

*Enhancing the Chesapeake Bay Program Monitoring Networks  
A Report to the Principals' Staff Committee*

## Overview

In March 2021, the Principals' Staff Committee (PSC) requested a study and recommendations on how to improve data collection capacity of core Chesapeake Bay Program (CBP) monitoring networks to enhance decision-support (i.e., Tidal Water Quality, Nontidal Water Quality, Submerged Aquatic Vegetation, Tidal benthic macroinvertebrates, Community Science, and Land Use Land Cover). The monitoring networks include (1) CBP core networks supported primarily by EPA CBP funding, and (2) partnership networks supported by multiple federal and state agencies. The monitoring review was guided by leadership from the CBP Scientific, Technical Assessment and Reporting (STAR) team, the CBP Monitoring Team, with input from the CBP Scientific and Technical Advisory Committee (STAC) leadership. A 4-part [report](#) was produced from the 18-month review.

## Report Outline

- Section 1: Chesapeake Bay Program Core Network Portfolio summaries
- Section 2: Monitoring needs for all 2014 Chesapeake Bay Agreement Goals and Outcomes
- Section 3: Partnership Opportunities to Enhance Chesapeake Bay Program Monitoring
- Section 4: Principals' Staff Committee Charge to the Monitoring Review Team and foundational network assessment results

## Key Findings

**1) Monitoring is critical to assess progress towards meeting goals and outcomes of the 2014 Watershed Agreement** Sustained and improved monitoring will allow the CBP partners to assess and evaluate progress from restoration and conservation efforts, while identifying gaps where more attention is needed in the future.

**2) Monitoring is insufficient for many CBP outcomes.** There is significant support for Bay and watershed resource monitoring, conducted by multiple CBP partners, which provides consistent information over time for tracking the status of, and progress towards about half of the 31 CBP Watershed Agreement outcomes. However, the review highlights a need for new investments to address significant gaps in providing decision-support for existing applications. This includes CBP's inability to meet all the monitoring requirements to fully assess the attainment of tidal water-quality standards associated with the Bay TMDL. Further, monitoring for the remaining CBP outcomes is insufficient and needs to be improved. Improvement is urgently needed by 2025 to achieve stated outcomes.

**3) Opportunities for enhancing the networks exist but funding is a challenge.** Funding is needed to maintain the integrity of existing monitoring networks, expand and enhance these networks, and invest in new monitoring opportunities that address critical gaps to assess progress toward meeting the targets of all CBP Watershed Agreement outcomes. Currently, the EPA and partners invest \$13M in the CBP core monitoring networks (Figure 1). The estimate to enhance the CBP core networks is \$5.4M in the first year (\$1.8M in capital costs and \$3.6M for operation and maintenance). Cost estimates of the recommendations were developed and provided as guidance and do not reflect endorsement of, or distribution to, any specific agency, institution, or depend on one type of equipment or supplier. Therefore, final costs for implementing any option could rise or fall subject to details within the final scope of work, sampling designs, awardee requirements, annual inflationary pressures, and more.

*Enhancing the Chesapeake Bay Program Monitoring Networks  
A Report to the Principals' Staff Committee*

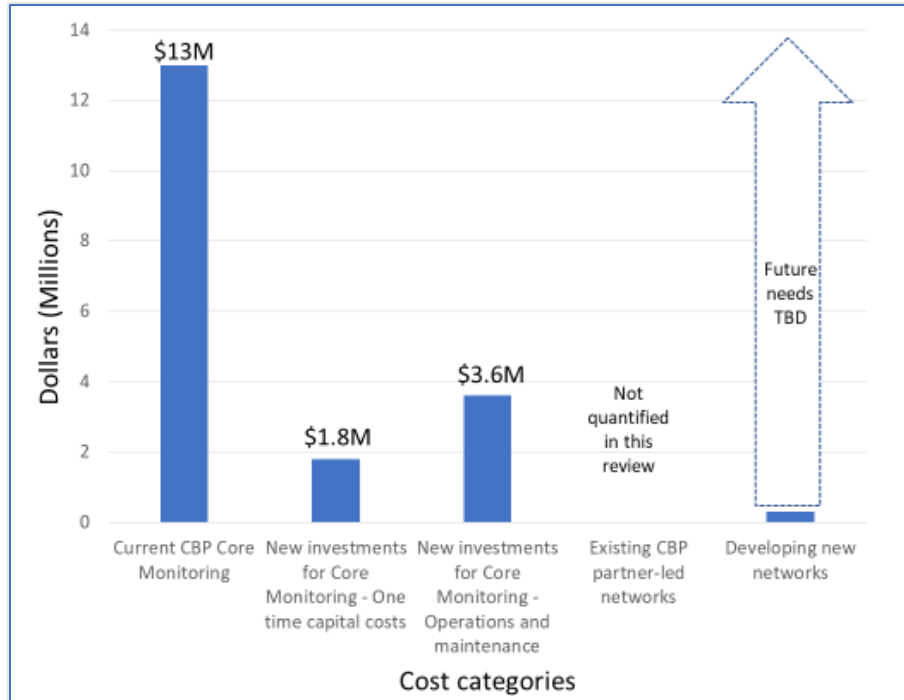


Figure 1. Current CBP funding and funding gaps identified to support development, maintenance, and enhanced monitoring programming to address assessment needs for outcome tracking under the 2014 Watershed Agreement.

Pursuing funds for monitoring investments will require a long-term, strategic effort of increased collaboration between federal, state, academic and local monitoring partners to successfully maintain and enhance existing networks, and develop, establish, and sustain new networks. The CBP partners are exploring using funding from the 2021 Bipartisan Infrastructure Law (BIL), and about \$1.5M of BIL funds has been identified for monitoring. However, the BIL funding is only available for 5 years. Therefore, the CBP partners have a challenge to increase monitoring capacity and associated resources to fill the funding gap over the next 5 years, and longer-term sources of funding that sustain the existing and new capacity.

## Moving Forward: Implementation Steps

The CBP plans to have an initial meeting of monitoring program managers in 2023 to

- 1) provide a review of report recommendations on the priority monitoring needs,
- 2) present the status of investment in addressing the recommendations, and
- 3) provide time for identifying opportunities for supporting monitoring investments that align with their interests, leading to actions that enhance data collection capacity of existing CBP core networks.

Continued discussions will be conducted at regular meetings organized through the STAR Integrated Monitoring Networks Workgroup (IMN WG). Establishing new monitoring networks to support outcomes in the Watershed Agreement lacking in sufficient data or coordination will likely require initial collaboration between the STAR IMN WG and the CBP workgroup responsible for assessing status and tracking progress toward achieving the outcome before presentation to program managers regarding any remaining gaps in their capacity support.