Toxic Contaminant Policy and Prevention Outcome Quarterly Progress Summary

(Updated April 27, 2018)

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.

Lead and Supporting Goal Implementation Teams (GITs):

Water Quality – Toxic Contaminants Workgroup

Participating Partners:

Chesapeake Bay Watershed Agreement Signatories

- Maryland Department of the Environment
- Maryland Department of Natural Resources
- Virginia Department of Environmental Quality
- DC Department of the Environment
- Pennsylvania Department of Environmental Protection
- Delaware Department of Natural Resources and Environmental Control
- New York Department of Environmental Conservation
- West Virginia Department of Environmental Protection
- Chesapeake Bay Commission
- Federal Agencies: EPA, USGS, FWS, DHS, NOAA

Other Key Participants

- Non-Governmental Organizations (NGO)
- Private sector organizations
- Local government organizations
- Academic institutions
- CBP Water Quality Goal Implementation Team Workgroup

Overall Progress:

There is currently no data set available to use as a direct indicator for PCB levels in any environmental or human media. So progress is evaluated toward achieving actions in the work plan to carry out the management strategy.

Progress has been made in all four of the management approaches identified in the management strategy. In the 2-year work plan, we estimate that 30% of the items have been completed, 40% are still in progress, and the no progress was made on the remaining 30%

We have two other tools to help assess PCBs, (1) a story map and (2) an indicator of toxic contaminant impairments in tidal waters. Both are more fully described later in this document.

Review questions for the Outcome

What are our assumptions?

(1) What original assumptions did we make in our Management Strategy that we felt were important to our success?

a. What "Factors Influencing Success" were originally identified in your Management Strategy?

- Broad geographic extent and distribution of PCBs
- Political will to modify regulatory programs and/or create voluntary programs
- High cost of remedies and testing
- Variety of sources and pathways for PCBs entering the environment that necessitate a wide-range of different management responses
- Knowledge gaps on relative sizes of PCB sources
- Need to shift paradigm to acknowledge that there are ongoing sources of PCBs not static "legacy" contaminants

We propose a new factor be added: Need for a larger-scale forum to connect science and management and advance interstate collaboration and implementation of PCB TMDLs

b. What programmatic gaps that fail to address those factors did you originally identify in your Management Strategy?

Current efforts center on the excellent work by the jurisdictions to develop PCB TMDLs. The major rivers have or will have large-scale PCB TMDLs: multi-jurisdiction tidal Potomac in place; non-tidal Potomac under development; Conowingo Pool and Lower Susquehanna in development; James scheduled for development

c. What were the "Management Approaches" you chose to include in your Management Strategy and Two-Year Work Plan in order to address those gaps?

There are four management approaches: 1) Regulatory, 2) Education and Awareness, 3) Voluntary Programs, and 4) Science.

Are we doing what we said we would do?

(2) Are you on track to achieve your Outcome by the identified date?

a. What is your target? What does this target represent (e.g., the achievement we believed could be made within a particular timeframe; the achievement we believed would be necessary for an Outcome's intent to be satisfied; etc.)?

No specific environmental target for PCBs and no indicator of progress in reducing concentrations. For the work plan actions we estimate that – 30% complete; 40% in progress; 30% no progress.

We have two other tools to help assess PCBs, (1) a story map and (2) an indicator of toxic contaminant impairments in tidal waters. The PCB story map helps assess progress toward development and implementation of TMDLs for PCBs. The product shows the extent of PCB impairments throughout the watershed, with information on places where TMDLs are in place or under development. The final map shows where waters are impaired by PCBs but no TMDL has yet been considered. This will help focus management efforts in the future.

The chemical contaminants indicator provides a snapshot of where there are full or partial impairments of tidal waters from toxic contaminants. Currently about 80% of the tidal water segments have some type of contaminant impairment. This values has slowly increased over time but may be due to improved samples and not worsening conditions.

b. What is your anticipated deadline? What is your anticipated trajectory?

A deadline for environmental response is not determined. The output deadlines are recorded in the workplan.

c. What actual progress has been made thus far?

Environmental progress is unknown. For the work plan actions we estimate that – 30% complete; 40% in progress; 30% no progress.

d. What could explain any existing gap(s) between your actual progress and anticipated trajectory?

Environmental progress is unknown. For output based targets, the level of investment of resources to address this outcome.

(3) Which of your management actions have been the most critical to your progress thus far? Why? Indicate which influencing factors these actions were meant to manage.

The regulatory management approach has been most critical to the as-yet unknown improvements in reducing PCB contamination. However, the actions related to tracking and advancing the implementation of PCB TMDLs have gained significant visibility.

(4) Which of your management actions will be the most critical to your progress in the future? Why? What barriers must be removed—and how, and by whom—to allow these actions to be taken? Indicate which influencing factors these actions will be meant to manage.

The regulatory and the new proposed PCB Consortium management approaches will be most critical to future progress. The new PCB Consortium management approach addresses the "Broad geographic extent and distribution of PCBs" influencing factor.

Are our actions having the expected effect?

(5) What scientific, fiscal, or policy-related developments or lessons learned (if any) have changed your logic or assumptions (e.g., your recommended measure of progress; the factors you believe influence your ability to succeed; or the management actions you recommend taking) about your Outcome?

The primary policy-related lesson learned is that Toxic Contaminants Workgroup is not a sufficient platform to achieve the level of coordination and support needed to advance PCB TMDLs within the Bay watershed. A science-related lesson we do not have a coordinated monitoring program to assess changes in PCBs in the environmental as TMDLs and other management approaches are implements.
Another science-related lesson learned is that we lack air deposition and flux data for use in TMDL modeling.

How should we adapt?

(6) What (if anything) would you recommend changing about your management approach at this time? Will these changes lead you to add, edit, or remove content in your Work Plan? Explain.

The recommended addition of a fifth management approach to have a PCB Consortium to focus completely on the many PCB-related issues across the watershed. Currently, the TCW needs to focus needs of 2 outcomes and can't provide the attention needed to address PCBs.

(7) What opportunities exist to collaborate across GITs? Can we target conservation or restoration work to yield co-benefits that would address multiple factors or support multiple actions across Outcomes?
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Overall, we need to work more closely with the several workgroups in the WQ GIT to make greater progress on potential for PCB reductions. The primary work groups are (1) wastewater and (2) storm water. Some of the Cross-Outcome Projects being conducted include:

- BMP cross-benefit scoring and WIP III Fact Sheet
- Wastewater Workgroup – WWTP upgrade project
- Climate Resiliency Workgroup – Pilot for climate resiliency method
- Diversity Workgroup – EJ Screen demonstration for distribution of Fish Consumption Advisory infographic

(8) What is needed from the Management Board to continue or accelerate your progress? Multiple requests for action, support or assistance from the Management Board should be prioritized, where possible, and all requests should be "traceable" to the factors influencing progress toward your Outcome. Because a limited number of agencies and organizations are represented in the Management Board's membership, we recommend naming those agencies and/or organizations that may play a key role in fulfilling your request for action, support, or assistance, in order to guide the Management Board in its work to contact, consult, or coordinate with partners.

The primary request of the Management Board is to approve an **exploratory** effort to determine whether a **voluntary** PCB Consortium would: 1) Expedite the progress on current Policy and Prevention

Strategy to reduce PCBs, 2) Assist individual jurisdictions in developing and implementing PCB TMDLs, 3) Coordinate development and implementation of multi-jurisdictional PCB TMDLs, 4) Enhance the dissemination of academic and scientific research on PCBs, and 5) Be a watershed-wide resource for dissemination of best practices with respect to PCB trackdown, monitoring and measurement, and remedial activities, and (6) explore a coordinated monitoring effort to assess changes in PCBs as management actions are implemented. The PCB Consortium Exploratory Team members would ideally include a member from: 1) each Bay Partnership jurisdiction, 2) EPA Region III, 3) CBP federal agencies with a PCB interest (USGS), 4) academic institutions that conduct PCB research (UMBC, VIMS), 5) Anacostia and Baltimore Urban Watershed groups, and 6) interested NGOs.

The Toxic Contaminants Workgroup agrees that the concept of a PCB Consortium has potential validity and could add value to Bay watershed-wide efforts to reduce PCB contamination levels if jurisdiction- level resource constraints are kept in mind. The Workgroup also agrees with the fundamental premise that a PCB Consortium can fill a need for TMDL coordination at a scale commensurate with the wide distribution of PCBs in the watershed.

If the Management Board approves this exploratory effort, we envision a 3-step process:

1) Submittal of a charge for Exploratory Team and schedule at the June 14, 2018 Management Board meeting,
2) An initial request of Management Board members to voluntarily nominate a person with PCB and / or TMDL expertise to an Exploratory Team. Mindful of resource constraints, we envision a time commitment of no more than 4 hours per month for four months, starting in June, to flesh out the parameters of a PCB Consortium, and
3) Report the results of the Exploratory Committee back to the Management Board at the September 13, 2018 Management Board meeting.