Preliminary Assessment (PA) was submitted in October 2001, followed by an Expanded PA (XPA) with soil sampling in January 2002, which showed elevated levels of PCBs (310-660 ug/kg) and hydrocarbons located primarily in the East and West Ponds.

Source control measures were conducted in the fall of 2003 based on the XPA findings. About 0.5 to 1 foot of soil/sediment was excavated from the East and West Ponds, beneath the central yard catch basin, and beneath the pipeline (replaced) connecting the two ponds. The two ponds were re-built with liners and clean fill/rock. Approximately 668 tons of contaminated soil and sediment were removed and disposed off-site. These source control measures adequately addressed PCB contamination along the stormwater migration pathway (i.e., two ponds and connecting pipeline and catch basin), but did not address residual PCB contamination in Site shallow soil.

Final Soil/Sediment Removal (2012-13)
During the completion of the Johnson Lake sediment cap in 2011-12, elevated levels of PCBs were detected in sediment at the ODOT culvert discharging into Johnson Lake. This finding and the goal to prevent recontamination of the Johnson Lake sediment cap prompted two remedial actions to address potential source material to Johnson Lake: removal of PCB-contaminated legacy sediment within the ODOT culvert, and removal of PCB-contaminated shallow soil on the Site.

ODOT Culvert
CMS-DE and IMAAC jointly engaged contractors to remove about 16 tons of legacy sediment from the I-205 culvert in the fall of 2012.

On-Site
In October and November 2012, two rounds of approximately 216 soil samples were collected on the Site across 58 grid cells of about 3,600 square feet each. Five remedial alternatives were evaluated. Soil loss and stormwater loading calculations showed that removal of 11 cells exceeding the occupational worker RBC (0.56 mg/kg) and replacement with clean fill would result in acceptable levels to prevent recontamination of the Johnson Lake sediment cap; this is the remedial alternative selected by DEQ (Figure 3). DEQ provided copies of the proposed remedial action to nearby properties and the current property owner and did not receive any comments.

The soil removal plan was implemented in October and November 2013, including:
- soil removal in the 11 grid cells to 0.5-1.5 feet bgs;
- confirmation samples, with additional excavation as needed to achieve less than 0.56 mg/kg PCBs;
• removal of the central yard catch basin;
• placement and grading of at least 6 inches clean fill in excavated soil areas, with surface flow sloping towards the West Pond;
• sediment removal in both ponds, which were re-built with liners and clean fill/rock, plus surface soil removal within 50 feet of the pond perimeters to provide a clean buffer; and
• expansion and re-design of the West Pond to promote settling of suspended stormwater sediment.

**Stormwater**
The Site discharges stormwater to the ODOT I-205 culvert under a 1200-COLS permit that is administered by the Portland Bureau of Environmental Services. Ongoing stormwater discharges from the site will continue to be regulated through evolving iterations of 1200-COLS permit best management practices.

A portable stormwater treatment system was used from March 2012 to November 2013 to protect Johnson Lake during I-205 culvert and Site soil remedial activities. Site stormwater and culvert cleaning wash water was treated and monitored prior to discharge into the culvert and subsequently into Johnson Lake.

Post-soil removal stormwater samples collected from the Site discharge location on February 24 and April 17, 2014 did not detect PCBs (with detection limits of 0.11 and 0.019 ug/L per Aroclor, respectively). This indicates that the 2013 on-site soil removal activities described above reduced PCBs in stormwater to acceptable levels to prevent recontamination of Johnson Lake, and supports the soil loss and stormwater loading calculations that provided the basis for the extent of soil removal.

**Risk Evaluation**
The site and surrounding properties are zoned industrial and beneficial uses are expected to remain industrial for the foreseeable future. Site cleanup reduced soil contamination to levels protective of occupational workers. There is no significant on-site ecological habitat. On-site source control measures adequately addressed potential off-site contaminant migration by stormwater to Johnson Lake.

**Public Comment**
DEQ provided public notice and opportunity to comment (July 1-31, 2014) in accordance with ORS 465.320. Owens-Brockway Glass Container, Inc. and Dalton, Olmsted & Fuglevand, Inc. submitted the following comments, with DEQ responses in italics:

1. The NFA Proposal states “Site contamination is primarily PCBs in near-surface soil resulting from historic container management operations, and to some lesser degree from stormwater run-on from adjacent properties.”
a. Has the storm water “run-on from adjacent properties” been investigated, evaluated and addressed? Is there a continuing “run-on” of PCB containing stormwater?

   *DEQ conducted initial site assessments, including stormwater compliance data from the City of Portland, on the two adjacent properties that contribute stormwater run-on to*
the subject site: Auto Salvage 205 and Allied Waste. DEQ concluded that PCBs in run-on stormwater was either non-detectable or not significant.
b. Does this run-on source at the Site cause a run-off of contaminated stormwater that may re-contaminate the sediment in Johnson Lake?
   Per the response to 1a above, the run-on stormwater is not considered a source of PCBs. In addition, run-on stormwater is piped from the East Pond to the West Pond without flowing overland on the subject site.
c. Will any ongoing monitoring be done in the East and West Ponds of the Myers Container Site to evaluate this run-off?
   There is no planned monitoring of the East Pond. West Pond water will continue to be monitored as the subject site’s NPDES permit discharge sampling/compliance point.
d. The West Pond was reportedly redesigned to promote settling of suspended storm water sediment. How will this be maintained to assure that it is functioning properly?
   West Pond water will continue to be monitored as the subject site’s NPDES permit discharge sampling/compliance point, including analysis for TSS, which is the primary factor considered in evaluation of adequate settling of suspended stormwater solids. Ongoing stormwater discharges from the site will continue to be regulated through evolving iterations of 1200-COLS permit best management practices.

2. The NFA Proposal indicates that 16 tons of “legacy sediment” were removed from the I-205 culvert in the fall of 2012 after these sediments were detected entering Johnson Lake at the time when the Johnson Lake Sediment Cap was being completed. The uplands portion of the Site was investigated and remediation was performed a year later in fall 2013; this gap in time allowed at least a year of continued erosion of PCB soil from the Myers Container Site into the culvert and Johnson Lake. This flow of PCB-contaminated sediment was documented (in photographs provided to DEQ) as migrating into Johnson Lake before the culvert was cleaned.
a. Was the culvert re-cleaned after the Site upland remediation work was completed?
   A portable water treatment system operated at the subject site from March 2012 to November 2013, which included the entire time period of the culvert cleanout and upland site remediation work. Water in the West Pond was treated with the following components prior to discharge into the I205 culvert: primary setting in a large tank, chitosan filtration, and bag filters. Treatment effluent monitoring showed satisfactory TSS and PCB concentrations. Therefore, subsequent culvert re-cleaning was not necessary.
b. Was the culvert inspected after the uplands Site work, and if so, how was it done?
   Per the response to 2a above, such culvert inspection was not necessary.

3. The “Final Removal Action Completion Report” documents the surface soil sampling results, which showed that PCBs were detected in 50 of the 54 soil grids (each soil grid is 3600 square foot). Only 11 of the soil grids were excavated because those 11 grids had PCB concentrations above the Occupational Worker RBC of 0.56 mg/kg. Therefore, 39 grids were not excavated, and those remaining soils have detections of PCBs potentially up to 0.55 mg/kg. The Technical Memorandum on Marx Street Cleanup Level Analysis for On-site and Offsite exposures of PCBs states that after the cleanup, the average surface soil concentrations will be reduced to 0.123 mg/kg, with some areas considerably higher than the average.
a. The remedy for Johnson Lake required the achievement of a lake-wide average PCB
concentration in the surficial lake sediments of 0.031 mg/kg. The criteria for the lake sediments
is approximately 25% of the average concentration of PCBs that will remain in the surface soils
of the Myers Site after the limited soil excavation. Continuing erosion of the surface soils from
the Myers Site into Johnson Lake may increase the PCB concentration in the lake sediments to
above 0.031 mg/kg, causing a re-contamination of the lake sediment and the recently installed
sediment cap. The PCB contaminated soils that remain on the Myers Site present a continuing
source of PCB contamination to Johnson Lake.

A post-remedy soil loss and PCB loading evaluation was conducted (7/17/13 Technical
Memorandum, included as Appendix C in the Final Removal Action Work Plan, SLR,
August 2013), which estimated that with removal of the 11 grid cells and replacement
with clean gravel fill, the sediment concentration at the top of the biological active zone
of Johnson Lake (upper 1 cm) would be approximately 0.00039 mg/kg for Area 8 and
0.005 mg/kg for a more localized 1% of the lake surface in the immediate vicinity of the
outfall. Therefore, DEQ concluded that implementation of the cleanup plan would
prevent recontamination of Johnson Lake sediment.

b. What controls are/will be in place to stop the continuing erosion from the Myers Site of those
39 soil grids that have remaining PCB concentrations?

Per the response to 3a above, post-remedy PCB concentrations in surface soil at the
Former Myers Site is not expected to be a recontamination source for Johnson Lake
sediment. Improvements made to the Site’s East and West Ponds, along with stormwater
permit monitoring and BMPs (see response to 1d above), is expected to manage potential
erosion of remaining soil in stormwater.

**Recommendations**

No further action is recommended.

**Project Submittals**

*Preliminary Assessment and Expanded Preliminary Assessment Work Plan*, TRC, October


*I-205 Culvert Cleanout and Stormwater Treatment Report*, letter from Allan Bakalian,
January 18, 2013.


Final Removal Action Completion Report, SLR, April 1, 2014.

Attachments: 3 Figures
Surface Soil Excavated to Approximate depth of 3'.
Surface Soil Excavated to Approximate depth of 6'.
Surface Soil Excavated to Approximate depth of 14'.
Surface Soil Excavated to Approximate depth of 17'.

NOTE:
1. FINAL AS BUILT DETAILS FOR WEST POND ARE INCLUDED IN APPENDIX C.