## **Tech Track Status Report**

# Long Term Monitoring Program Targeted High Flow Sampling

Dave Dilks Spokane River Regional Toxics Task Force February 26, 2020 Task Force Meeting

#### Background

- We are actively involved in conducting two tasks that were identified during the 2019 Data Synthesis Workshop:
  - Recommendations for a long term monitoring program
  - Recommendations for targeted higher flow river monitoring
- Details will be discussed during next week's Tech Track meeting
- Third task identified during Data Synthesis Workshop will begin shortly
  - Follow-up Investigations from Multi-media Data Collection

#### **Background: Long Term Monitoring Program**

- Task Force is required to "make measurable progress toward meeting applicable water quality criteria for PCBs"
- Routine monitoring is an important component of demonstrating progress
  - Progress "could be demonstrated by ... measured reductions of toxics to or in the Spokane River"
- Many methods could serve as the basis for this monitoring program
- This work consists of reviewing several methods and making recommendations

#### **Media/Methodologies Being Evaluated**

	MEDIUM			
	Water Column	Sediments	Fish Tissue	Other
METHODOLOGY	Small volume grab samples	Grab samples	Multiple sizes and/or species	Osprey eggs
	Large volume composites	Enzyme-linked immunosorbent assay (ELISA)	Targeted species and year class	Point source discharges
	In situ solid phase extraction	Solid-phase passive devices		
	Passive sampling: SPMD			
	Solid-phase passive devices			
	Particulates (sediment trap)			
	Particulates (centrifugation)			
	Biofilm			

#### **Evaluation Criteria: Long Term Monitoring Program**

- Recommended method should:
  - Accurately represent current PCB loads and concentrations
  - Efficiently discerning when trends over time occur
  - Accurately represent concentrations as they decrease in the future
  - Remain relevant/acceptable over the lifetime of the monitoring program
  - Have costs that are consistent with the resources available to the Task Force

#### **Background and Objectives: Targeted High Flow Sampling**

- 2016 monthly monitoring data indicates the potential presence of non-point source PCB loads during higher river flow conditions
- Overall Objective
  - Determine if nonpoint PCB loads during non-low flow conditions are a significant source
- Near Term Objectives
  - Review the 2016 monthly sampling data to estimate non-low flow nonpoint source PCB contribution by month and river reaches
  - Prioritize the reaches for potential future study

### **Targeted High Flow Sampling: Objectives**

- Overall Objective
  - Determine if nonpoint PCB loads during non-low flow conditions are a significant source
- Task Objectives
  - Conduct mass balance similar as for synoptic surveys to estimate non-low flow nonpoint source PCB contribution by month and river reaches
  - Prioritize the reaches for potential future study

#### **Next Steps**

- Long Term Monitoring Program and Targeted High Flow Sampling
  - Distribute draft versions of technical memoranda to TTWG
  - Receive feedback during March 4 TTWG meeting
  - Incorporate TTWG feedback, report out at March Task Force meeting
  - Submit for approval at April Task Force meeting
- Follow-up Investigations from Multi-media Data Collection
  - Work will begin upon receipt of Ecology 2019 data