CBP Toxic Contaminants Work Group

Work Plan Highlights

**Goal:** Ensure that the Bay and its rivers are free of effects of toxic contaminants on living resources and human health.

**Outcome:**Continually improve practices and controls that reduce and prevent the effects of toxic contaminants below levels that harm aquatic systems and humans. Build on existing programs to reduce the amount and effects of PCBs in the Bay and watershed. Use research findings to evaluate the implementation of additional policies, programs and practices for other contaminants that need to be further reduced or eliminated.

**Management Approaches (‘Strategies’) & Highlights of Key Actions/Performance Targets**

## MA1. Regulatory Approaches

1. Continue jurisdictional monitoring programs for PCB occurrence to assess need for new local TMDLs and progress

* Statewide fish tissue sampling for PCBs at 125 sites
* Estuarine probabilistic monitoring
* Monitor impaired main stem tributaries; fish PCB monitoring as needed
* TMDL source investigation studies
* PCB monitoring survey on pre and post-ENR WWTPs in Maryland
* Continue annual PCB monitoring in support of PCB TMDL development
* Conduct toxic contaminant monitoring for the tidal waters of Aberdeen Proving Grounds (APG)
* Analysis of Bay-wide PCB concentration data to improve our understanding of PCB dynamic
* Continue annual PCB fish tissue monitoring for MDE’s Fish Consumption Advisory Program
* Conduct fish tissue study
* Complete toxics monitoring on sediments in the Anacostia
* West Virginia statewide fish tissue assessment
* QAPP to describe objectives, monitoring procedures and laboratory methods to be used to characterize toxics in the Delaware portion of the Chesapeake Bay drainage
* Compile existing toxics data within the Delaware portion of the Chesapeake Bay drainage
* Collect up-to-date toxics data on surface water, surface sediment and biota within the Delaware portion of the Chesapeake Bay drainage
* Collect deep sediment cores from a depositional area in the tidal Nanticoke River
* Create priority list for sources in need of clean-up and restoration

2. Continue local TMDL implementation

* Potomac River PCB implementation - includes point sources and MS4s. Point sources that exceed WLAs will submit PMPs.
* Tidal James/Elizabeth Rivers – point sources that have not screened effluents using the low level method will be required to do so; otherwise submit PMPs.
* 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.
* Finalize the District Consolidated TMDL Implementation Plan, and incorporate elements into District’s next MS4 Permit.
* 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).

* STAC/other partners assemble a workshop of experts to discuss the integration of analytical methods, target thresholds and investigation/remediation approaches to achieve consistency
* Develop a “white paper” based upon the outcome of the workshop (e.g. formation of an expert panel)
* Determine status of efforts to coordinate these processes at a national level and stay informed of/participate in those conversations

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* Develop maps to track locations where PCB TMDLs are active, under development, and needed
* 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)

5. Compile existing PCB outfall monitoring data for NPDES dischargers; develop systems to compile all info from governmental and academic organizations.

* Reasonable potential analysis during permit reviews includes PCBs
* 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).
* Compile an issue paper to describe the current state of monitoring and outline the roadblocks to enhancing those monitoring programs

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

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
* 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; )
* 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
* Collect data to identify sources and characterize contributions from those sources, including CSOs, MS4 outfalls, streams, and upstream contributions

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.

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* 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
* Provide information to TCW for potential GIS mapping on CERCLA NPL sites in the watershed that may be undergoing PCB remediation

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.

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
* Discuss potential PCB sources with TCW and TSCA (e.g., power plants, railroad maintenance yards, etc.)
* Identify locations of industries within the watershed that may be potential PCB sources
* Obtain information on PCB hotspot areas within the watershed and try to correlate CERCLA sites or other sites identified from above with those hotspots
* Use information and data generated from above to pre-screen and prioritize sites to determine whether further assessment is needed and by whom

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 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 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.

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* 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.

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

14. 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.

* CBC 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.

15. 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.

## MA2. Education and Awareness

## MA3. Voluntary Programs

## MA4. Science