Toxic Contaminants Policy and Prevention Outcome

Effective date:

2016-2018

Goal: *Toxic Contaminants*
Outcome: Policy and Prevention
Long term Target: Reduce the impact to human health and resources (Language from goal statement)
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.*	**Estimated Project Cost** *Best estimate total cost of project (need)*	**Available funding by Partner**	**Total Available Funding** *Roll up of estimated funding*	**Factors Influencing and/or Gap** *ID related factor or gap in Mgmt. Strat*
1. Continue jurisdictional monitoring programs for PCB occurrence to assess need for new TMDLs and progress related to reducing PCB loads.	1. Conduct fish tissue study. 2. Complete toxics monitoring in Anacostia. 3. Develop new and improved data sets to estimate atmospheric deposition contribution (and use the result to update model input data).	1. DOEE (WQD-ESA). 2. State of Maryland. 3. Federal Government (EPA Region 3; Department of Interior (Fisheries and Wildlife Services (FWS)). 4. Other(s) (Academic Institutions: (Howard University); NGOs, etc.).	1. District of Columbia. 2. Including upstream sources in Maryland.	9/30/2017 (applicable to the fish tissue study only)	$100,000 (applicable to the fish tissue study only)	Yes (applicable to the fish tissue study only)	$100,000 (applicable to the fish tissue study only)	1. Limited joint watershed-based monitoring initiative. 2. Variable fish advisory triggers across jurisdictions. 3. Lack of information on the contribu atmosph industria 4. Fragmented stakeholders' input for this specific information.

Commented [WD1]: JURISDICTIONS: Please provide brief descriptions of current monitoring programs/activities in place for PCBs.

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	1. Finalize the District Consolidated TMDL Implementation Plan, and incorporate elements into District's next MS4 Permit. 2. Implement stormwater BMPs and green infrastructure to meet TMDL IP's first set of 5-year milestones.	1. DOEE 2. DDOT 3. DGS 4. Federal Government (Federal landholders).	1. District of Columbia. 2. Including upstream sources in Maryland.	On-going	To be determined	Yes	Approximately $9 million annually from DOEE Stormwater Enterprise Fund	1. TMDL IP still subject to EPA approval 2. Implementation Timelines are expected to be lengthy 3. 3. Planning process has highlighted need to revisit and refine many TMDLs and WLAs
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).	TMDL listing and delisting document- does it need to be reviewed to address this specifically? Is the sediment project following a guidance they developed or using someone else' guidance to evaluate their data?	?	1. District of Columbia. 2. Including upstream sources in Maryland.	?	?	?	?	?

Commented [WD2]: JURISDICTIONS: Please provide brief description of anticipated TMDL implementation activities for the 2016-18 timeframe.

4. Determine consistent implementation measures to use throughout the Bay watershed for tracking TMDL development and implementation progress.	Maps will be developed to track locations where PCB TMDLs are active, under development, and needed.	?	1. District of Columbia. 2. Including upstream sources in Maryland.	?	?	?	?	?
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 requirement to support TMDL development and implementation.	1. EPA Region 3 compiles all PCB monitoring data from individual jurisdictions. 2. There is a need for NPDES permitted PCB benchmarking but current policy only requires benchmarking for permittees with impaired receiving waters.	1. DOEE. 2. EPA Region 3.	1. District of Columbia. 2. Including upstream sources in Maryland.	Not sure.	Not sure.	?	?	1. Current policies governing PCB monitoring for NPDES permittees. 2. Sensitive analytical methods: The 40 CFR 136 methods are not "sufficiently sensitive" to accurately quantify PCB loading. 3. Compiling data through the EPA Region 3 DMR tracking system is not feasible, so additional system(s) may be required. JURIS 4. DOEE ha outfall m which in period between 2001 and 2011. However, due to the issue highlighted in #2 above, this data record contains a large number of "non-detect" values.

Commented [WD3]: DICTIONS: Please indicate whether you have a database on PCB outfall monitoring or if not, some partners who may have some of that data

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.	1. A developed technical approach to estimate atmospheric deposition contribution (and use the result to update PCB air deposition loading for DC waters).	1. DOEE. 2. Federal Government (EPA Region 3), jointly with other partners would be beneficial	1. District of Columbia.	Start project in Dec /Jan 2016	$250K	Currently Unknown.	$100k-DOEE	1. Lack of current PCB air deposition monitoring data. 2. Still in the research phase of the plan for developing the technical approach for SOW 3. Joint funding with EPA and state partners would be more prudent.
7. Assess the information that is available and forthcoming (e.g., the characterization of Anacostia river sediments by DC Department of 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.	1. 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.	1. DOEE. 2. Federal Government (As part of this, DOEE:	1. District of Columbia (CSOs, MS4, streams, etc.). 2. Including upstream sources in Maryland.	Draft RI Report- Dec 2015; FS Report Sep 2016.	$8M	Unknown	$9M	1. Comprehensive Site Characterization for 9-mile tidal portions. 2. Cost sharing with partner states is also still being explored:
		(a) Has a Joint Agreement with FWS to 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;).		Annual Report 2015, 16 and 17	$200K	Unknown	$200K	(a)Include mussels in evaluating PCB bioaccumulation from sources; and
		(b) Has Joint partnership with USGS. Installing 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.	Maryland	Annual Report of findings from upstream monitoring	$170K	Unknown	$150K	(b)Use S… Membrane Devices (SPMDs) to conduct passive sampling for purposes of establishing relative loading rates from different sources.
		(c) Is currently collaborating with USGS to collect data to identify sources and characterize contributions from those sources, including CSOs, MS4 outfalls, streams, and upstream contributions.	DC	Annual Report Dec 2016	$250K	Unknown	$150K	

Commented [WD4]: D.C. partners: Please provide some recommended next steps.

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.	1. A finalized RI report, FS report. 2. Progresses on other projects are on-going for CERCLA sites within DC Boundaries.	1. District of Columbia. 2. Federal Government (Washington Navy Yard, JBAB, NPS).	1. District of Columbia (Sites include: Washington Navy Yard, Joint Base Anacostia Bolling (JBAB), Navy Annex, South East Federal Center, Poplar Point, Kenilworth Landfill, Kingman Island).	Uncertain	Unknown	Unknown	Unknown	Studies/Reports are still in various stages of being finalized.

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.	1. Formalize collaboration with state of Maryland for the purpose of identifying, delineating and quantifying contribution from upstream sources/sites (in Maryland), including uncontrolled releases.	1. District of Columbia. 2. State of Maryland 3. Federal Government (EPA).	1. State of Maryland (Sites include: US Agricultural Center in Beltsville, United Rigging & Hauling, Hyattsville Gas, Anacostia River Park, GSA Bladensburg, Roger's Electric, and Joseph Smith & Sons).	Uncertain	Unknown	Unknown	Unknown	Lack of formal commitment on the part of the two jurisdictions and EPA Region 3 to start working on this issue.

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 under the appropriate authority.	1. Based on the Consent Decree conduct RI and FS for contaminated sites in their respective environmental footprints and remediate the sites. 2. Also assess their outfalls and calculate the flux from all the sources contaminating the river.	1. District of Columbia. 2. Multiple Potentially Responsible Parties (PRPs) as identified in the Consent Decree.	1. District of Columbia (Multi-media: Land, Surface Water, Groundwater, and Outfalls).	Site Investigations and remediation	$300K	None so fat but would welcome funding partners	#200K	RI, FS Reports and quantification of and/or releases from the individual multi-media sources.

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.	This Key Action can be broken out into multiple performance targets.							

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.								
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.								
Management Approach 2: Education and Awareness								

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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.								
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.								

3.Compile education materials regarding existing procedures and best practices for containment and prevention of release of PCBs.								
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.*	**Estimated Project Cost** *Best estimate total cost of project (need)*	**Available funding by Partner**	**Total Available Funding** *Roll up of estimated funding*	**Factors Influencing and/or Gap** *ID related factor or gap in Mgmt. Strat*
4.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.								
5.								

Management Approach 4: Science

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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.								
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.								
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								
4. A project is underway 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 will assess and explain 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.	CSN will provide further details.							
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.								