

Budget Request for Historical PCB Source Review

June 15, 2022 Draft

Background

The mission of the Task Force is to identify and remove sources of PCBs to the Spokane River. While the Task Force has been successful in identifying and beginning to remediate many PCB sources, yet-identified sources are believed to exist. The known sources have been quantified via their delivery from point source discharges, while unknown sources are likely delivered in a diffuse manner via contaminated groundwater and/or overland surface runoff.

PCB fingerprinting analyses (Rodenburg, 2022) have demonstrated that the large majority of PCBs present in the Spokane River system originated from legacy PCB production. As such, it is reasonable to conclude that the unidentified sources of PCBs also come from legacy production. Because of the difficulty in accurately measuring diffuse delivery mechanisms, un-identified sources may be identified by examining historical information related to activities in the watershed that have been responsible for releasing PCBs into the environment. There is a range of historical information available that can identify areas potentially contributing legacy PCB sources to the Spokane River. A preliminary review of select historical documents from Ecology has identified two source areas of interest.

Purpose

The purpose of this authorization is to support a more detailed review of historical information relevant to identifying potential legacy sources of PCBs to the Spokane River, with a focus on Spokane Industrial Park and areas contributing to the Mission Reach. The outcome of this effort will be a prioritized list of historical sites (previously not considered by the Task Force) that may be responsible for delivering PCBs to the Spokane River and recommendations for confirming their present-day contribution.

Scope and Budget

The scope of work consists of three components: 1) Review and assessment of Sanborn fire insurance maps, 2) Review of site reports and groundwater monitoring data from Ecology TCP cleanup sites, and 3) Prioritization of identified sites as to their potential for contributing PCBs to the Spokane River.

The first component consists of review of up to 124 Sanborn fire insurance maps of the Spokane area for the years 1950, 1960, 1970, and 1980. The spatial domain of the maps reviewed will cover a ¼ mile buffer north of the Mission Reach and a ½ mile buffer south of the Mission Reach. Public domain maps will be obtained from Fire Insurance Maps On-line for the years 1950 and 1960 and purchased from Lightbox/EDR for the years 1970 and 1980. This review will identify the locations of industrial facilities and other features that were potential sources of PCB discharges. The locations, the industrial types, and the approximate tenure of the facilities will be recorded in a geographic information system (GIS). The potential nexus of these facilities with the Spokane River will be examined in the GIS using spatial data for watersheds, stream networks, sewer systems, and topography.

The second component consists of review of historical reports and associated monitoring data. Historical reports will include those from Ecology TCP cleanup sites plus any additional studies identified as relevant by Task Force members. The material to be considered will include reports identified via:

review of Ecology's "What's in My Neighborhood: Toxics Cleanup" web site (<https://apps.ecology.wa.gov/neighborhood/>), review of the Ecology memorandum "Assessment of PCBs in Spokane Valley Groundwater" (Marti and Maggi, 2015), and any additional studies identified as relevant by Task Force members. Relevant reports for all sites with significant potential for PCB contamination will be obtained and reviewed, as will all follow-up monitoring data.

The final step will consist of prioritization of identified sites as to their potential for contributing PCBs to the Spokane River. Sites will be prioritized using an approach similar to that of Marti and Maggi, based upon whether PCB use at the site was confirmed/suspected, remediation status, etc. Prioritization will also compare PCB fingerprints of each source to fingerprints in in Spokane River water, biofilm, fish tissue and sediments. The results of this prioritization will be documented in a technical memorandum which will also provide recommendations regarding steps that can be taken to confirming the present-day contribution of high priority sites.

Deliverables and Schedule

The expected deliverables and schedule for delivery are provided in Table 1.

Table 1. Deliverables and Schedule

Deliverable	Completion Date
Technical memorandum documenting Sanborn review	August 26, 2022
Technical memorandum documenting historical report review	August 26, 2022
Technical memorandum prioritizing site and recommending next steps	September 30, 2022

Budget

The total cost for conducting this work is \$35,100. Itemized costs are provided in Table 2.

Table 2. Itemized Budget

Item	Budget
Develop scope of work	\$4000
Sanborn map review	\$14,100
Review of identified reports	\$5000
Review of relevant groundwater monitoring data	\$5000
Assessment/prioritization of identified sites	\$4000
Reporting	\$3000
Total	\$35,100