

January 8, 2015

## Progress Report

### TASK 1

Identify status of Toxics Cleanup Program (TCP) sites with PCBs that could be contributing to groundwater. There are several clean up areas and former clean up areas that could still have residual PCBs that are loading to groundwater. This part of the analysis will develop a spreadsheet that will identify those sites with a summary of their characteristics such as:

- whether or not PCBs were identified,
- proximity to river,
- proximity to groundwater,
- status of clean up,
- clean up standards that were used,
- presence of wells,
- presence of PCBs in the groundwater (if known),
- data quality reported in EIM or in other documentation, and
- recommendations regarding future sampling.

This will involve interviewing TCP and our Urban Waters personnel plus reviewing documentation regarding the current status of the sites, and preparing a matrix.

### Approach

Ecology's Confirmed and Suspected Contaminated Sites List (CSCSL) within the Integrated Site Information System (ISIS) was queried in September 2014 for all reported contaminated sites within Spokane County. This query returned 343 sites; these were in turn filtered to show only sites for which PCBs were confirmed or suspected, in any environmental media. This query returned 12 Toxics Cleanup sites. The resulting spreadsheet was retained and modified by adding columns for each characteristic in the above bullet list, and is annotated.

In progress: cross-referencing this list with Access db list of PCB sites provided by LimnoTech.

Used EIM map measure tool to estimate proximity to river in miles for each site.

Searched EIM for studies or data results associated with each site. Noted maximum, non-flagged values reported in EIM. Annotations are on spreadsheet; these are preliminary.

Reviewed most recent TCP documents when available online (DSARS) for status information. Conferred with site managers as available.

PCB sites with data in EIM: F/S #630 GE Spokane, F/S #53481373 Kaiser Aluminum, FS #81836974 FUDS Fairchild, F/S #65178472 Spokane River Upriver Dam.

### Highlights of Site Characteristics – Sites with Confirmed or Suspected PCBs in any Media [this section not complete]

F/S 670 Alaska Steel & Supply: No documents available digitally.

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F/S 7617080 Barrier Trust Property: No documents available digitally. Adjacent to City Parcel site; awaiting restrictive covenant.

F/S 960924 BNSF Hillyard Lead Soil Site: No documents available digitally. VCP, cleanup completed.

F/S 650 City Parcel: Per May 2014 fact sheet, a Supplemental RI is planned and “ the work will move forward in early spring 2014[sic].” This is an error and should be 2015. “Activities involve collecting and analyzing several soil samples from test pits and Geoprobe™ borings outside of the City Parcel property perimeter to determine the presence and extent of possible residual PCB contamination remaining after the 2009 cleanup action. Comments from the public were accepted May 26 through June 24, 2014. No comments were received by Ecology.” Monitoring wells were decommissioned.

Ecology TCP Site Page: <https://fortress.wa.gov/ecy/gsp/Sitepage.aspx?csid=1023>

F/S 81836974 FUDS Fairchild Nike 87: Not proximal to the river; about 10 mi. SW of Seven Mile Rd. crossing. This site does not warrant further investigation.

F/S 630 General Electric Co: From third Periodic Review report, 2013: Cleanup action left PCBs in soil exceeding MTCA Method A levels protective of groundwater; therefore there are institutional controls in place (capping, fencing, restrictive covenants.) Compliance monitoring continues. Focus area is the groundwater plume that extends northwesterly from former dry well location near MW 20. Method 8082 was used to report Aroclor equivalents, modified to lower the MDL to 0.05 ug/L. Congener analysis (1668) was considered not needed because of the high CUL of 0.1 ug/L for groundwater. Interpretation of the correlation between seasonal water table elevation and PCBs level is: “...there is still residual PCBs in the smear zone that are transferred to the groundwater due to the rising water table.” This facility may warrant further investigation and/or congener analysis.

Ecology TCP Site Page <https://fortress.wa.gov/ecy/gsp/Sitepage.aspx?csid=1082>

F/S 53481373 Kaiser Aluminum & Chemical Corporation: Based on the 2012 RI addendum (2011 data collection), PCB soil concentrations in the West Discharge Ravine (WDR) are a potential source to groundwater; and groundwater flow gradients are sufficient to cause PCB transport. Although no conclusive link of the source to groundwater is made, the WDR is not ruled out as a source to groundwater. This effort used MTCA Method B risk based cleanup standards; therefore, accounting for MDL, cleanup level for PCBs is 64pg/L = 0.000064ug/L. There are over 120,000 data records in EIM. Method 8082 was used.

Ecology TCP Site Page <https://fortress.wa.gov/ecy/gsp/Sitepage.aspx?csid=7093>

F/S 21329 Nine Mile Falls Campground:

F/S 674 Spokane Fire Dept Training Fac: VCP was initiated in 1990, then was terminated by Ecology in 2006 when client withdrew request for written opinion. (Awaiting response from TCP site manager on status.)

F/S 17718 Spokane River:

F/S 65178472 Spokane River Upriver Dam and Donkey Island: Although there is an EIM Study name, no data could be found in EIM. The most recent (2011) Cap Monitoring Results conclude that the cap is intact and no PCBs were detected in surface materials.

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F/S 654 US DOE BPA Bell Maintenance HQ:

### **Findings To-Date**

Only a portion of the 12 facilities have been researched to date; this work should continue to provide summary information and recommendations for each facility on the spreadsheet, regarding whether or not further consideration is warranted.

GE and Kaiser Aluminum facilities coincide with the river reach with higher PCB concentrations detected during August 2014 synoptic survey, according to preliminary data summary by LimnoTech. These facilities should be reviewed for possible data mining or data collection towards determining past or present loading.

Anecdotal information on other diffuse PCB sources: Hydro seeding material which contains recycled paper might have measurable PCBs. Hydro seeding is a widespread practice, including for site restoration at TCP cleanup sites. Inland Empire Paper facility– not a TCP site but known for recycled paper as a source of PCBs in outfall discharge (need citation for this.)

### **Preliminary Recommendations**

Perform data quality review for existing relevant soil and groundwater data in EIM.

Upload to EIM, quality assured data for the GE facility.

Focus on active TCP sites with history of PCB usage, contamination. Easier to require monitoring or gain access for monitoring, easier to estimate current or recent past loading.

For sites that indicated ND for PCBs, review associated MDL. Also, determine whether turbidity or TSS was accounted for and whether filtering samples was done.

Improve QA on existing data sets by reviewing and appropriately flagging EIM data.

Map locations and quality-assured results in GIS environment.

Take advantage of existing transport model (USGS?) to run groundwater loading scenarios.

### **Information Sources**

SRRTTF web page; LimnoTech documents

Coots rpt- congener analysis

Serdar rpt –source assessment

Golding rpt - PCB analysis methods

Huckleberry Palmer, site manager City Parcel, pers communication.

Ariane Fernandez, former haz waste inspector and researcher ERO, pers comm.

Spokane Valley-Rathdrum Prairie Aquifer Atlas, 2009 update.

TCP site summary web pages; facility documents posted on DSARS; ISIS, EIM databases.