Logic and Action Plan: Post-Quarterly Progress Meeting

Toxic Contaminants Policy and Prevention – 2023-2024

Long-term Target: An accelerating rate of decline of PCB levels in fish
Two-year Target: Completion of work activities. A two-year measure of PCB levels in fish is not available.

Factor	Current Efforts	Gap	Actions	Metrics	Expected Response and Application	Learn/Adapt
What is impacting our ability to achieve our outcome?	*What current efforts are addressing this factor?*	*What further efforts or information are needed to fully address this factor?*	*What actions are essential (to help fill this gap) to achieve our outcome?*	*What will we measure or observe to determine progress in filling identified gap?*	*How and when do we expect these actions to address the identified gap? How might that affect our work going forward?*	*What did we learn from taking this action? How will this lesson impact our work?*
Scale - Broad geographic extent and distribution of PCBs and other contaminants of concern (i.e. PAHs) - Variety of sources and pathways for PCBs entering the environment that necessitate a wide-range of very different management responses (e.g., primary sources	Considerable activity in implementing PCB TMDLs among the states particularly Maryland, Virginia, the District. Some level of coordination among the jurisdictions and through the Chesapeake Bay Program. The toxic contaminants workgroup is producing products	There are rivers and tidal segments in the watershed that are listed as impaired by the jurisdictions but do not yet have TMDLs in place The factors that are related to broad distribution of PCBs that enter the system through many sources are not directly managed by the CBP TCW. Rather	Coordination among the jurisdictions at a scale that is commensurate with the broad geographic distribution of PCB's. e.g., the PCB Consortium concept in Management Approach 5.	Level of interaction among jurisdictions Rate of development of PCB TMDLs	All PCB-impaired waters have active TMDLs in place. No time estimates available. The affect will be a TMDL framework in place that the partnership can then work together to optimize	

such as electrical equipment, secondary sources such as wastewater treatment by-products, and pathways such as stormwater runoff contaminated by air deposition or contaminated sites)	to help with identification of sources and pathways.	they influence at times the way we design work related to identifying and reducing sources of PCBs.				
Stakeholder Mindset - Political will to modify regulatory programs and/or create voluntary programs - Need to continue shifting paradigm by acknowledging that there are ongoing sources of PCBs (i.e., PCBs are not static "legacy" contaminants) - The extent of collaboration and coordination among the science and management communities at a scale that is commensurate with the extent of PCB impairments and TMDLs	The watershed jurisdictions and federal regulatory authorities have advanced work in highly contaminated areas including Anacostia River and Baltimore harbor.	The PCB contamination of waterways, sediment and fish receives minimal attention from CBP partners. Activities related to other pollutants particularly nutrients in sediment received the vast majority of focus Ann resources from CBP partners Jurisdictions have minimal motivation to coordinate on Interstate loads of PCB's. Little coordination takes place on TMDLs that have significant cross state loading issues	PCB Consortium Fish Consumption Advisory infographic	Level of interest, participation, inquiry and investment in PCB TMDLs by jurisdictions.	Measurement strategy needed	
Knowledge of Sources and Best Management Practices to Apply **-** Knowledge gaps on relative sizes of PCB sources and	The Toxic Contaminants Workgroup is producing products to help with identification of sources and pathways and to	Lack of comprehensive loading model for the waterdshed	BMP effectiveness studies	Amount of uncertainty in relative size of sources and BMPS most effective in eliminating or trapping PCBs	Increased understanding of BMP effectiveness by 2022 will affect CBP ability to build reliable PCB load estimating tools	

most effective best management practices	help with understanding of the relative sources of PCBs					
Cost **-** High cost of testing and remedies: in-stream sediment remediation; wastewater PCB source trackdown studies; electrical equipment replacements; stormwater controls; contaminated site remediation	Jurisdictions and federal regulators attempt to match data needs and remedial technology selections with the most cost-effective methods available	Slow pace of innovation in PCB testing and remediation technology to reduce cost	No specific activities. The factors that are related to the high cost of testing and remediation of PCBs are not directly managed by the CBP TCW. Rather they influence at times the way we design work related to identifying and reducing sources of PCBs.			

ACTIONS – 2023/2024					
Action #	**Description**	**Performance Target(s)**	**Responsible Party (or Parties)**	**Geographic Location**	**Expected Timeline**
Management Approach 1: Regulatory Programs					
1.1	Continue jurisdictional monitoring for PCB occurrence to assess need for new local TMDLs and progress related to reducing PCB loads.	Pennsylvania 1.1.1 Continue statewide monitoring for PCBs in fish at approximately 100 sites. Not all in Susquehanna drainage. Virginia 1.1.2 Estuarine probabilistic monitoring in small tidal tributaries and embayments of the CB which, includes a list of 21 PCB congeners in sediment.	PaDEP VaDEQ		

ACTIONS – 2023/2024					
Action #	**Description**	**Performance Target(s)**	**Responsible Party (or Parties)**	**Geographic Location**	**Expected Timeline**
		1.1.3 Monitor all main stem tributaries to Bay listed as impaired. Fish PCB monitoring used on an as needed basis to monitor status.	VaDEQ		
		1.1.4 TMDL source investigation studies TMDL being developed. Includes sediment monitoring and low-level water column samples. Future PCB monitoring will take place within PCB fish consumption impairments that require a TMDL which includes the Rappahannock and York Rivers. Field studies will be planned and implemented for these two Chesapeake Bay tributaries during 2021.	VaDEQ		
		<u>Maryland</u> 1.1.5 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. Datasets that trigger changes in listings will be shared with the TCW.	MDE		
		1.1.6 Conduct toxic contaminant monitoring for the tidal waters of Aberdeen Proving Grounds (APG).	MDE		
		1.1.7 Continue annual PCB fish tissue	MDE		

ACTIONS – 2023/2024					
Action #	**Description**	**Performance Target(s)**	**Responsible Party (or Parties)**	**Geographic Location**	**Expected Timeline**
		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. 1.1.8 Conduct fish tissue study. In FY 2020, DDOEE entered into an MOU with US Fish and Wildlife Service to conduct a fish tissue study. The project is expected to be completed in FY 2021. 1.1.9 Complete toxics monitoring on sediments in the Anacostia. Remedial Investigation, Feasibility Report and Proposed Plan reports were completed DDOEE is addressing public comments with a plan to produce an Interim Record of Decision (ROD) with a section dedicated to Responsiveness Summary. The interim ROD is scheduled to be posted on the DDOEE web site by September 30, 2020. 1.1.10 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.	DDoEE DDoEE WV		

ACTIONS – 2023/2024					
Action #	**Description**	**Performance Target(s)**	**Responsible Party (or Parties)**	**Geographic Location**	**Expected Timeline**
		1.1.15 Collect up-to-date Toxics data on surface water, surface sediment and biota within the Delaware portion of the Chesapeake Bay drainage. Results will be incorporated into Summary Report (in preparation). Anticipate completion by the end of 2020. 1.1.16 Collect deep sediment cores from a depositional area in the title Nanticoke River. Radio-date and analyze for contaminants to provide pollution history. Results will be incorporated into Summary Report (in preparation). Anticipate completion by the end of 2020. 1.1.17 Create priority list for sources in need of cleanup and restoration. Results will be incorporated into Summary Report (in preparation). Anticipate completion by the end of 2020.	DeDNREc DeDNREc DeDNREc		
1.2	Continue local 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.	Virginia 1.2.1 Potomac River PCB implementation includes point sources and MS4s. Point sources that exceed WLAs will submit PMPs. Several Individual permits and Stormwater Industrial permits have been identified as requiring PMPs and are at	VaDEQ		

ACTIONS – 2023/2024					
Action #	**Description**	**Performance Target(s)**	**Responsible Party (or Parties)**	**Geographic Location**	**Expected Timeline**
		different stages of implementation. MS4s have submitted Action Plans. 1.2.2 Tidal James and Elizabeth rivers point sources that have not screened effluent using the low level method will be required to do so. Facilities that have screened their effluence and exceeded their WLA will be required to submit PMPs. Additional point source monitoring will occur once the tidal James River PCB TMDL is in place; PMPs will be required at applicable facilities. <u>Maryland</u> 1.2.3 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. <u>District of Columbia</u> 1.2.4 Implement stormwater BMPs and green infrastructure to meet TMDL IP's first set of 5-year milestones. DDOEE is continuously working to implement and document BMPs to meet the required targets of the MS4 permit.	VaDEQ MDE DDoEE		
1.3	Determine consistent implementation measures to use throughout the Bay	1.3.1 Assess available information on identified management action implementation and determine next steps	TCW		

ACTIONS – 2023/2024					
Action #	**Description**	**Performance Target(s)**	**Responsible Party (or Parties)**	**Geographic Location**	**Expected Timeline**
	watershed for tracking local TMDL development and implementation progress.	(e.g. status of NPDES permits with regard to inclusion of PMP; MS4 action plans to ID potential IDDE connections to PMPs). Previous product was a memo on incorporating PMP approaches but not numeric effluent limitations. Follow up is needed to examine memo.			
1.4	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	Pennsylvania 1.4.1 Reasonable potential analysis during permit reviews should include PCBs, but is focused on industrial permits. Virginia 1.4.2 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).	PaDEP VaDEQ		
1.5	Continue remedial activities for Anacostia river sediments.	1.5.1 DDoEE will issue an Interim Record of Decision (Interim ROD) by Sept 30, 2020 that will specify the early actions DDOEE will take in remediating (e.g., removing / amending / capping) the early action areas. Once these early actions are completed, additional sampling and analysis, as described in a Performance Monitoring Plan, will determine if the early remedial actions have had their desired effects and if	DDoEE		

ACTIONS – 2023/2024					
Action #	**Description**	**Performance Target(s)**	**Responsible Party (or Parties)**	**Geographic Location**	**Expected Timeline**
		additional steps should be taken to achieve a fishable/swimmable Anacostia River.			
1.6	The EPA Region 3 SEMD Site Assessment program will continue to track sites that are being evaluated in the watershed a GIS desktop tool has been 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. EJ SCREEN has been added as a layer to help identify the location of such sites in areas with diverse populations.	1.6.1 Tracking is ongoing in the CB watershed. SEMD will continue to add layers to the GIS desktop tool. 1.6.2 EPA Region 3 will provide information to TCW for potential GIS mapping on CERCLA NPL sites in the watershed that may be undergoing PCB remediation.	EPA R3		
1.7	The SEMD 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 or mercury sites that are on the active sites list.	1.7.1 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 State Cooperative Agreement. 1.7.2 EPA SEMD and states will determine if sites identified may be better addressed under State VCP or other State programs.	EPA R3		

ACTIONS – 2023/2024					
Action #	**Description**	**Performance Target(s)**	**Responsible Party (or Parties)**	**Geographic Location**	**Expected Timeline**
1.8	If there are, HSCD will coordinate investigation of potential land sources that other programs have found those potential sources through coordination with the appropriate authority.	1.8.1 Obtain information on PCB or mercury hotspot areas within the watershed and try to correlate CERCLA sites or other sites. 1.8.2 Discuss potential PCB sources with TCW and TSCA 1.8.3 Use information and data generated from other programs to pre-screen and prioritize sites to determine whether further assessment is needed under Superfund.	EPA R3		
1.9	The EPA R3 NPDES Permits Branch will continue to address PCBs through the CWA framework. Where waters have been identified as impaired and a local 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 PCB waste load allocations Are clear and enforceable. The NPPDES enforcement program through state oversight and its independent compliance monitoring and enforcement authorities will ensure that permit	1.9.1 The NPDES enforcement program through state oversight and it's independent compliance monitoring and enforcement authorities will ensure that permit requirements are met.	EPA R3		

ACTIONS – 2023/2024					
Action #	**Description**	**Performance Target(s)**	**Responsible Party (or Parties)**	**Geographic Location**	**Expected Timeline**
	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.				
1.10	The EPA R3 Land and Chemicals 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 respond to tips slash complaints that involved potential for illegal disposal and significant risk.	1.10.1 In 2020 and 2021 EPA R3 will perform inspections at facilities within the R3 states based on potential for PCB releases, and burden on EJ communities or permitting. The R3 toxics program branch will also respond to tips and complaints.	EPA R3		
1.11	The EPA R3 LCD office of materials management will continue to partner with the Maryland Department of Environment to oversee the PCB cleanup at the Lockheed Martin Located in middle River Maryland. The middle River facility, which is located on Cowpen Creek, is considered to be	Performance target is completion of remedial actions specified in the feasibility study approved by MDE and EPA region 3. Incremental steps include permit applications, approvals, mobilization, sediment removal, confirmatory sampling, in-situ treatment amendment application, post closure bioaccumulation monitoring, and a five year review submittal.	EPA R3		

ACTIONS – 2023/2024					
Action #	**Description**	**Performance Target(s)**	**Responsible Party (or Parties)**	**Geographic Location**	**Expected Timeline**
	a major contributor of PCB's In the Bay. Phase two of the cleanup is underway.				
1.12	The Chesapeake Bay Commission will work collaboratively with the Bay Program partners to identify legislative, budgetary and policy needs to advance the goals of the Chesapeake watershed agreement	the Chesapeake Bay Commission will in turn pursue action within our member state general assemblies and the United States Congress. See CBC Resolution #14-1 for additional information on the CBC's participation in the management strategies	CBC		
Management Approach 2: Education and Awareness					
2.1	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 local 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.	2.1.1 Contingent upon completion of VA DEQ's work to evaluate and assess cross-jurisdiction applicability. Importance of document is recognized within DEQ as it has become a component of the Agency's Strategic Plan.	VaDEQ		
2.2	Design and implement a strategy to disseminate the Fish	2.2.1 Complete the User Guide and present to the Management Board for final	TCW		

ACTIONS – 2023/2024					
Action #	**Description**	**Performance Target(s)**	**Responsible Party (or Parties)**	**Geographic Location**	**Expected Timeline**
	Consumption Advisory Infographic and User Guide among partner organizations within and outside the Chesapeake watershed	comment. Make any final revisions based on comments. 2.2.2 Gather input from TCW and other CBP teams and design a strategy to promote the infographic with an emphasis on organizations that communicate with and support women of child-bearing age in urbanized areas 2.2.3 Implement the strategy using creative means to reach the maximum possible audience including pilot test a behavior change methodology using the FCA infographic.			
Management Approach 3: Voluntary Programs					
3.0	Explore the feasibility of a fluorescent light ballast (FLB) removal program in schools and other building types.	3.1.1 Work with the Sustainable Schools outcome team to develop an approach that will allow CBP to conduct an open and targeted program to direct funds (source TBD) to school systems for controlled removal of FLBs. 3.1.2 Engage at least two school systems (or other industry-type partner) in FLB removal program. 3.1.3 Benchmark any potential CBP actions against programs in Vermont and Puget Sound who are addressing PCBs in schools.	TCW		
Management Approach 4: Science					

ACTIONS – 2023/2024					
Action #	**Description**	**Performance Target(s)**	**Responsible Party (or Parties)**	**Geographic Location**	**Expected Timeline**
4.0	See the Toxic Contaminants Research Logic and Action Plan for PCB-related science activities				
Management Approach 5: PCB Consortium					
5.1	Explore the value and feasibility of creating and sustaining a broader scale forum for collaboration (e.g. a consortium) on the PCB TMDLs that are in place and under development across t watershed	5.1.1 Continue efforts to explore how to progress toward a more watershed-wide comprehensive implementation strategy or plan: • Maintain and collect information about the role for a PCB watershed consortium and expected assistance to be provided to TMDL implementers • Conduct conferences with other estuarine restoration programs that have PCB management strategies in place to learn how their stakeholders collaborate • Evaluate other models (e.g. Chesapeake Conservancy) for methods of funding one or more part-time or full-time positions to manage the operations of the consortium • Estimate the cost of a consortium • Prepare a report with jurisdiction input that summarizes options, costs and means of sustaining a collaborative forum.	TCW		