

Budget Request for PCB Monitoring of Stormwater Catch Basins

April 14, 2022 Draft

Background

Monitoring in the Mission Reach of the Spokane River has consistently shown elevated levels of PCBs in both biofilm and fish. An initial investigation into the cause(s) of these elevated PCB concentrations did not identify a specific source of contamination but did identify potential source categories responsible for these concentrations (e.g., contaminated soils, groundwater). The Task Force sponsored deployment of a trained PCB detection dog in 2021 to identify potential areas of PCB contamination in riparian areas of the Mission Reach. While there were no definitive sources of PCBs detected along the banks of the river, several buildings, stormwater catch basin sites, and drywell sites in the stormwater drainage area were detected as potentially having elevated PCB concentration (Figure 1).

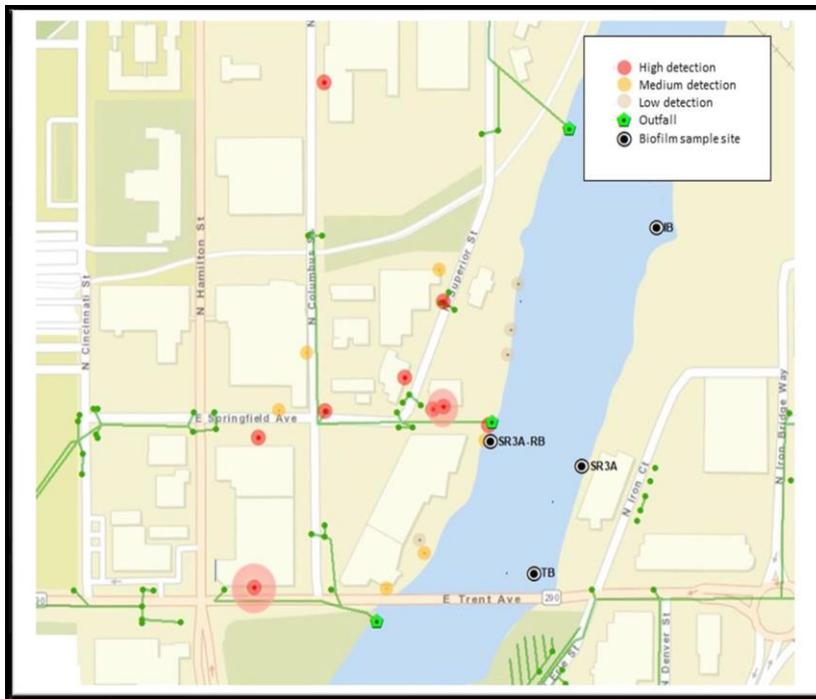


Figure 1. Results of PCB-Detection Dog Deployment

Purpose

The results from deployment of the PCB-detection dog do not provide definitive evidence of PCB sources contributing to the Mission Reach contamination. They do provide an indication that potential for contamination exists in certain areas. Monitoring of PCBs in stormwater from these areas would provide the most definitive determination of whether they are contributing to Mission Reach contamination, but stormwater monitoring poses numerous logistical challenges. The purpose of this authorization is to take the next step towards assessing the significance of the areas identified by the PCB-detection dog, by sampling PCB in solids collected from stormwater catch basins in the area. The PCB concentrations measured the catch basins of interest will be compared to historical PCB concentrations measured in other Spokane-area catch basins to determine whether the identified areas

are delivering PCBs to the Spokane River at levels higher than those being delivered by other areas in Spokane. If catch basin PCB concentrations are significantly higher than in other areas of the city, this will trigger a follow-up study to monitor stormwater PCB concentrations.

Scope

The scope of work consists of collection and analysis of PCB concentrations in three to five catch basins located in the areas identified by the PCB detection dog. Specific locations will be selected in consultation with the City of Spokane with some candidate locations shown in Figure 2.

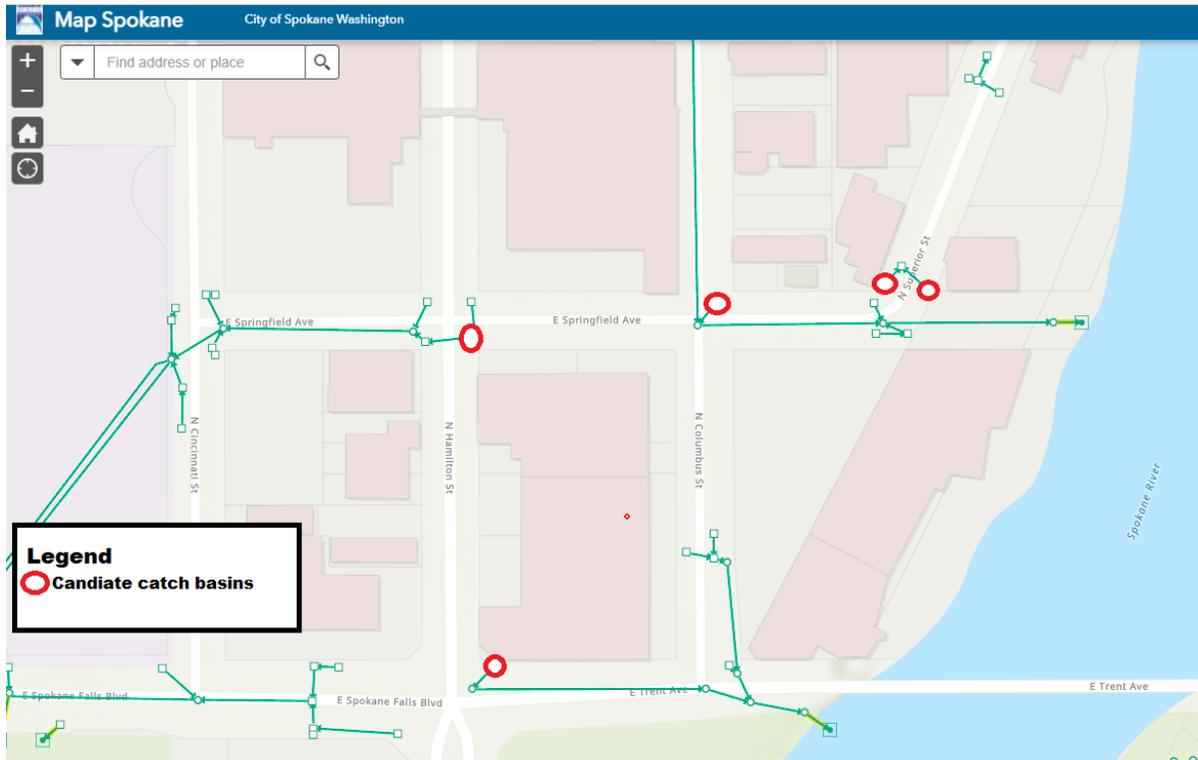


Figure 2. Candidate Catch Basins for Monitoring

Sampling will be conducted in late summer of 2022. Sampling will be performed by Gravity Consultants under the oversight of staff from the City of Spokane. Gravity will collect sediment samples in accordance with the operating procedures developed collaboratively by the City of Spokane and Ecology's Urban Waters Initiative as described in City of Spokane (2014). Four sediment samples will be collected from random locations in each catch basin and mixed thoroughly using a stainless steel spoon and bowl. Samples will be transferred to a laboratory-provided jar and placed in ice and shipped for overnight delivery to SGS AXYS. SGS AXYS will analyze the samples using EPA Method 1668C. Laboratory results will be validated in accordance with the project QAPP.

Observed PCB concentrations in each catch basin will be compared to historical catch basin PCB concentrations observed in Spokane and a determination made whether the recent samples are significantly greater than those measured in other catch basins. All findings will be documented in a

technical memorandum. Individual congener results will be uploaded to Ecology's Environmental Information Management (EIM) database.

Deliverables and Schedule

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

Table 1. Deliverables and Schedule

Deliverable	Completion Date
Draft QAPP	May 18, 2022
Final QAPP	July 22, 2022
Samples collected	August 31, 2022
Laboratory Results	October 31, 2022
Draft technical memorandum	December 16, 2022
Final technical memorandum	January 21, 2023
Data loaded to Ecology's EIM	February 28, 2023

Budget

The cost for conducting this work is \$23,850, as detailed in Table 2. Actual costs should be lower, to the extent that:

- QAPP development costs are shared with other SRRTTF projects requiring a QAPP under a similar timeline.
- Field mobilization and labor costs are shared with other SRRTTF projects requiring deployment of field staff.
- Data validation costs are shared with other SRRTTF projects collecting PCB data

Table 2. Estimated Costs

Item	Budget
Scope of Work	\$4000
Draft QAPP	\$2000
Final QAPP	\$2000
Field labor	\$1850
Mobilization & demobilization	\$2500
Laboratory analyses	\$6000
Data validation	\$1500
Reporting	\$2000
Data uploading	\$2000
Total	\$23, 850

References

City of Spokane, 2014. Adaptive Management Plan for Reducing PCBs in Stormwater Discharges
Reporting Period: May, 2013 to May, 2014. Wastewater Management Department. June, 2014.