

TECHNICAL CONSULTANT SUPPORT TO SPOKANE RIVER REGIONAL TOXICS TASK FORCE
MONTHLY WATER QUALITY SAMPLING

SCOPE OF WORK

February 20, 2016

This document describes the activities to be conducted by LimnoTech and Gravity Consulting in support of monthly water quality sampling on the Spokane River for the Spokane River Regional Toxics Task Force (SRRTTF). The work plan is divided into sections corresponding to: 1) Technical Scope and Deliverables, 2) Budget, and 3) Schedule.

TECHNICAL SCOPE AND DELIVERABLES

Work will be conducted through four tasks:

1. Revise Quality Assurance Project Plan (QAPP)
2. Conduct Monthly Water Quality Sampling on the Spokane River
3. Monitoring Coordination
4. Data validation
5. Report

Each task is described below.

Task 1: Revise QAPP

The original QAPP for SRRTTF field monitoring was prepared in 2014 to address field studies conducted that year. The QAPP was revised in 2015 to cover additional sampling conducted in August 2015. A second revision will be prepared to address the monthly water quality sampling to be conducted in 2016. This revision will define the specific objectives of the 2016 monitoring program, and describe the quality of data needed to satisfy these objectives. The revised QAPP will also contain a Sampling and Analysis Plan detailing how these data will be collected.

Deliverables:

- Revised QAPP

Task 2: Conduct Monthly Water Quality Sampling on the Spokane River

The objective of the monthly water quality sampling is to determine the seasonal variability in PCB concentrations in the Spokane River. The field monitoring program will consist of six monthly sampling events as described in the revised QAPP. Samples will be collected according to the requirements of the Sampling and Analysis Plan as well as the revised QAPP. Sampling will be conducted at the following locations:

1. Lake Coeur d'Alene Outlet
2. Spokane River Below Trent Bridge
3. Spokane River Below Greene Street
4. Spokane River USGS Gage at Spokane, WA
5. Latah Creek Mouth
6. Spokane River Below Nine Mile Dam

Samples will be analyzed for PCBs, as well as for the same suite of conventional parameters that have been monitored in prior SRRTTF studies. All samples will be stored properly and delivered/shipped to the respective laboratories for analysis under the required chain of custody. Stream flow information at the time of sampling will be collected for all of the stations that are actively gaging flows.

Regular progress reports will be prepared and submitted over the course of the field monitoring.

Deliverables:

- Progress reports

Task 3: Monitoring Coordination

This task will cover all required coordination with SRRTTF, Gravity and AXYS/SVL for the 2016 field work. In addition, LimnoTech/Gravity will provide advance information on specific sampling dates to the City of Spokane, to provide them the opportunity to conduct concurrent stormwater and/or CSO sampling should appropriate wet weather conditions during the time of routine sampling. LimnoTech will also coordinate with Avista regarding operation of Post Falls and Nine Mile dams prior to each sampling event.

During the first three months of monitoring, LimnoTech will review current information on snow pack, river flows, and weather forecasts, and make a determination of whether sampling in June of 2016 will be worthwhile in terms of capturing the effects of snowmelt. If June 2016 sampling is conducted, two monthly monitoring events will be conducted in the fall of 2016. If June 2016 sampling is not conducted, three additional monthly monitoring events will be conducted in the fall of 2016.

In addition, LimnoTech will conduct a mid-project assessment after Spring 2016 laboratory results become available, to determine if the data collected during that time are providing valuable information. The results of this assessment will be provided to the Task Force prior to conducting Fall sampling, with the option to either: 1) Continue fall sampling as planned, 2) Make modifications to the sampling plan, or 3) Terminate all remaining sampling.

Task 4: Data Validation

LimnoTech will obtain all laboratory results, perform data validation of the results in accordance with the revised QAPP, and enter the data into a database in a format suitable to SRRTTF and Ecology when developed. The sampling results will also be evaluated to determine seasonal variation in PCB concentration (and load, for stations where stream flow information is available).

Deliverables:

- Data Validation Memo
- Project Database

Task 5: Report

All sampling activities and results will be documented in a report which will include a description of sampling methods, problems encountered, analytical results of PCBs by congener, analytical results for conventional parameters, data validation methods and results, and data interpretation.

Deliverables:

- Report

BUDGET

The total budget for this work is currently estimated as \$206,500, divided by task as follows:

1. Revise QAPP:	\$2,000
2. Conduct Monthly Water Quality Sampling (6 events):	\$182,400
a. Field Sampling:	\$113,400
b. Laboratory Analysis:	\$69,000
3. Monitoring Coordination:	\$10,600
4. Data Validation:	\$6,000
5. Report:	\$5,500

This budget assumes that one Department of Ecology staff will be available to accompany Gravity for each monitoring event. It is recognized that Task 2 will be conducted by parties other than LimnoTech, and that the Task Force may choose to contract directly with Gravity Consulting and AXYS/SVL for their respective sub-tasks.

SCHEDULE

Assuming that Notice to Proceed is given by January 31, work will be conducted under the schedule listed below. The specific dates for Sampling Events #4-#6 will be determined based upon the results of Task 3.

Task: Deliverable	Completion Date
1: Revise QAPP	February 15, 2016
2: Conduct Monthly Water Quality Sampling	
<i>Sampling Event #1.</i>	March 15, 2016
<i>Sampling Event #2</i>	April 15, 2016
<i>Sampling Event #3</i>	May 15, 2016
<i>Sampling Event #4</i>	To Be Determined
<i>Sampling Events #5 and #6</i>	Fall, 2016
3: Monitoring Coordination	May 30, 2016
4: Data Validation	January 30, 2017
5: Report	February 15, 2017