

Budget Request for Mirabeau Park SPMD Monitoring

April 14, 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. Recent PCB measurements in the water column and biofilm at Mirabeau Park suggest the presence of a groundwater PCB source, but do not provide a reliable estimate of the magnitude of the load. Water column concentrations at Mirabeau are generally similar to those observed at upstream stations (<25 pg/l), with occasional observations above 200 ug/l. Biofilm PCB concentrations show a noticeable shift in homolog distribution at Mirabeau (indicating the presence of a PCB source) but do not provide an estimate of the magnitude of the load. Deployment of semipermeable membrane devices will help better assess the significance of groundwater PCB loading entering the river upstream of Mirabeau Park, by measuring water column concentrations integrated over a 28-day period.

Purpose

The purpose of this authorization is to support deployment of semipermeable membrane devices to monitor water column PCB concentrations in the vicinity of Mirabeau Park and interpretation of SPMD results to estimate the significance of an unknown PCB source entering the Spokane River near Mirabeau Park.

Scope and Budget

The scope of work consists of collection and analysis of PCB concentrations via SPMD at two Mirabeau Park locations. SPMDs will be deployed and maintained for approximately 28 days by Gravity Consultants in late summer of 2022. SPMDs will be deployed and analyzed in a manner consistent with the Task Force's 2020-2021 SPMD monitoring. Total and dissolved organic carbon and total suspended solids concentrations will be measured via grab sample during SPMD deployment, at the mid-point of the deployment, and when the SPMDs are retrieved. SPMDs will be obtained from Environmental Sampling Technologies Inc (EST), PCB analyses will be conducted using Method 1668C by SGS AXYS, and conventional pollutants will be analyzed by SVL Laboratories.

Observed PCB concentrations at each Mirabeau Park SPMD will be compared to PCB concentrations observed at the State Line SPMD monitoring and a determination made whether Mirabeau Park concentrations are significantly greater than those measured at the State Line. Homolog distributions will be examined in order to assess the nature of the PCB source(s). All findings will be documented in a technical report.

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 collection	September 30, 2022
Laboratory results	November 30 2022
Draft technical report	January 16, 2023
Final technical report	February 28, 2023
Data loaded to Ecology's EIM	March 31, 2023

Budget

The total cost for conducting this work depends upon whether it is conducted in conjunction with the SPMD monitoring for long term trend assessment. Itemized costs are provided in Table 2 for each option.

Table 2. Itemized Budget

Item	Budget	
	Stand Alone	In Conjunction with Trend Assessment
Scope of Work	\$4000	\$4000
Draft QAPP	\$2500	\$1000
Final QAPP	\$2500	\$1000
Field planning and coordination	\$5000	\$2000
Field labor	\$55,000	\$15,000
Laboratory analyses	\$26,000	\$22,000
Data validation	\$4000	\$3000
SPMD Data Processing	\$5000	\$4000
Reporting	\$5000	\$3000
Total	\$109,000	\$55,000