Toxic Contaminants Policy and Prevention Outcome Effective date: 2016-2018

Goal: *Toxic Contaminants*
Outcome: Policy and Prevention

Long term Target: Continually improve practices and controls that reduce and prevent the effects of toxic contaminants below levels that harm aquatic systems and humans.

2 year Target: Completion of performance targets related to key actions

Partner contributions to 2 year target: As-listed under performance targets

Management Approach 1: Regulatory Approaches

Key Action *Description of work/project. Define each major action step on its own row. Identify specific program that will be used to achieve action.*	**Performance Target(s)** *Identify incremental steps to achieve Key Action*	**Partners** **Responsible** *Identify responsible partner for each step .*	**Geographic Location**	**Timeline** *Identify completion date (month and year) for each step.*	**Factors Influencing and/or Gap** *ID related factor or gap in Mgmt. Strat*
	Continue statewide fish tissue sampling for PCBs at 125 sites. Not all are in the Susquehanna Drainage. These are rotated to new locations every year.	PA DEP	Statewide in Pennsylvania	Sampling summer of each year. Lab analysis in fall. Analysis Following spring.	With the exception of very few industrial MS$ permitees, NPDES-regulated stormwater dischargers are not required to monitor for PCBs under any permit category

Estuarine probabilistic monitoring which includes a list of PCB congeners in sediment;	VA DEQ	Virginia estuarine tributaries.	On-going	High resolution analytical methods for PCBs is expensive and may be cost-prohibitive for larger scale track down studies.
Monitor all main stem tributaries to Bay listed as impaired. Fish PCB monitoring used on an as needed basis to monitor status;		Where-ever needed (funds for fish monitoring have been reduced).	Fish monitoring as needed to update data sets.	There is a broad geographic extent and distribution of PCBs
TMDL source investigation studies included where PCB TMDL being developed. Includes sediment monitoring and low level water column samples.		Tidal James River and tributaries, Elizabeth River and tributaries	2017	

1. Continue jurisdictional monitoring programs for PCB occurrence to assess need for new TMDLs and progress related to reducing PCB loads.	Continue annual PCB monitoring in support of PCB TMDL development. Monitoring includes collection of water column (non-tidal/tidal), sediment and fish tissue samples for PCB analysis to support the development of water quality models in establishing PCB TMDLs.	MDE	303(d) New Vision - TMDL Prioritization Plan: Potomac River (Montgomery County) Potomac River (Frederick County)	2018	Political will to modify programs and/or create voluntary programs will influence the Partnership's ability to attain this key action.

Continue annual PCB fish tissue monitoring for MDE's Fish Consumption Advisory Program to assign state-wide fish consumption advisories. The program also provides fish tissue data for MDE's Environmental Assessments and Standards (EASP) and TMDL Programs to support Integrated Report listing assessment and TMDL development.		State-wide	Annually
Conduct fish tissue study.	DOEE (WQD-ESA).	District of Columbia	9/30/2017
Complete toxics monitoring on sediments in the Anacostia.			6/30/2018
Approximately every five years, West Virginia performs a statewide fish tissue assessment to inform both fish consumption advisory and 303(d) listing processes. Mercury and PCBs will be analyzed.	WV DEP	Eleven streams and three lakes are planned to be monitored in the Potomac basin in 2016.	Ongoing
Develop a QAPP to describe objectives, monitoring procedures and laboratory methods to be used to characterize toxics in the Delaware portion of the Chesapeake Bay drainage.		Headwaters of watersheds flowing from Delaware to the Chesapeake	Jun-17
Compile existing toxics data within the Delaware portion of the Chesapeake Bay drainage.		Headwaters of watersheds flowing from Delaware to the Chesapeake	Jun-17

	Collect up-to-date toxics data on surface water, surface sediment and biota within the Delaware portion of the Chesapeake Bay drainage.	DE DNREC	Headwaters of watersheds flowing from Delaware to the Chesapeake	Collection: June 2017 – June 2019	
	Collect deep sediment cores from a depositional area in the tidal Nanticoke River. Radio-date and analyze for contaminants to provide pollution history.		Tidal Nanticoke within Delaware	Collection: June 2017 – June 2019	
	Create priority list for sources in need of clean-up and restoration.		Headwaters of watersheds flowing from Delaware to the Chesapeake	Jun-20	
2. Continue TMDL implementation utilizing to the extent possible the outputs of this strategy including data compilations, results of enhanced monitoring, guidance documents and local-level input	Potomac River PCB implementation - includes point sources and MS4s. Point sources that exceed WLAs will submit PMPs.	VA DEQ	Virginia's embayments in the Potomac River.	On-going	Knowledge gaps currently exist on the relative sizes of various PCB sources.
	Tidal James/Elizabeth Rivers – point sources that have not screened effluents using the low level method will be required to do so. Facilities that have screened their effluents and exceed their WLA will be required to submit PMPs.		Tidal James/Elizabeth Rivers and applicable tributaries	On-going once TMDL is completed	Political will to modify regulatory programs and/or create voluntary programs will influence the Partnership's ability to attain this key action.

	Phase 1 MS4's which have been assigned a WLA within a PCB TMDL requiring a PCB load reduction are required to develop a PCB Implementation Plan within one year of an approved TMDL.	MD MS4's	Baltimore County, Baltimore City, and Montgomery County have developed implementation plans for various TMDLs including the Baltimore Harbor, the Back River, and the Anacostia River.	On-going within one year of TMDL completion.	
	Finalize the District Consolidated TMDL Implementation Plan, and incorporate elements into District's next MS4 Permit.	DOEE, DDOT, DGS, and Federal Landholders	District of Columbia	On-going	
	Implement stormwater BMPs and green infrastructure to meet TMDL IP's first set of 5-year milestones.				
3. Develop guidance on integration of the various programs addressing toxics to reduce inconsistencies in analytical methods, target thresholds, and investigation and remediation approaches (e.g. extent to which risk assessment requirements under contaminated site regulations evaluate potential carcinogenic effects from fish consumption by comparing ambient surface water concentrations of PCBs with human health criterion used in site cleanups).	Make a recommendation that STAC (or other partner such as the Interstate Technology and Regulatory Council or ASTSWMO) assemble a workshop of experts to discuss the integration of analytical methods, target thresholds and investigation/remediation approaches to achieve consistency.	TCW	Bay watershed-wide	2016-2017	There is inconsistent interpretation of data among air/water/waste programs.

					There are inconsistencies across programs in the methods used to analyze PCBs in environmental media.
	Develop a “white paper” based upon the outcome of the workshop (e.g. formation of an expert panel).	STAC/Other Partner		2016-2017	
	Determine status of efforts to coordinate these processes at a national level and stay informed of/participate in those conversations.	TCW		2016-2017	There is limited PCB monitoring data from Bay jurisdictions for regulated contaminated sites using high resolution congener-based methods such as EPA Method 1668.
4. Determine consistent implementation measures to use throughout the Bay watershed for tracking TMDL development and implementation progress.	Develop maps to track locations where PCB TMDLs are active, under development, and needed.	CBP GIS team and Bay watershed jurisdiction GIS leads	Bay watershed-wide	2016	There is broad geographic extent and distribution of PCBs. There is a variety and sources of pathways for PCBs entering the environment that necessitate a wide range of different management responses.

	Assess available information on identified management action implementation and determine next steps (e.g. status of npdes permits with regards to inclusion of PMP; MS4 action plans to ID potential IDDE connections to PMPs)	TCW and Bay watershed jurisdictions' TMDL programs		2016-2017	
5. Determine whether the jurisdictions compile existing PCB outfall monitoring data for NPDES dischargers and assist with development of systems to compile all available information from governmental and academic organizations. This inventory will help determine whether there is a need for additional monitoring requirements to support TMDL development and implementation.	Reasonable potential analysis during permit reviews includes PCBs	PA	Statewide in Pennsylvania	No specified time. New permits and as permit renewals come due.	Inconsistencies across programs in the methods used to analyze PCBs in environmental media.
	Virginia has an Access Database used to store PCB data obtained from a wide array of matrices (sediment, water, effluent, etc.). The database structure, obtained from DRBC, was designed specific to storing data analyzed and reported using method 1668 including 209 PCB congeners (aka DRBC protocol).	VA	Statewide in Virginia	On-going	
	Compile an issue paper to describe the current state of monitoring and outline the roadblocks to enhancing those monitoring programs.	STAR and TCW	Bay watershed-wide	2016-2017	NPDES regulated stormwater dischargers do not currently have effluent concentration limits for PCBs in their permits.

6. EPA conducts an on-going National-scale Air Toxics Assessments (NATA). The 2011 NATA will be reviewed upon release to identify the sources of and exposures to air toxics, including PCBs, within the Chesapeake Bay watershed.	Conduct a thorough review of the 2011 NATA report. Determine additional activities that could be helpful in determining where more atmospheric source data is needed.	TCW	Bay watershed-wide	2016-2017	There is a lack of data from atmospheric sources of PCBs.
7. Assess the information that is available and forthcoming (e.g., the characterization of Anacostia river sediments by DC Department of Energy and Environment) that describes the most highly contaminated in-stream sediments in the watershed to engage the jurisdictions and federal regulators to explore the feasibility of additional remedial actions such as capping and/or dredging.	Develop a final Remedial Investigation Report (RI Report) based on the 700 samples already collected along the 9-mile tidal portion of Anacostia River between FY14 and end of FY15.	DOEE and federal partners	1. District of Columbia (CSOs, MS4, streams, etc.).	Draft RI Report-February 2016; FS Report-2017	

	Study brown bullhead tumors in tidal Potomac River and Anacostia River between 2014-2016, establish trends, if any, and to determine whether or not any established trends are local or regional;).	DOEE and FWS	Potomac River and Anacostia River	Annual Reports 2015-17 The 2014 Annual Report will be published in January 2016.	PCB contaminated sediments can be large-scale in volume and mass, which makes the application of remediation options a difficult task.
	Install gauging and sampling stations in NW Branch, NE Branch and Lower Beaver dam Creek. Sampling storms by collecting sediment samples using innovative USGS tested methods to calculate loads for six episodes.	DOEE and USGS	NW Branch, NE Branch and Lower Beaver dam Creek.	Annual Report of findings from upstream monitoring	
	Collect data to identify sources and characterize contributions from those sources, including CSOs, MS4 outfalls, streams, and upstream contributions.	DOEE and USGS	District of Columbia	Annual Report Dec 2016	

8. The EPA Region 3 HSCD Site Assessment program will continue to track sites that are being evaluated in the Chesapeake Bay Watershed. Additionally, a GIS desktop tool is being developed to assist HSCD in identifying potential land sources of contamination in the watershed. This project is not limited to PCBs, but any type of contamination that could be migrating from CERCLA sites and affecting the watershed. The GIS tool will help to identify potential CERCLA sites and their proximity to environmentally sensitive areas and receptors to better focus on priority site evaluations. The use of EJ SCREEN will be evaluated to identify the location of such sites in areas with diverse populations.	Ongoing tracking in SEMS of work in Ches. Bay Watershed Site assessment decision forms have been updated to include checkbox on whether site is in Ches. Bay Watershed, and/or priority areas (Baltimore Harbor, Anacostia, Elizabeth River)	EPA HSCD	EPA R3 office	Ongoing	Data compilation for Enhanced Regulatory Programs
	Meet with CBO GIS team to go over available data layers that might be of use to site discovery effort - Site Assessment Mapper (SAM) GIS tool is completed and ready for use – EJscreen is a data layer in SAM	EPA HSCD, TCW	R3 or CBO	Sept - Oct/2015	
	Provide information to TCW for potential GIS mapping on CERCLA NPL sites in the watershed that may be undergoing PCB remediation.	EPA HSCD			

9. The HSCD Site Assessment Program will conduct work share meetings with our State counterparts once per year to determine who will be the lead agency for further investigation of any potential PCBs sites that are on the active sites list.	During yearly workshare meeting, TCW workplan will be a discussion point at the meetings and will use the initiative in the prioritization of sites to be evaluated in the CA Also, other sites identified in #10 below or by other methods in trackdown studies, etc. may be better addressed under State VCP or other State programs. This will also be discussed at workshare meetings.	HSCD, State Site Assessment Counterparts	Meetings held either at State offices/ EPA R3/conf. calls	Dec. 2016	There is limited PCB monitoring data from Bay jurisdictions for regulated contaminated sites using high resolution congener-based methods such as EPA Method 1668.

10. HSCD and TCW will continue to evaluate sites to identify industries or processes that used PCBs. Once this list is generated, the CERCLA, Brownfields, and RCRA programs can better focus resources on identifying and investigating these types of sites. As significant sources of PCBs, or other contaminants that are migrating into the watershed from contaminated land sources are discovered, HSCD will share this information as part of the progress monitoring of this strategy. Additionally, if there are potential land sources that other programs have found, HSCD can investigate those potential sources through coordination with the appropriate authority.	Identification and mapping of potential industries that historically used PCBs in the watershed	HSCD, TCW, TSCA	Chesapeake Bay Watershed	Mar-16	There is limited PCB monitoring data from Bay jurisdictions for regulated contaminated sites using high resolution congener-based methods such as EPA Method 1668. Limited information exists on potential sources of PCBs, including biosolids, dredged materials from stormwater BMPs, and construction activities.
	Discuss potential PCB sources with TCW and TSCA (e.g., power plants, railroad maintenance yards, etc.)			Oct/Nov 2015	

	Identify locations of industries within the watershed that may be potential PCB sources	HSCD		Nov/Dec 2015	There is broad geographic extent and distribution of PCBs.
	Obtain information on PCB hotspot areas within the watershed and try to correlate CERCLA sites or other sites identified from above with those hotspots.	HSCD, TCW		Mar-16	
	Use information and data generated from above to pre-screen and prioritize sites to determine whether further assessment is needed and by whom.			April 2016-Dec 2017	

11. The EPA R3 NPDES Permits Branch will continue to address PCBs through the CWA framework. Where waters have been identified as impaired and a TMDL has been established creating WLA for point sources, the NPDES Permitting program will ensure that permits are consistent with the TMDL. The NPDES Permitting Program will draft and review permits with a focus on ensuring that PCB WLAs are clear and enforceable. The NPDES Enforcement Program, through state oversight and its independent compliance monitoring and enforcement authorities, will ensure that permit requirements are met. If a permittee is in non-compliance with its compliance obligations, EPA will take timely and appropriate action, including exercising its enforcement authority, to ensure that the permittee returns to compliance in an expeditious manner.	The NPDES Permitting Program will draft permits with a focus on ensuring that PCB WLAs are clear and enforceable and consistent with the TMDL.	EPA R3 NPDES Permits Branch	Chesapeake Bay Watershed	2016-2017	Except for very few industrial MS4 stormwater permittees, NPDES-regulated stormwater dischargers are not required to monitor for PCBs under any permit category.
	The NPDES Permitting Program will review permits developed by the jurisdictions with a focus on ensuring that PCB WLAs are clear and enforceable and consistent with the TMDL.	EPA R3 NPDES Permits Branch			

	The NPDES Enforcement Program, through state oversight and its independent compliance monitoring and enforcement authorities, will ensure that permit requirements are met. If a permittee is in non-compliance with its compliance obligations, EPA will take timely and appropriate action, including exercising its enforcement authority, to ensure that the permittee returns to compliance in an expeditious manner.	EPA R3 NPDES Permits Branch	Potomac Watershed		NPDES-regulated stormwater dischargers do not currently have effluent concentration limits for PCBs in their permits.
12. The EPA R3 Land and Chemicals (LCD) Toxics Program Branch will continue to ensure compliance with PCB TSCA regulations through its PCB inspection and enforcement program. Inspections will be targeted based on potential for releases, cumulative burden on EJ communities, or permitting. The R3 Toxics Program Branch will also responds to on tips/complaints that involve potential for illegal disposal and significant risk.	In 2016 and 2017, the EPA R3 LCD Toxics Program will perform inspections at facilities within the R3 states based on potential for PCB releases, cumulative burden on EJ communities, or permitting. The R3 Toxics Program Branch will also responds to on tips/complaints that involve potential for illegal disposal and significant risk.	EPA Region 3	Region 3 states with a focus on the Chesapeake Bay Watershed	2016-2018	There is broad geographic extent and distribution of PCBs.

		Land and Chemicals Division			There are knowledge gaps on the relative sizes of PCB sources.
13. The EPA R3 LCD Office of Materials Management will continue to partner with the Maryland Department of Environment to oversee the PCB clean up at the Lockheed Martin plant located in Middle River, Maryland. The Middle River facility, which is located on Cowpen Creek, is considered to be a major contributor to PCBs in the Bay. Phase 2 of the clean-up is commencing.	Overall performance target is completion of remedial actions specified in the Feasibility Study approved by MDE and EPA Region III. Incremental steps include permit applications, approvals, mobilization, sediment removal, confirmatory sampling, in situ treatment amendment application, post-closure bioaccumulation monitoring, and a 5-year review submittal	Lockheed Martin is performing the remediation under an Administrative Consent order with the MDE. The project will require EPA approval of a Risk Based Disposal Approval Application (RBDAA) to manage the PCB remediation waste, and a separate conditional RBDAA approval for the application and monitoring of *in situ* amendments to reduce the bioavailability of residual PCBs within Dark Head Cove.		Joint Permit Application submittal expected – November 2015	EPA Region III approval of RBDAA including remedial cleanup design, baseline and post-remedy bioaccumulation monitoring program.

		Permits to perform the remedial work will have to be secured from various entities of the MDE, U.S. Army Corps of Engineers (USACE), Baltimore County, etc.	Middle River, Maryland. Waters immediately adjacent to the Lockheed Martin Middle River Complex facility including Dark Head Cove and Cow Pen Creek.	RBDAAs submittal expected – January 2016 All Permit Approvals for remediation mobilization – October 2016 Completion of Dark Head Cove Sediment Removal – February 2017	Most in water work is restricted to be performed between October 15 and February 15 to avoid fish spawning and sub-aquatic vegetation-based time of year restrictions hence the need for timely permit approvals.	

				Completion of Cow Pen Creek Sediment Removal – February 2018 Completion of *in situ* treatment amendment application – February 2018 Submittal of 5-year review and *in situ* treatment effectiveness do	
14. EPA will publish the April 7, 2010 Advanced Notice of Proposed Rulemaking (ANPRM) in the Federal Register for Public Comment. The Proposed Rulemaking is to reassess the ongoing authorized uses of PCBs to determine whether certain use authorizations should be ended or phased out because they can no longer be justified under section 6(e) of the Toxic Substances Control Act, which requires that the authorized use will not present an unreasonable risk of injury to health and the environment.	Publish the Advanced Notice of Proposed Rulemaking (ANPRM: April 7, 2010) in the Federal Register for Public Comment.	EPA Office of Chemical Safety and Pollution Prevention, Office of Pollution Prevention and Toxics	National	Proposed Rule FY 2016	Political will to modify regulatory programs and/or create voluntary programs will influence the Partnership's ability to attain this key action.

Management Approach 2: Education and Awareness

Key Action *Description of work/project. Define each major action step on its own row. Identify specific program that will be used to achieve action.*	Performance Target(s) *Identify incremental steps to achieve Key Action*	Partners Responsible *Identify responsible partner for each step .*	Geographic Location	Timeline *Identify completion date (month and year) for each step.*	Factors Influencing and/or Gap *ID related factor or gap in Mgmt. Strat*
1. Develop PMP guidance document for the control and reduction of PCBs in NPDES regulated stormwater and wastewater including an inventory of stormwater BMP options. This document would provide guidance to all Bay jurisdictions in implementing PCB load reductions established for dischargers through TMDL development while recognizing the need for flexibility in PMP design. Develop guidance for unregulated sources of PCBs for use in developing implementation plans under TMDLs.	Contingent upon completion of VA DEQ's work to evaluate and assess cross-jurisdiction applicability	VA DEQ (The document will be Virginia Specific, but can serve as a prototype for a larger effort)	Bay watershed-wide	2017	There is insufficient knowledge regarding the effectiveness of PCB removal from stormwater BMPs designed to remove nutrients and sediments.

2. Working with local government and non-profit organizations, the TCW will inform the public regarding risks from consuming contaminated fish by developing communications materials and corresponding procedures for their dissemination throughout the targeted communities.	Secure GIT Project funding.	Diversity Action Team	Bay watershed-wide	Oct-15	The public is generally unaware of the potential health impacts of consuming fish with elevated levels of PCBs and continued presence of PCBs in many sources within the environment.
	Inventory existing approaches to issuing fish consumption advisories and study effectiveness of and compliance with those advisories in order to develop enhanced tools	Project award recipient in coordination with DAT and TCW		Feb-16	
	Test the new tools and work on optimization	Project award recipient in coordination with DAT and TCW		March-November 2016	
	Implement and disseminate new tools in order to explore the extent to which diverse populations are located in areas where fish advisories are being issued, using EPA's EJSCREEN tool.	Bay Program partners		Dec-16	

3. Compile education materials regarding existing procedures and best practices for containment and prevention of release of PCBs.	Identify potential resources	TCW	Bay watershed wide	2016-2017	Limited information exists on potential sources of PCBs, including biosolids, dredged materials from stormwater BMPs, and construction activities.
	Compile education materials				There is insufficient knowledge regarding the effectiveness of PCB removal from stormwater BMPs designed to remove nutrients and sediments.

Management Approach 3: Voluntary Programs

Key Action *Description of work/project. Define each major action step on its own row. Identify specific program that will be used to achieve action.*	Performance Target(s) *Identify incremental steps to achieve Key Action*	Partners Responsible *Identify responsible partner for each step .*	Geographic Location	Timeline *Identify completion date (month and year) for each step.*	Factors Influencing and/or Gap *ID related factor or gap in Mgmt. Strat*
1. Coordinate a voluntary action program to reduce transformers and other PCB containing equipment (e.g., fluorescent light ballasts). Include those classified as PCB free (less than 50 ppm) Provide to program participants information on remediating PCB contamination on-site from historical releases of these transformers and use EPA's EJ SCREEN tool to help identify where such equipment is located in areas with diverse populations.	Identify a project lead	TCW	Bay watershed wide	2016-2017	Political will to modify programs and/or create voluntary programs will influence the Partnership's ability to attain this key action.
	Estimate location and volume of PCB-containing equipment	Contingent upon available resources			
	Estimate costs of replacing PCB-containing equipment	Contingent upon available resources			

	Identify potential incentives and present summary of cost information to land owners	Contingent upon available resources			
	Obtain commitment from land owners to voluntarily replace PCB containing equipment with consideration to include activities in areas with diverse populations	Contingent upon available resources			

Management Approach 4: Science

Key Action *Description of work/project. Define each major action step on its own row. Identify specific program that will be used to achieve action.*	Performance Target(s) *Identify incremental steps to achieve Key Action*	Partners Responsible *Identify responsible partner for each step .*	Geographic Location	Total Available Funding *Roll up of estimated funding*	Factors Influencing and/or Gap *ID related factor or gap in Mgmt. Strat*
1. Support research on cost-effective tools for track-down studies and provide a mechanism for municipalities to share information on lessons learned from PMP development and implementation strategies and methods for documenting and sharing the information.	Apply for GIT project funding, or secure other resources.	TCW	Bay watershed-wide	Unknown	High resolution analytical methods for PCBs is expensive and may be cost-prohibitive for larger scale track-down studies. It is unknown whether sufficient funding will be available to achieve this key action.
	Conduct interviews, literature reviews and hold a technical workshop to gather information on best practices.	Contingent upon resources			
	Develop a guidance document on best practices for effective implementation of PCB track down studies in the TMDL context	Contingent upon resources			

2. Identify barriers and opportunities related to more frequent use of EPA 1668 for contaminated sites, wastewater and regulated and unregulated stormwater dischargers as a screening tool (as is underway in VA) or for a targeted subset of permittees. This effort could also be targeted to industrial stormwater permittees with SIC classifications that indicate the facility has the potential for PCB contamination on site from historical use or current operation or disposal of PCB containing materials.	Apply for a STAC workshop or identify additional potential resources	TCW	Bay watershed-wide	Unknown	It is unknown whether sufficient funding will be available to achieve this key action.
		VA DEQ		Staff Time	
3. Encourage use of the high-sensitivity congener-based methods to analyze PCBs to ensure that PCB sources are being characterized accurately when such characterization can help with source identification	Apply for a STAC workshop of identify an alternative funding source to achieve this item.	TCW	Bay watershed-wide	Unknown	
		VA DEQ		Staff Time	

4. A project was completed to determine the relative amount of PCB reduction that might occur across the range of BMPs implemented for the Chesapeake Bay nutrient and sediment TMDL. The BMPs will be cross-correlated with contaminant pathways and their association with land use and industrial sources (e.g., urban stormwater, agriculture, landfills, dredged material disposal facilities, hazardous waste sites, and industrial operations). The study assessed and explained the most beneficial management actions that could leverage current TMDLs and watershed implementation plans (WIPs) to achieve multiple benefits for nutrient, sediment, and toxic contaminant reductions.	Estimate the potential toxic contaminant reduction associated with the implementation of BMPs for sediment and nutrient reduction under the Chesapeake Bay TMDL.	Chesapeake Stormwater Network and TCW	Chesapeake Bay-wide		Limited information exists on potential sources of PCBs, including biosolids, dredged materials from stormwater BMPs, and construction activities. There is insufficient knowledge regarding the effectiveness of PCB removal from stormwater BMPs designed to remove nutrients and sediments.
	Provide water resource managers with better BMP data to develop more effective local TMDLs to control toxic pollutants in the watershed.				
	Recommend specific stormwater treatment and pollution prevention practices that could maximize removal of toxic contaminants in the Bay watershed				

5. Review the 2015 NATA report to determine the need for further investigation of atmospheric sources of PCBs, characterization of PCB concentrations in atmospheric deposition to the watershed and Bay, and determine the significance of these sources for bioaccumulation in fish. Homolog distribution profiles for PCBs in atmospheric deposition could be evaluated to determine whether mid-weight congeners are present at levels that significantly contribute to bioaccumulation in fish.	Review NATA report	TCW	Bay watershed-wide	Fully Funded + Staff time	There is a lack of data from atmospheric sources of PCBs.
	Review atmospheric deposition study based in Delaware estuary				
	Analyze need for next steps				

Definitions:

EPA	U.S. Environmental Protection Agency
DE DNREC	Delaware Department of Natutral Resources and Environmental Control
DOEE	District of Columbia Department of Energy and Environment
MDE	Maryland Department of the Environment
MD DNR	Maryland Department of Natural Resources
NYS DEC	New York State Department of Environmental Control
PA DEP	Pennsylvania Department of Environmental Protection
VA DEQ	Virginia Department of Environmental Quality
WV DEP	West Virginia Department of Environmental Protection
USGS	U.S. Geological Survey
FWS	U.S. Fish and Wildlife Service

UMCES	University of Maryland Center for Environmental Science
UMBC	University of Maryland Baltimore County
NOAA	National Oceanic and Atmospheric Administration
USDA	U.S. Department of Agriculture
NRCS	National Resource Conservation Service
DoD	U.S. Department of Defense
USACE	U.S. Army Corps of Engineers
DOT	Department of Transportation
SRBC	Susquehanna River Basin Commission
CBP	Chesapeake Bay Program Partnership
CBPO	Chesaoeake Bay Program Office
WQGIT	Water Quality Goal Implementation Team
STAC	Scientifical and Technical Advisory Committee
MB	Chesapeake Bay Program's Management Board
PSC	Chesapeake Bay Program's Principles' Staff Committee
WIP	Watershed Implementation Plan
TMDL	Total Maximum Daily Load
NATA	National Air Toxics Assessment
DAT	Chesapeake Bay Program Diversity Action Team
HSCD	EPA Hazardous Site Cleanup Division
TSCA	Toxic Substance Control Act
PMP	Pollution Minimization Plan
ASTSWMO	Association of State and Territorial Solid Waste Management Officials
CSN	Chesapeake Stormwater Network