

Toxic and Emerging Contaminants Management Strategy - Draft

This is a draft of the Toxic and Emerging Contaminants (TEC) subchapter for the Clean Water Goal Management Strategy. It was developed by TCW leadership, in consultation with PPoW leadership, from the draft challenges and management approaches shared with TCW members in mid-July 2026 and the Management Strategy worksheets completed by outcome leads in June 2026.

TCW will seek consent support at the September 9th TCW meeting for recommending to the CBP Clean Water Goal Team (CWGT) that this text is included in the TEC subchapter of the draft Clean Water Goal Management Strategy. This document will eventually be reviewed and approved by the CBP's Policy Steering Committee (cabinet secretaries).

Further details on what level of detail and other considerations should be used to guide Management Strategy development is provided in this [template](#). As you review this, please consider: Where do you see your or your signatory or organization's work fitting in? Are we missing anything that you see as a priority for adding value through partnership? Is there something in here that you do not see as value added? Are you able to commit your signatory or organization to specific workplan actions that will accomplish the management approaches, and are we missing anything that you would like to help implement?

Toxic and Emerging Contaminants Outcome: Reduce the amount and effect of toxic contaminants, such as PCBs, plastics, mercury and PFAS, on the waters, lands, fisheries, wildlife and communities of the Chesapeake Bay watershed through an increased understanding of their impacts and mitigation options.

- Promote information sharing between researchers, program managers and policymakers on the lessons learned, best practices and most up-to-date science, policy and communications around the toxic contaminants impacting the Chesapeake Bay watershed.

Baseline and Current Condition

Information Sharing

The Executive Council in its revised Toxic and Emerging Contaminants outcome language has prescribed a limited role for CBP regarding toxics mitigation because other existing state and federal toxics programs and partnerships already meet many of signatories' needs. Recognizing this limitation in needs, work within the partnership beyond 2025 will transition towards a value-added and strategic approach to disseminate information and connect researchers and practitioners. As of 2026, TCW hosts approximately 14 technical presentations a year and has an average of 33 attendees per meeting, representing various

federal and state agencies and academic and non-governmental organizations. Information sharing will be measured against this baseline and other metrics.

The Plastic Pollution Workgroup (formerly Plastic Pollution Action Team) has been leading the way in plastics research, mitigation, and implementation by researching its impacts into living resources and developing important research and monitoring strategies. The team has provided input on a framework for plastic monitoring strategies in the Bay, a monitoring strategy document for microplastics in the Bay, and an ecological risk assessment conceptual model for microplastics in the Potomac River. Transitioning from its focus on the Action Team's original charge, progress on information sharing related to plastics will be measured by the completion, adoption and implementation of these products and by similar metrics to TCW's convening.

Extent of toxic contaminants in the Chesapeake Bay watershed

In 2024, reported data for tidal waters in Delaware, Maryland, Virginia and the District of Columbia showed that 80% of the Chesapeake Bay's tidal segments are fully or partially impaired by toxic contaminants. These contaminants may include polychlorinated biphenyls (PCBs), metals, priority organics, per- and polyfluoroalkyl substances (PFAS) and unknown toxics, often resulting from industrial activities, agricultural runoff and urban pollution. Progress on the Toxic and Emerging Contaminants Outcome will be measured against this baseline from 2024 Integrated Reports, produced by jurisdictional partners under the federal Clean Water Act, as described via the indicator below.

Monitoring Progress and Indicators

Monitoring Progress: Information Sharing

An Indicator will not be used for this Target. The extent of information sharing between researchers, program managers and policymakers facilitated by CBP will be measured by presentations given, partners engaged at TCW and PPOW meetings, partners engaged through other venues, etc. This information will be shared in the annual Bay Barometer. Given the indirect, delayed impact of information sharing on actual reduction of toxic contaminants, measuring progress on information sharing will more directly reflect the work the partnership is doing to effect toxics reduction.

Indicator: Extent of toxic contaminants in the Chesapeake Bay watershed

Reductions in the amount and effect of toxic contaminants in the Chesapeake Bay watershed will be communicated through a distillation of the toxics-relevant portions of Integrated Reports developed by jurisdictions. This will be adapted from the previous Toxic Contaminants Policy & Prevention (TCPP) Indicator, with potential enhancements based on feedback from recent years, subject to capacity and workgroup interest. This indicator has and will continue to use as a data source jurisdictions' Integrated Reports required to be submitted biennially to EPA under sections 305(b) and 303(d) of the Clean Water Act. In addition, workgroup membership will explore indicator expansion to nontidal portions of the watershed to add value to the indicator for all signatories. Given the 2024 TCPP Indicator reported no change in toxic contaminant levels since 2014, and given that such a

measure is beyond the reach of TCW's direct influence, the new indicator will be updated less frequently at a yet to be determined periodicity.

Toxic & Emerging Contaminants Situation Analysis

	Within CBP's ability to influence	Outside of CBP's ability to influence
Challenges		
<u>Watershed-wide Status</u> : Communicating clearly a watershed-wide status of toxic contaminants when jurisdictions differ in their data and/or assessment methods.		x
<u>Sources Information Gap</u> : Limited understanding of the occurrence, concentrations and sources of toxic contaminants in different landscape settings.	x	
<u>Fish Consumption Information Gap</u> : Limited understanding of the effects of legacy and emerging contaminants on both ecological health and human health, through fish consumption.	x	
<u>Toxics Mitigation Practices and Co-benefits</u> : Limited information on the current best practices to mitigate contaminants, and the co-benefits of these practices on reducing nitrogen, phosphorus and sediment.	x	
<u>Emerging Contaminants Information Gap</u> : Fast pace of change and limited knowledge on emerging contaminant issues.	x	
<u>Plastics Information Gap</u> : Lack of studies from the organismal to ecosystem scale showing the impacts of plastic pollution.	x	
<u>Plastics Monitoring Gap</u> : Lack of repetitive system-wide survey of microplastics in the Chesapeake Bay watershed.	x	
<u>Plastics Resources Gap</u> : Lack of access to and expertise in instrumentation and laboratory resources. Lack of human capital and funding.	x	
<u>Relative Prioritization</u> : Resource constraints for conducting research and developing synthesis products on toxic contaminants. The opportunity cost of the relative emphasis on nutrients and sediment constrains efforts focused on toxic contaminants.		x
<u>Technical Network Connectivity</u> : Limited connectivity among groups hinders technical information transfer within the partnership and beyond.	x	

Snapshot of Signatory Programs

Managing a large and difficult restoration and conservation program with “no assurance about the level of funds that may be available beyond the short term” (GAO, 2028) is a challenging undertaking that requires individual and collaborative action from signatory partners, as well as the many communities and individuals who live, work, play and learn in our region. This “Snapshot of

Signatory Resources” seeks to better recognize the significant contribution that individual signatory partners and federal agencies make towards outcome attainment. The existing programs and funding spotlighted below are not intended to represent the full range of resources available or required to support progress towards outcome attainment; only the “biggest ticket” programs are included for each outcome and signatory partner. It is important to note that funding is reported from a single point in time (fiscal year 2025) and is not representative of future investments. Identifying the most critical programs and resources that exist at a particular moment in time can help the partnership focus its collaborative efforts on activities that have the greatest impact, and which don’t duplicate the work of existing programs.

[Placeholder: Signatory Name]

- [Placeholder: Featured Program with hyperlink] ([Appropriations for Fiscal Year 2025]) [one sentence max description of how program relates to Outcome attainment]

Management Approaches

Management Approach [2.2.1]: Share information on the occurrence, sources and effects of toxic contaminants, including emerging contaminants.

A limited understanding of the occurrence, sources and effects of toxic contaminants in different landscape settings continues to hinder efforts to target mitigation of those sources. TCW will host topical meetings to share the state of the science on contaminants of interest to TCW partners. The group will also continue to develop tools, reports and other materials, as interest and capacity allows, to communicate watershed-wide information on the state of toxic contaminants, including emerging contaminants of concern and contaminants in fish. This may include an update to the prior Toxic Contaminants Policy & Prevention Indicator Map, an assessment of fish consumption advisories, sharing results and lessons learned from source tracking studies, and an update to the publication [Toxic Contaminants in the Chesapeake Bay and its Watershed: Extent and Severity of Occurrence and Potential Biological Effects \(2012\)](#) to guide establishment of future toxic contaminant priorities.

Management Approach [2.2.2]: Synthesize and share research on the efficacy of mitigation practices and communicate the toxic contaminant reduction co-benefits of nutrient and sediment-focused best management practices.

To ensure the impact of information sharing is realized, improving partners’ understanding of mitigation practices is critical. TCW meetings will serve as a venue for sharing research on mitigation practices and success stories from jurisdictions to encourage the adoption of innovative and/or impactful practices. Through collaboration with other source sector workgroups in the Clean Water Goal Team, an emphasis will also be placed on sharing research on the co-benefits of best management practices to encourage the implementation of BMPs that provide the best reduction of toxic contaminants in addition to the reduction of nitrogen, phosphorus and sediment.

Management Approach [2.2.3]: Strengthen collaborative connections across the Chesapeake Bay Program and engage new partners and practitioners beyond CBWA signatories.

The strength of the Toxic Contaminants Workgroup and Plastic Pollution Workgroup is on their positioning as conveners of practitioners across the Chesapeake Bay watershed. To widen the visibility and impact of the two workgroups, a greater effort will be made to connect previously under-engaged groups by utilizing the existing network of members and interested parties to bring new people to meetings, attending events outside of workgroup meetings, and hosting joint meetings with other groups in the Chesapeake Bay Program as interest and resources allow.

Management Approach [2.2.4]: Support developing and instituting a plastics monitoring program for the Chesapeake Bay watershed

Develop a watershed-wide program to monitor the status and trends of plastic pollution including microplastics for the Chesapeake Bay watershed using CWA 117(e) funding and/or leveraging other funding sources. The [2024 Framework for Monitoring Plastic Pollution in the Chesapeake Bay](#) makes recommendations on monitoring strategies across various media and includes scale, frequency and location. The framework focuses on leveraging and integrating into existing programs to limit resources required.

Management Approach [2.2.5]: Continue to research and disseminate microplastic pollution findings to understand the threats of plastic pollution to the Chesapeake Bay and its resources.

Continue to develop research studies, for example, ecological risk assessments to understand threats of plastic pollution to resources. [The 2021 Microplastic Monitoring and Science Strategy](#) for the Chesapeake Bay recommended support for research to understand microplastic pathways in the Bay, including trophic pathways that may affect living resources such as Striped Bass, Blue Crabs, Oysters, and other species critical to the Bay ecosystem

Management Approach [2.2.6]: Identify and implement management solutions to reduce the occurrence of plastic pollution in the Chesapeake Bay watershed.

Adopt a plastic pollution source reduction strategy for the Chesapeake Bay and revise the strategy periodically based on results from monitoring and other scientific research.

Participating Partners

The following partners participated in the creation of this Management Strategy and expressed their intention to collaborate on Management Strategy implementation over the next six years. Per the Chesapeake Bay Watershed Agreement, “participation in developing Management Strategies or in the achievement of Outcomes varies by signatory based on differing priorities across the watershed. This participation may include commitments such as sharing knowledge, data or information, educating the public, working on future legislation and developing or implementing programs or verified practices” (2025). Signatory partners may join implementation efforts at any time. Partners also recognize that Signatory participation is voluntary and may vary accordingly.

- **Signatory Partners**
 - [Placeholder: Signatory Name]

- U.S. Environmental Protection Agency
 - U.S. Geological Survey
- **Other Partners**
 - [Placeholder: Partner/Agency/Organization Name]