

Budget Request for PCB Monitoring of Artesian Well Discharge

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 but did identify potential source categories responsible for these concentrations. Ecology staff had identified a continuously flowing water source (informally called an Artesian Well) located on the south bank of the Spokane River between Hamilton St and Spokane Falls Blvd., with approximate GIS coordinates of 47.6600537N, -117.39963216W. Gravity Consultants was contracted in 2021 to sample this discharge and SGS AXYS laboratory contracted to analyze this sample for PCB concentration. The resulting concentration was found to be 2100 pg/l.

Purpose

The PCB concentration of 2100 pg/l is an order of magnitude greater than typical PCB concentrations in the river, indicating that this discharge may be a previously unconsidered source of PCBs to the river. Because only a single sample was taken in 2021, there is some uncertainty of how representative this sample is of long-term conditions. The purpose of this authorization is to collect additional samples from this discharge in order to confirm the elevated concentration observed in 2021.

Scope

The scope of work is identical to that conducted in the 2021 Mission Reach source detection survey. Gravity will collect grab samples in accordance with the Standard Operating Procedures listed in LimnoTech (2014). One sample and a field replicate will be collected from the discharge, for a total of two samples. Samples will be placed on 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 (both total and individual homologs) 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 \$15,600, 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

Item	Budget
Draft QAPP	\$2000
Final QAPP	\$2000
Field labor	\$1850
Mobilization & demobilization	\$2500
Laboratory analyses	\$2000
Data validation	\$1500
Reporting	\$2000
Data uploading	\$1800
Total	\$15,650

References

LimnoTech, 2014. Sampling & Analysis Plan, Spokane River Toxics Reduction Strategy Study. Prepared for Spokane River Regional Toxics Task Force. July 31, 2014.