Project/Description	Preliminary Cost Range	What It Will Tell Us	How This Supports Comprehensive Plan
I. Long-term effectiveness monitoring			
Define the goals and objectives for a long-term sustainable monitoring program along with the associated methodologies for such a program so that the effectiveness of PCB reduction activities in the watershed can be tracked by monitoring one or more media taking into account current measurement methodologies and their limitations relative to their ability to discern the potential magnitude of future reductions in PCB levels. Proposed path forward elements are: • Conduct a preliminary analysis of the potential media (e.g. fish, sediment, water column, point source discharges) and the associated methodologies that could be utilized for a long-term monitoring program that would track the effectiveness of PCB related reduction actions in the watershed • Develop a matrix that discusses the pros and cons for each media and methodology. Provide recommendation to include a proposed high level sustainable monitoring plan and the projected costs for the recommended plan. • Designs and prepare QAPP for the long-term monitoring program • Task Force implements long-term effectiveness monitoring program	 $15 - 25k $30 - $100k per event	Helps determine whether Task Force actions are resulting in a reduction in PCBs in one or more media within the Spokane River	Directly supports Section 6.1: Implementation Effectiveness Assessment
II a. Follow-up Investigations from Multi-media Data Collection/ID Hot Spots			
Identify, based on data already collected (i.e. water column, biofilm, sediment) from both Task Force conducted or supported sampling events, river reaches or segments of reaches where collected data indicate impacts from non-point sources are occurring or appear to be impacting the media sampled. • Develop a matrix that for each identified reach contains the data associated with the basis for having selected the identified reach or reach segment. For those reaches in a source contribution has been identified, provide a best estimate for the mass loading contribution. For those reaches in which impacted sediment has been identified, the matrix should also contain a best estimate of the aerial extent and concentration of the area identified • Prioritize the identified reaches based upon the estimated amount of mass contribution; for sediment impacted areas, prioritize based on the aerial extent and concentration • Based on the prioritization work, attempt to determine from the review of historical records if there may be any past land use information that might help to explain the identified impact. • Develop QAPP for additional data collection for the identified highest priority areas	 $20 - $30k $5k $10-20k $10k	Provides a quantitative ranking of the significance of unaddressed PCB sources.	Identifies and ranks PCB sources for potential clean up (Comp. Plan §5.14). Drawback is that there may not be a clear path for remediating these sources.

• Implement monitoring program.	$10-50k per event		
II b. Targeted Sampling to Define Non-Point Source Load During High Flow River Conditions			
Review the 2016 non-low flow water column monthly sampling data to estimate non-point source PCB contribution during higher-flow river conditions. • Develop a matrix of the sampled river reaches that contains data comparisons for non-point loading contribution under various river flow conditions • If the data comparisons for river reaches indicate discernable increased loading conditions, identify the impacted reaches and prioritize the reaches based on incremental mass loadings under higher river flow conditions • Design and prepare a QAPP for additional data collection for the identified highest priority reach over a range of river flow conditions as indicated by the 2016 data • Task Force implements focused data collection projects	$15 - 25k $30 - $50k per event	Identify whether significant loading sources exist that haven't been captured by low flow synoptic surveys	Identifies and ranks PCB sources for potential clean up (Comp. Plan §5.14). Drawback is that there may not be a clear path for remediating these sources.
II c. PMF Phase 2B			
Following the completion of Phase 2a work, determine the scope of any potential additional PMF identification work and how that work might be used to identify PCB "factors" and where they exist with the watershed	$20 - 30K	Identifies origin of PCBs in various environmental compartments.	Identifies PCB origins for potential clean up, but origin (e.g. Arochlor) does not necessarily define a specific source. Also, there may not be a clear path for remediating these sources.
II d. Improve Assessment of Dry Weather Groundwater Loads **i. Selective Low-Flow Water Column Synoptic Sampling**			
Conduct a synoptic sampling event under low-flow conditions to estimate the magnitude of groundwater loading contribution from the Spokane Gage to below Nine Mile Gage since previous work was negatively impacted by reservoir drawdowns and flow determination issues	$50 - 75k	Confirms whether previously identified loading exists.	Identifies PCB sources for potential clean up (Comp. Plan §5.14). Drawback is that there may not be a clear path for remediating these sources.
II d. Improve Assessment of Dry Weather Groundwater Loads **ii. Significance of Groundwater Loading from Sources Up-Gradient of Kaiser**			
Develop a methodology to annually track on an on-going basis any trending within the monitoring wells up-gradient of Kaiser utilizing PCB data collected and reported by Kaiser	$10k per year	Determines whether	Identifies PCB sources for potential clean up (Comp.

under their groundwater monitoring program to Ecology		sources up-gradient of Kaiser are significant.	Plan §5.14). Drawback is that there may not be a clear path for remediating these sources.
V. Items Discussed but not Initially Prioritized High Enough to Be Scoped			
a. Conduct additional R&D on emerging technologies for treatment facilities and disposal of PCBs once removed			
b. Establish sample location naming protocols that are common to all technical work activities.			
c. Evaluate ELISA (Enzyme-Linked Immunosorbent Assay) test kits for potential use as a screening methodology for the presence of PCB,			
d. PCB sniffing dog for high concentration areas.			
e. Linkage between PCB conditions found and fish tissue			
f. Effectiveness Monitoring – Track Metrics ▪ The number of locations identified by Task Force monitoring or research efforts that are contributing PCB that have been included in Ecology's Toxics Cleanup Program ▪ An estimate of the quantity of PCBs removed via treatment technology and other methods ▪ An estimate of the quantity of PCBs removed through sediment removal from stormwater catch basins and street sweeping ▪ An estimate of point source discharge related PCB removed by treatment systems ▪ A tracking of the number of outreach events the Task Force and individual members conduct			