

Conceptual Scope of Work
Groundwater/Surface Water Interface Sampling in Mission Reach
March 15, 2023, Draft

Background

The mission of the Task Force is to identify and remove sources of PCBs to the Spokane River. Sampling of PCBs in Spokane River biofilm by Ecology (Era-Miller and Wong, 2022) identified several areas of elevated PCBs in the Mission Reach. Furthermore, a review of historical land use and other data sources identified numerous upland areas in the vicinity of Mission Reach with the potential for previous release of PCBs (LimnoTech, 2022). The available information is insufficient to define whether groundwater delivery of historic PCB sources is contributing to elevated PCB concentrations of the Mission Reach.

The Task Force is unable to conduct future monitoring activities due to its plan to sunset in June of 2023. The Task Force's Technical Track Work Group, in conjunction with Ecology, has determined it worthwhile to scope out activities that could be conducted by the entity that eventually replaces the Task Force. This document provides a "conceptual" scope of work describing in broad terms groundwater sampling in the Mission Reach. Should the Task Force approve, this document would be converted in the future into a more formal scope of work.

Purpose

The purpose of this project is to conduct monitoring PCBs in the groundwater/surface water interface (GSI) near locations of observed biofilm contamination in the Mission Reach of the Spokane River. The outcome of this effort will be an improved understanding of the delivery of PCBs via groundwater from upland areas of the Mission Reach to the Spokane River.

Scope of Work

The scope of work consists of two components: 1) Monitoring of PCBs at the groundwater/surface water interface of the Spokane River, and 2) Data assessment.

Task 1: Monitoring of PCBs at the Groundwater/Surface Water Interface of the Spokane River

Previous work conducted by the Task Force demonstrated the feasibility of collecting water from the groundwater/surface water interface using temporary push-point piezometers (i.e., Henry samplers). This task consists of sampling PCBs at up to 56 GSI locations associated with observed biofilm contamination in the Mission Reach, corresponding to eight GSI samples associated with seven areas of contamination (Figure 1). Samples would be collected during a single low-flow condition and analyzed using Method 1668.

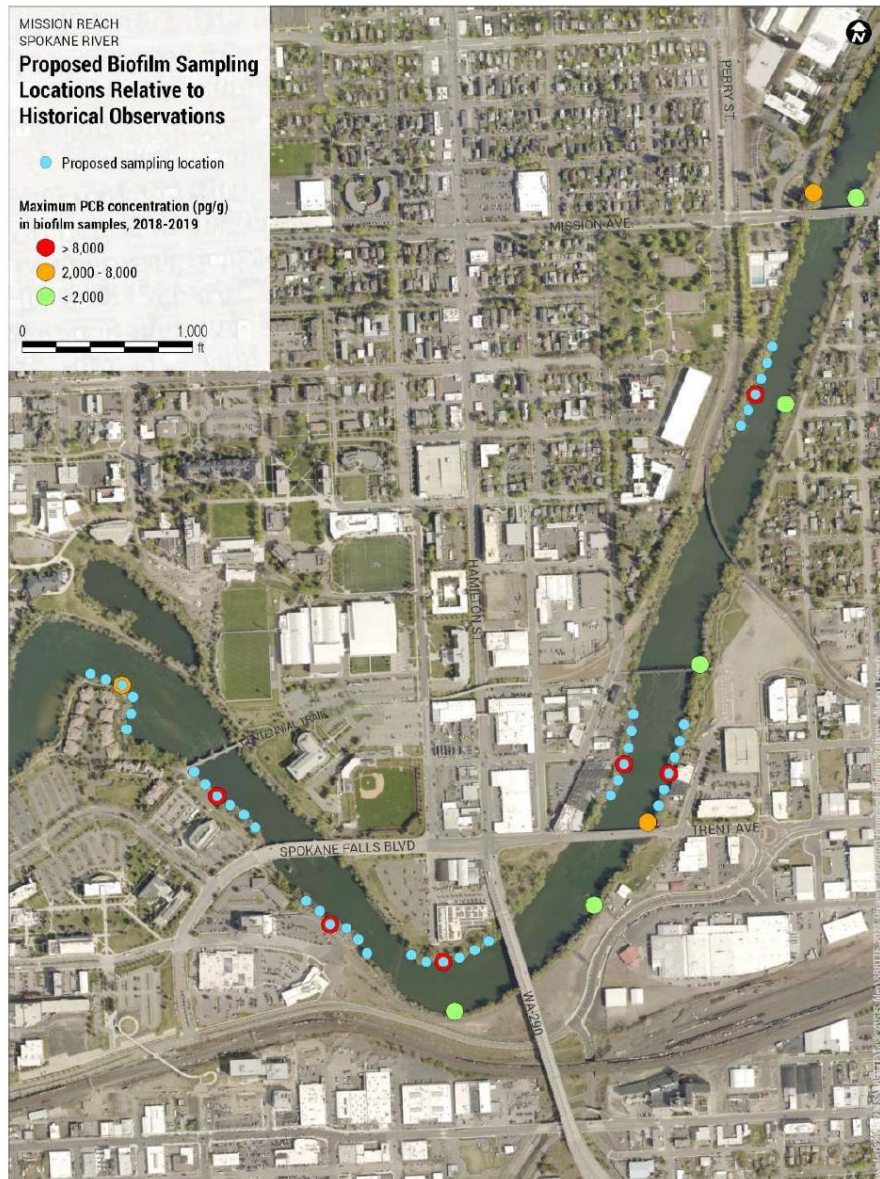


Figure 1. Proposed Mission Reach GSI Sampling Locations Relative to Peak Biofilm PCB Concentrations

Task 2: Data Interpretation and Reporting

The data collected in Task 1 will be validated and blank-corrected in accordance with the project QAPP. The validated data will then be assessed to address the following questions:

- How do PCB concentrations at the GSI stations compare to Spokane River concentrations and water quality standards?
- Which of the previously identified sites with the potential for historical PCB release are located in the vicinity of elevated PCB concentrations at the GSI stations?

All project findings will be documented in a technical report and all PCB data collected 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	Four weeks after project initiation
Final QAPP	Twelve weeks after project initiation
Sample collection	July 31, 2024
Laboratory results	October 31, 2024
Data validation	November 30, 2024
Draft technical report	December 31, 2024
Final technical report	January 31, 2025
Data loaded to EIM	January 31, 2025

Budget

A rough estimate of total cost for conducting this work is \$150,000. These estimates are based upon cost estimates assuming the use of contractors (field and laboratory) that have worked for the Task Force in the past. Itemized costs are provided in Table 2.

Table 2. Itemized Budget

Item	Budget
Draft and final QAPP	\$10,000
Task 1: Monitoring of PCBs at the groundwater/surface water interface of the Spokane River	\$120,000
Task 2: Data assessment and reporting	\$20,000
Total	\$150,000

References

LimnoTech, 2022. Spokane River Historical PCB Source Review. Prepared for the Spokane River Regional Toxics Task Force. November 30, 2022.

Era-Miller, B. and S. Wong, 2022. Spokane River PCBs in Biofilm, Sediment, and Invertebrates, 2018 and 2019 Screening Study Results. Environmental Assessment Program. Washington State Department of Ecology. Publication 22-03-002.

<https://apps.ecology.wa.gov/publications/documents/2203002.pdf>