

Budget Request for Expanded Synoptic Sampling
April 14, 2022 Draft

Background

The Task Force has sponsored three separate synoptic surveys of PCBs in the Spokane River, designed to support mass balance assessments and identify previously unknown sources of PCBs. These surveys have been largely effective, but several questions regarding unknown sources still exist. The Task Force has already approved a synoptic survey of the river between the USGS gage and Nine Mile Dam to address one key question regarding the magnitude of unknown loading in that segment of the river. The spatial coverage of the existing scope could be expanded to address additional questions.

Purpose

The purpose of this authorization is to expand the currently authorized 2022 synoptic survey scope to address the following issues:

- Provide better spatial resolution regarding where unknown loads may be entering the river between the USGS gage and Nine Mile Dam: The current scope considers the entire portion of river between the USGS gage and Nine Mile Dam as a single segment, such that any information gained on unknown load would be very uncertain in terms of where the load was entering the river. Addition of a sampling station (and flow measurement) at the midway portion of this reach would provide better definition of the location of the unknown load.
- Define the magnitude of unknown loading occurring in the Mission Reach: Prior synoptic sampling events lacked the spatial resolution necessary to fully assess the presence of unknown loads occurring within Mission Reach (see Figure 1). Addition of a sampling station (and flow measurement) near the end of Mission Reach would provide better definition of the presence of unknown loads.
- Help provide an explanation for the observed shift in in-river homolog patterns between Trent Ave/Plantes Ferry and Greene St.: Prior synoptic surveys have shown a shift in homolog distribution occurring in the reach between Trent Ave/Plantes Ferry and Greene St. Results from the 2018 synoptic survey indicate that this shift is occurring between Trent Ave/Plantes Ferry and Upriver Dam. Addition of a sampling station (and flow measurement) between Trent Ave/Plantes Ferry and Upriver Dam would provide better definition of where the shift is occurring and why.

Scope

The scope of work is similar to the 2015 and 2018 mass balance assessments, with the primary difference being the specific stations being sampled. Gravity Consultants will collect grab samples and stream flows for five consecutive days during summer low flow conditions at the nine river stations shown in Figure 1.

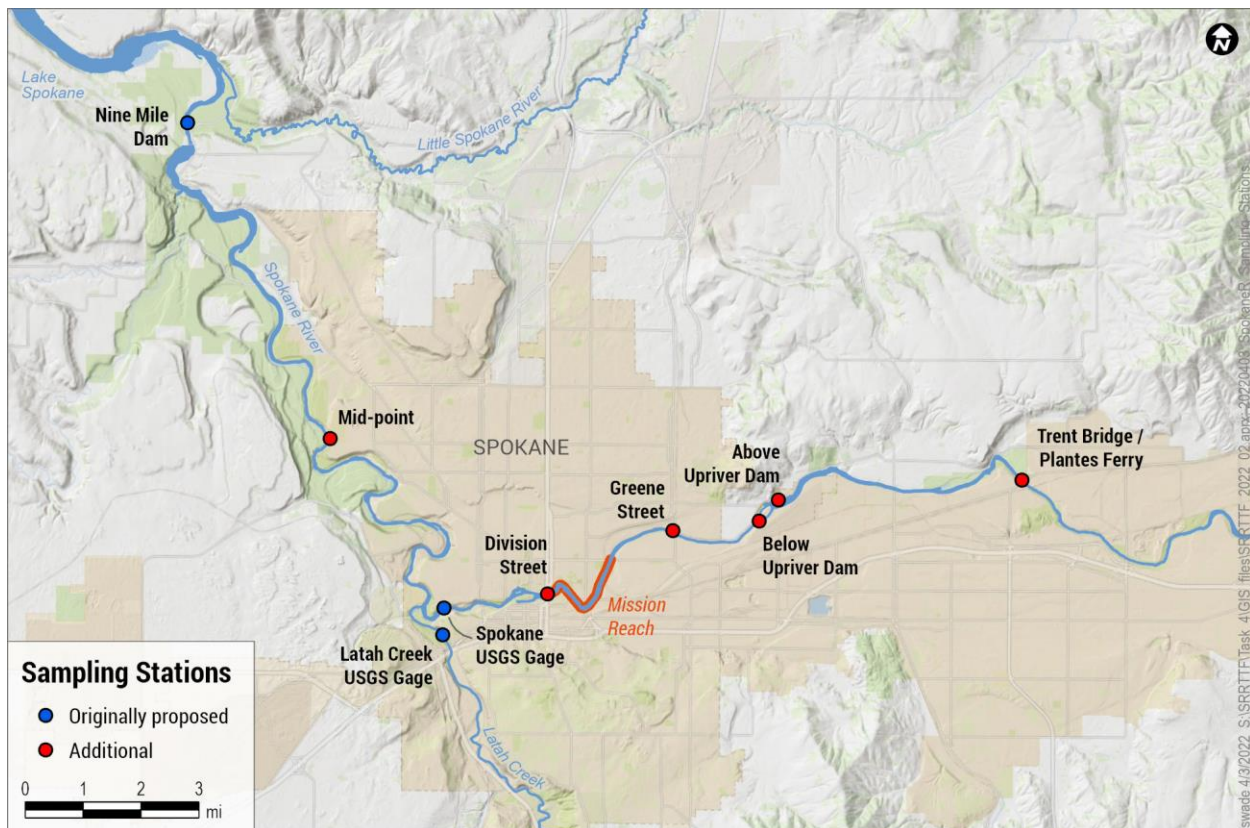


Figure 1. Proposed River Sampling Locations

Wastewater treatment samples will be collected from Inland Empire Paper, the Spokane County Water Reclamation Facility, and the City of Spokane's Riverside Park Water Reclamation Facility on the first, third, and fifth days of sampling. Samples will be shipped overnight to SGS AXYS and SVL laboratories for analysis of PCBs and conventional parameters, respectively. Laboratory results will be validated in accordance with the project QAPP.

Mass balance assessments will be performed on each river segment for total and individual homologs. The observed PCB concentrations (both total and individual homologs) and mass balance assessments will be documented in a technical report. 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 collection	August 31, 2022
Laboratory results	October 31, 2022
Draft technical report	December 16, 2022
Final technical report	January 21, 2023
Data loaded to Ecology's EIM	February 28, 2023

Budget

The total cost for conducting this work is \$160,000. Given that \$80,000 has already been authorized by the Task Force for conducting an assessment for the USGS gage to Nine Mile segment, the net budget request for increasing the scope is \$80,000. Itemized costs are provided in Table 2.

Table 2. Itemized Budget

Item	Budget
Scopes of Work	\$4000
Draft QAPP	\$3000
Final QAPP	\$3000
Field planning and coordination	\$8000
Field labor	\$45,000
Laboratory analyses	\$65,000
Data validation	\$8000
Mass balance assessment	\$12,000
Reporting	\$8000
Data uploading	\$6000
Total	\$160,000
Existing Authorization	\$80,000
Net Budget Request	\$80,000