

SRRTTF Priority Work Plan

for

Spokane River Watershed

2013-2015 (Biennium Budget Period)

Introduction and Purpose

The Spokane River Regional Toxics Task Force (SRRTTF) identified tasks in the following work plan as their highest priorities to address elevated levels of PCBs in the Spokane River over the next two year biennium budget period. The intent of these high priority activities is to identify implementation actions that will result in tangible reductions in PCBs in the Spokane River Watershed. The SRRTTF Funding Strategies document was used to identify projects considered in the prioritization process. Identification of the high priority scope of work items has been developed for allocation of the \$350,000 in appropriated funding from the State Toxics Control account. The appropriation is defined by the following budget language approved by the 2013 Legislature:

“State appropriation is provided solely for the Spokane river regional toxics task force to support their efforts to address elevated levels of polychlorinated biphenyls in the Spokane river. Funding will be used to determine the extent of the cleanup required, implement cleanup actions to meet applicable water quality standards, and prevent recontamination.”

This work plan provides detail on three high priority tasks that will result in the most effective and efficient use of these funds as defined above:

- I. Identification of Data Gaps (LimnoTech Scope of Work)
- II. Source Identification and Control
- III. Toxics Substances Control Act (TSCA) Regulatory Reform

It is assumed that the individual tasks in the following work plan will be accomplished through a combination of State Toxics Control account funding, other grants, and in-kind services by members of the SRRTTF.

SRRTTF Priority Work Plan Elements

I. Identification of Data Gaps (LimnoTech Scope of Work)

The Spokane River has been the subject of toxics investigations for more than 20 years. The most recent assessment of the river concluded that over half of the PCB inputs to the Spokane River are unaccounted for and the movement of PCBs through the Spokane River Watershed is not well-understood. The SRRTTF desires to collect the necessary data needed to characterize the inputs of PCBs to the Spokane River in order to develop appropriate clean-up actions. This involves the collection of data in the Spokane Watershed in accordance with SRRTTF's data collection strategy, and approved Quality Assurance Project Plan(s). The Technical Consultant for the SRRTTF is currently completing Phase I deliverables of a multi-phase scope of work. The intent of the full scope of work is to assess current data and the quality of those data, develop a conceptual model, identify data gaps, and coordinate data collection to fill those gaps for the purpose of identifying appropriate implementation opportunities to reduce and remove PCBs from the Spokane River Watershed. The Tasks below are those tasks in Phase IB, Phase II and Phase III that are expected to occur within the next two year biennium budget period, and are currently unfunded or partially funded.

Phase I – Collect Existing Watershed Data

The majority of Phase I activities have been funded with the exception of the development of a Quality Assurance Project Plan (QAPP) and a Sampling and Analysis Plan (SAP) for future work (Task 9)¹, and development of a detailed scope, budget and schedule for future work (Task 10). Budget requests for these tasks are shown in Table 1. A detailed description of the tasks, including deliverables, is included in Attachment 1.

Phase II – Implementation of Sampling and Analysis Plan²

A Preliminary Scope of Work has been developed for Phases II - IV for budgeting purposes. The following Phase II Tasks are projected to take place between June 2014 and June 2015, and are relevant to the subject two-year biennium budget period.

The Phase II planning level budget is currently estimated between \$400,000 and \$1,230,000. Individual Tasks are as follows:

- Task 1 – Preparation for Field Activities
- Task 2 – Field Monitoring
- Task 3 – Laboratory Analysis
- Task 4 – Data Processing
- Task 5 – Meetings and Coordination

A description of the Phase II tasks is included in Attachment 1. Planning level budget estimates for these tasks are shown in Table 1.

¹ Funding Strategy Document Reference: A5. Collect Existing Watershed Data Phase 1; Task 9

² Funding Strategy Document Reference: A6. Collect Watershed Data Phase 2

Phase III – Detailed Inventory of Sources and Sinks³

A Preliminary Scope of Work has been developed for Phases II - IV for budgeting purposes. The following Phase III Tasks are projected to occur between September 2015 and February 2016, and are relevant to the subject two-year biennium budget period.

The Phase III planning level budget is currently estimated between \$160,000 to \$360,000. Individual tasks are as follows:

- Task 1 - Analysis of Field Data
- Task 2 – Application of Model
- Task 3 – Development of Inventory
- Task 4 – Meetings and Coordination

A description of the Phase III tasks is included in Attachment 1. Planning level budget estimates for these Phase III tasks are shown in Table 1.

**Table 1
Projected Unfunded LimnoTech Tasks, Budget and Schedule Through June 2014**

Phase	Task	Description	Budget (a)	Projected Schedule
I	9	QAPP/SAP	\$9,416 (remaining)	January 2014
I	10	Scoping for Later Phases	\$ 3,232	February 2014
I	11	Meetings and Coordination	\$32,388	Ongoing (through ?)
II	1	Preparation for Field Activities	\$10,000	June 2014 – June 2015
II	2	Field Monitoring	\$80,000 - \$160,000	June 2014 – June 2015
II	3	Laboratory Analysis	\$250,000 - \$1,000,000	June 2014 – June 2015
II	4	Data Processing	\$25,000	June 2014 – June 2015
II	5	Meetings and Coordination	\$35,000	June 2014 – June 2015
III	1	Analysis of Field Data	\$20,000	Sept 2015 - Feb 2016
III	2	Application of Model	\$80,000 - \$280,000	Sept 2015 - Feb 2016
III	3	Development of Inventory	\$25,000	Sept 2015 - Feb 2016
III	4	Meetings and Coordination	\$35,000	Sept 2015 - Feb 2016
		TOTAL	---	---

Comment [LDW1]: Some of this has been billed. Has budget been set aside for this task?

Comment [LDW2]: To be determined after input from ACE

(a) – LimnoTech Budgets for Phase II and III are planning level budgets only

³ Funding Strategy Document Reference: A4. Understand the Fate and Transport of PCB in the Watershed Phase 3

II. Source Identification and Control

This task includes identification of PCB hotspots, determination of ambient concentrations of PCBs (eg., in atmospheric deposition, groundwater, snowfall, rainfall), identification of PCB inputs from Lake Coeur d'Alene and tributaries, and product analysis (eg., yellow lines on the road, paint, oil, caulk, clothing). Budget for this task will also be used for an intern to conduct research (literature search) on products and sources (eg., Great Lakes and Delaware River Studies). The ultimate goal resulting from this phase of work is to develop actions to reduce or remove these sources from entering the Spokane River watershed.

Budget: \$25,000 (plus in-kind services)

III. Toxics Substances Control Act (TSCA) Regulatory Reform

In 40 Code of Federal Regulations (CFR), Part 761.3, the regulation states that "inadvertently produced" PCBs may be present in a manufacture process at an average concentration of 25 ppm up to 50 ppm maximum. This amount is 781,250,000 times greater than EPA's Human Health Water Quality Criteria (HHWQC) of 64 pg/L (parts per quadrillion). A 1983 publication by USEPA cites a report from Versar, Inc. stating that there are more than 200 chemical processes that can result in the production of "inadvertently produced" PCBs. Consumer products and other sources containing these allowable inadvertently produced PCBs are entering the environment through many different mechanisms (municipal wastewater, stormwater, paper recycling, ambient distribution and deposition). TSCA regulatory reform is needed to eliminate the production of products that are likely contributing PCBs to the environment and preventing attainment of the water quality standards in the Spokane River watershed.

Budget for this task will assist SRRTTF efforts to change current regulations that allow PCBs in products. Funding may be used to cover travel costs to engage congressional representatives, participate in EPA stakeholder groups, develop coalitions, engage manufacturers, etc.

Budget: \$20,000.

Comment [LDW3]: Background verbiage "The Department of Ecology conducted a literature search identifying the potential for atmospheric deposition of PCB to the watershed. Environmental studies in the watershed have also shown correlations with snow, rainfall, stormwater, and seasonal relationships. These sources (global, regional, and local) are not well understood. A better understanding of the quantity and composition of atmospheric PCB deposition is needed."

Comment [LDW4]: Where does LimnoTech QAPP belong for product testing? Here or in LimnoTech scope??

Attachment 1

Detailed LimnoTech Task Descriptions

LimnoTech Work Plan – Phase I (remaining tasks)

Phase I - Task 9: Quality Assurance Project Plan/ Sampling and Analysis Plan (partially funded - \$9416 remaining)

LimnoTech will prepare a Quality Assurance Project Plan (QAPP) that describes the quality procedures, criteria and corrective actions associated with the sampling and analysis program. The QAPP will be the basis for ensuring the type and quality of environmental data and information needed for a specific decision and that the quantity and quality objectives of EPA's Quality System (EPA, 2001; Requirements for Quality Assurance Project Plans, EPA QA/R-5) are met. Secondary data to be used in the modeling effort will also be addressed.

LimnoTech will also develop a Sampling and Analysis Plan (SAP) that describes the objectives of the program, sampling locations, criteria for initiating sampling, sampling methods, analytical parameters and protocols, and data management, to ensure that all resulting data is of adequate and consistent quality for use in the subsequent assessment effort. The SAP will be included as an appendix to the QAPP.

Deliverables:

- Draft QAPP/SAPP
- Interim QAPP/SAPP, incorporating feedback from SRRTTF
- Final QAPP/SAPP, incorporating feedback from Ecology

Phase I -Task 10: Scoping for Future Phases

LimnoTech will prepare a detailed scope, schedule, budget for Phase 2 work, consistent with information contained in the QAPP and SAP. LimnoTech will also provide refined schedules and budgets for Phases 3 and 4, updating the estimates from Task 1 with information gained during the course of the first phase.

Deliverables:

- Draft scope, schedule, and budget
- Final scope, schedule, and budget, incorporating SRRTTF and Ecology comments on draft scope

Phase I -Task 11: Meetings and Coordination

This task covers all meetings and other project coordination, and is divided into the following subtasks:

- Sub-task 11-1: Kickoff meeting (Phase 1a task)
- Sub-task 11-2: Monitoring objectives meeting (Phase 1a task)
- Sub-task 11-3: Mid-project meeting (Phase 1b)
- Sub-task 11-4: Public meeting (Phase 1b task)
- Sub-task 11-5: Project management and coordination (Split proportionately across Phase 1a and Phase 1b)

Comment [LDW5]: Have these subtasks been billed, has budget been appropriated for the ones that have??

LimnoTech Work Plan - Phase II – Implementation of Sampling and Analysis Plan

Phase II - Task 1: Preparation for Field Activities

Those organizations tasked with carrying out field monitoring will conduct the necessary preparatory activities to allow sampling to occur in accordance with the Sampling and Analysis Plan. These activities will include preparation of sampling equipment as well as sampling logs and forms for documentation of these activities. Arrangements will be made with the laboratory for sample delivery and to receive sample bottles prior to the beginning of field activities. In addition, access to sampling locations will be evaluated and permissions requested, if required.

Phase II - Task 2: Field Monitoring

The objective of the field monitoring is to collect data necessary to identify potential sources of PCB and dioxins. The field monitoring program will consist of implementing the sampling events described in the Sampling and Analysis Plan. Samples will be collected according to the requirements of the Sampling and Analysis Plan as well as the Quality Assurance Project Plan. All samples will be stored properly and delivered/shipped to the laboratory for analysis under the required chain of custody. Regular progress reports will be prepared and submitted over the course of the field monitoring. Deliverables:

- Progress reports

Phase II - Task 3: Laboratory Analysis

This task covers the laboratory analysis of the field samples obtained in Task 2. It is expected that this work will either be subcontracted out or contracted directly with the SRRTTF.

Phase II - Task 4: Data Processing

LimnoTech will obtain all laboratory results, perform data validation of the results, and enter the data into a database in a format suitable to SRRTTF and Ecology. The sampling results will also be evaluated to identify potential sources of PCB and dioxin. All sampling activities and results will be documented in a report which will include a description of sampling methods, problems encountered, analytical results, data validation methods and results and data interpretation.

Deliverables:

- Project Database
- Field Monitoring Report

Phase II - Task 5: Meetings and Coordination

This task covers all meetings and other project coordination, and is divided into the following subtasks:

- Sub-task 5-1: Field coordination
- Sub-task 5-2: Progress meetings
- Sub-task 5-3: Project management and coordination

Sub-task 5-1: Field coordination

LimnoTech will provide field coordination with the local contractor who will be conducting the field monitoring to ensure that the monitoring is conducted according to the Sampling and Analysis Plan and the Quality Assurance Project Plan. LimnoTech will also have a staff person on site to provide oversight for all sampling activities.

Sub-task 5-2: Progress meeting

LimnoTech will present interim field results at one meeting with the SRRITF and Ecology.

Sub-task 5-3: Project management and coordination

Preliminary Scope of Work for Phase 2 -4 Technical Consultant Support to SRRITF – 04/23/2013 draft
This task consists of project management activities, including preparation of monthly project status reports and phone participation in up to eight SRRITF meetings.

LimnoTech Work Plan – Phase III - Detailed Inventory of Sources and Sinks

Phase III - Task 1: Analysis of Field Data

LimnoTech will process all field monitoring data collected in Phase 2 into the format necessary to support their direct use in the Task 2 model application.

Deliverables:

- Technical memorandum summarizing model inputs

Phase III - Task 2: Application of Model

LimnoTech will calibrate and apply the model(s) selected in Phase 1 to generate information on sources and sinks of PCBs and dioxins throughout the watershed and Spokane River.

Deliverables:

- Draft model application report
- Final model application report

Phase III - Task 3: Development of Inventory

LimnoTech will process the model results generated in Task 2 into a detailed inventory of sources and sinks by source category, by watershed geographic areas, and by river segments starting at the outlet of Lake Coeur d'Alene, and progressing downstream to the terminus of the Spokane River.

- Draft inventory report
- Final inventory report

Phase III - Task 4: Meetings and Coordination

This task covers all meetings and other project coordination, and is divided into the following subtasks:

- Sub-task 4-1: Project meetings
- Sub-task 4-2: Project management and coordination