

**Step 1** - Please fill out the following form and submit via email to your GIT Chair and coordinator (see <http://www.chesapeakebay.net/about/organized> for contact information).

**Table 1: Project Description**

<b>Your Name:</b>	Chris French
<b>Goal Implementation Team:</b>	Toxics Contaminant Workgroup
<b>Project Title:</b>	Quantifying Atmospheric Polychlorinated Biphenyls (PCBs) Deposition in the Chesapeake Bay Watershed
<b>Project Type</b> (See Section IV above):	Work Plan Implementation Project
<b>Goal/Outcome:</b>	<ul style="list-style-type: none"><li>• Toxic Contaminants Goal, Research Outcome</li><li>• Toxic Contaminants Goal, Policy and Prevention Outcome</li></ul>
<b>Estimated Cost:</b>	\$75,000

**Justification:** Provide a brief description of the work and why it is needed. It is recommended that you draw upon one or more work plans.

A modern day study of PCB atmospheric deposition rates within the Chesapeake Bay watershed that will facilitate more robust and accurate PCB TMDLs and future source identification studies & reduction strategies.

The primary goal of this study is to determine the extent of PCB atmospheric deposition that contributes to PCBs in storm water runoff into impaired water bodies. The objectives of this study are to 1) spatially determine air depositional PCB concentrations (or fluxes) that are applicable to different land uses (suburban, urban, industrial, and rural) and 2) establish temporal PCB concentrations (fluxes) from those land uses.

At the present time, reliable estimates are available for PCB loadings in the Chesapeake Bay from all but one of these potential sources: atmospheric deposition. There is currently a very limited number of atmospheric PCB loading studies within the Chesapeake Bay watershed (Leister & Baker, 1994; Offenberg & Baker, 1999; Brunciak et al, 2001). In the process of creating the Potomac PCB TMDL, atmospheric deposition was found to account for almost 10% of the total PCB loadings to the system. However, this may be an underestimate because the simulation was based solely on literature values (previously noted) and because those former studies relied on less-sensitive analytical methodologies.

This results in PCB TMDL studies that may not be as accurate as they should be; restricting the resulting implementation efforts of states and localities to reduce PCBs in the Chesapeake Bay watershed. The potential impact of atmospheric PCBs on NPDES Municipal Separate Storm Sewer System (MS4) permittees is unknown, but expected to be significant given that many will have TMDL Waste Load Allocations and are expected to show some level of progress towards achieving restoration goals and objectives.

	<p>This proposal will achieve forward progress in meeting the CBP Toxic Contaminants Workgroup's 2016-2017 Toxic Contaminants Research Work Plan, Management Approach 1, Key Action 6:</p> <ul style="list-style-type: none"> <li>• “<b><u>Better delineate PCB sources from</u></b> diffuse sources of land, release from deposits in stormwater pipes, and <b><u>atmospheric deposition.</u></b>”</li> </ul> <p>Furthermore, this proposal will also advance the CBP Toxic Contaminants Workgroup's 2016-2017 Toxic Contaminants Policy and Prevention Work Plan, Management Approach 4, Key Action 5:</p> <ul style="list-style-type: none"> <li>• “...determine the need for <b><u>further investigation of atmospheric sources of PCBs and characterization of PCB concentrations in atmospheric deposition in the Bay,</u></b> and determine the significance of these sources for bioaccumulation in fish.”</li> </ul>
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<p><b>Methodology:</b> Provide a 1-2 paragraph description of how the work is likely to be accomplished.</p>	<p>The successful researcher will develop a study based on a designated geographical area (determined by the GIT prior to the RFP release) and include four different land-use categories: suburban, urban, industrial, and rural. Urban atmospheres often contain PCB levels ten times the rural air concentrations (Offenberg &amp; Baker, 1999; Van Ry et al., 2002) and it has been observed that urban areas contain higher molecular weight PCBs suggesting that secondary sources (e.g., re-emission) are important (Du et al., 2009).</p> <p>Researchers will build upon the successfully implemented atmospheric deposition studies that have been piloted within the Delaware Bay Watershed in Pennsylvania and New Jersey over the past 15+ years. The successful candidate will utilize modern day PCB collection and analytical methods such as EPA Method 1668; ensuring proper Quality Assurance &amp; Quality Control (QA/QC) via implementing a Quality Assurance Project Plan (QAPP). Pending funding, analysis for other pollutants of concern - such as polycyclic aromatic hydrocarbons (PAHs) - may be considered by the GIT.</p>
<p><b>Cross-Goal Benefits:</b> What other goals may be advanced through this work?</p>	<ul style="list-style-type: none"> <li>• Sustainable Fisheries Goal, forage fish outcome</li> <li>• Vital Habitats Goal, stream health outcome</li> <li>• Stewardship Goal, local leadership outcome: “information that increases the knowledge and capacity of local officials related to water resources...that will support local conservation actions.”</li> <li>• Quantifiable effort to identify pollutant loadings linked to environmental justice issues within the Chesapeake Bay region</li> </ul>
<p><b>Are you willing to serve as GIT lead</b> (see description of the role in Section VI above) If no, suggest other GIT lead (with contact information)</p>	<p>Yes, as a co-lead with another GIT member who has direct experience with coordinating and implementing PCB TMDLs (e.g., a state TMDL Coordinator).</p>

**Step 2** - ONLY if your project idea is selected for funding and will be included in the RFP, you or the assigned GIT lead will be required to provide the following information (the Trust will send the RFP content guidance document to assist completing the Table 2 “Project Details.”):

**Table 2: Project Details**

<b>GIT Lead Name:</b>	
<b>Goal Implementation Team:</b>	
<b>Project Title:</b>	
<b>Refined Cost Estimate:</b>	
<b>Estimated Project Duration:</b>	
<b>Statement of Work:</b> Provide a detailed scope of work to be accomplished by the contractor, including information on methods, stakeholder participants, deliverables, due dates and intended uses of the products.	
<b>List specific deliverables/products to be provided by the contractor:</b>	
<b>QAP:</b> Will environmental data be generated, and will a quality assurance plan be required?	
<b>Qualifications:</b> List skills and experience required of winning bidder:	
<b>Bidders List:</b> Due to federal procurement guidelines, project ideas MUST be open to competitive bidding. List at least three entities (with contract information) to include in the RFPs	
<b>Reviewers List:</b> The Trust will use external review to evaluate bids. List at least 3 potential reviewers (with contact information) without a conflict of interest with likely bidders.	