

Data Synthesis Workshop Recommendation

Background

The Task Force received a recommendation from the Tech Track work group to sponsor a data synthesis workshop to be held prior to June 30, 2019. At the February 27 Task Force meeting, the Task Force approved \$10,000 for LimnoTech to begin scoping for a data synthesis review, with the understanding that a follow up recommendation would be provided at the April 24 meeting by the Core Team planning the workshop and the Tech Track work group.

The Core Team has held two workshop planning calls, identified management questions and received a detailed description of LimnoTech proposed technical activities to be completed ahead of the workshop, with associated costs. Workshop dates have also been set for May 30 and 31. The Core Team would like to have LimnoTech begin as soon as possible on the technical activities, and accordingly is requesting the Task Force authorize additional funding for LimnoTech. The LimnoTech activities to be conducted ahead of the workshop are provided in the summary table below, along with associated costs and expected outcomes.

**SUMMARY TABLE OF PRE-DATA SYNTHESIS WORKSHOP TECHNICAL ACTIVITIES
PRELIMINARILY APPROVED DURING 3/29/2019 CALL**

ACTIVITY	OUTCOME(S)	COST
Sources		
Summation of existing pathway knowledge	<ul style="list-style-type: none"> • Magnitude of sources that can be clearly quantified • Potential magnitude of unknown sources • Define monitoring that could be done (and at what cost) to more accurately quantify unknown sources. 	\$3k
Examine fingerprints at Coeur d'Alene for seasonality differences	<ul style="list-style-type: none"> • Assessment of whether the nature of upstream sources varies seasonally 	\$3k
Examine in-river fingerprints for seasonality differences	<ul style="list-style-type: none"> • Potentially identify presence of seasonally-varying sources that we have not yet characterized. 	\$4k
Compare atmospheric fingerprints to potential delivery mechanisms	<ul style="list-style-type: none"> • Potentially identify atmospheric deposition as a contributor to various delivery mechanisms 	\$10k
Spatial assessment of PCBs in biofilm and water	<ul style="list-style-type: none"> • Identification of spatial discontinuities in relationship between biofilm fingerprints and water column fingerprints • Potential identification of new sources • Identification of data gaps 	\$3k

Relationships		
Spatial assessment of PCBs in fish and water	<ul style="list-style-type: none"> • Identification of spatial discontinuities in relationship between fish fingerprints and water column fingerprints • Assessment of extent to which fish tissue concentrations are driven by water column concentrations • Potential identification of new sources • Identification of data gaps 	\$5k
Simple partition model between water column and sediments	<ul style="list-style-type: none"> • Definition of expected sediment PCB concentration, given observed water column concentration • Estimation of preferential distribution to sediments for continuous sources. • Indirect evidence of contribution of un-accounted for source(s) 	\$3k
Expand simple model to consider wet weather loading	<ul style="list-style-type: none"> • Determination of whether stormwater sources contribute preferentially to sediment concentrations 	\$3k
Simple sediment-based bioaccumulation model (update of Serdar et al, 2011).	<ul style="list-style-type: none"> • Estimate of expected fish tissue concentrations, given observed water column and sediment concentration • Understanding of whether fish tissue PCB are at expected levels • Potential (indirect) identification of new sources 	\$2k
Simple biofilm -based bioaccumulation model (extension of Hobbs and Friese, 2016)	<ul style="list-style-type: none"> • Estimate of expected fish tissue concentrations, given observed water column and sediment concentration • Understanding of whether fish tissue PCB are at expected levels • Potential (indirect) identification of new sources 	\$4k
Status and Trends		
Statistical summary of water column PCB concentration in terms of mean and variability at locations and times	<ul style="list-style-type: none"> • Assessment of what we currently know, and with what level of certainty. 	\$3k
Trend analysis for water column	<ul style="list-style-type: none"> • Assessment of whether trends exist. • Determination of amount of data required to estimate future trends with confidence. 	\$5k
TOTAL COST FOR PREPARATION ACTIVITIES		\$48K

Recommendation to the Task Force

Approve the Data Synthesis workshop preparation activities and attendance, and the associated budget of approximately \$48,000.