

The EPA Should Update Its Strategy, Goals, Deadlines, and Accountability Framework to Better Lead Chesapeake Bay Restoration Efforts

July 18, 2023 | Report No. 23-E-0023



Report Contributors: Bao Chuong
Gabby Fekete
Steve Hanna
Lauretta Joseph
Valerie Madas
Thane Thompson

Abbreviations:

CWA	Clean Water Act
EPA	U.S. Environmental Protection Agency
NPDES	National Pollutant Discharge Elimination System
OIG	Office of Inspector General
TMDL	Total Maximum Daily Load
WIP	Watershed Implementation Plan

Key Definitions:

Accountability Framework	The framework for holding Chesapeake Bay Program partners accountable for achieving Total Maximum Daily Load pollutant-reduction goals.
Nonpoint Source Pollution	Pollution caused by rainfall or snowmelt moving over or through the ground. As the runoff moves, it picks up and carries away pollutants, depositing them into rivers, lakes, wetlands, coastal waters, and groundwaters.
Point Source Pollution	Pollution that comes from a single place, such as a wastewater treatment plant, and is easy to identify.
Total Maximum Daily Load	A planning tool that provides the maximum amount of a particular pollutant that a waterway can receive and still meet applicable water quality standards.
Watershed Implementation Plan	A plan that details how a jurisdiction, in partnership with federal and local governments, will achieve Total Maximum Daily Load allocations.

Cover Image: Algae near the shore of Poplar Island on the Chesapeake Bay. (U.S. Fish and Wildlife Service photo)

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Office of Inspector General U.S. Environmental Protection Agency **At a Glance**

23-E-0023
July 18, 2023

The EPA Should Update Its Strategy, Goals, Deadlines, and Accountability Framework to Better Lead Chesapeake Bay Restoration Efforts

Why We Did This Evaluation

To accomplish this objective:

The U.S. Environmental Protection Agency Office of Inspector General conducted this evaluation to determine whether the EPA effectively uses its Accountability Framework for overseeing Chesapeake Bay Total Maximum Daily Load pollution-reduction goals.

The Chesapeake Bay is North America's largest and most biologically diverse estuary. Delaware, Maryland, New York, Pennsylvania, Virginia, West Virginia, and the District of Columbia are the seven government jurisdictions that participate in the Chesapeake Bay Program and are responsible for implementing programs to achieve the Chesapeake Bay Total Maximum Daily Load pollutant-reduction goals. The EPA is also a part of the partnership and oversees these efforts through the Accountability Framework.

To support these EPA mission-related efforts:

- *Ensuring clean and safe water.*
- *Compliance with the law.*
- *Partnering with states and other stakeholders.*

To address this top EPA [management challenge](#):

- *Enforcing compliance with environmental laws and regulations.*

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[List of OIG reports.](#)

What We Found

The Chesapeake Bay Program is not on track to have all controls and practices in place by 2025 to meet its Total Maximum Daily Load, or TMDL, for excess nutrients. Limitations in the EPA's regulatory authority under the Clean Water Act prevent the Agency from using federal actions to fully achieve TMDL pollutant-reduction goals. However, the EPA has not updated its pollution-reduction strategy or led the Chesapeake Bay jurisdictions in updating the 2025 goals and pollutant-reduction deadlines. While the EPA has assisted the program in achieving reductions for the portion of pollution covered by the TMDL that falls under the Clean Water Act regulatory authority, the EPA has not fully embraced its leadership role to steer the partnership toward addressing the most significant sources of remaining pollution covered by the TMDL, namely nonpoint source pollution like excess nutrients.

The EPA has not yet led Chesapeake Bay Program partners to adopt new goals or update deadlines that will more accurately reflect the time necessary to address the remaining sources of pollution covered by the TMDL. The Accountability Framework is reaching its capacity to reduce pollution covered by the TMDL through enforcement and compliance, and the EPA lacks a mechanism to hold jurisdictions accountable for achieving the nonpoint source pollution reductions necessary to meet the overall watershed TMDL because the Clean Water Act provides the EPA limited authority to regulate nonpoint source pollution. Without EPA assistance to address the remaining nonpoint source pollution, Agency leadership to develop new goals and deadlines, and implementation of a process to hold jurisdictions accountable for achieving nonpoint source pollution reductions, the EPA and Chesapeake Bay jurisdictions will not meet TMDL pollutant-reduction goals.

The EPA needs to shift its focus from point sources to nonpoint sources to achieve the necessary Chesapeake Bay TMDL pollutant-reduction goals.

Recommendations and Planned Agency Corrective Actions

We recommend that the regional administrator for Region 3:

1. Lead the Chesapeake Bay Program in developing a new approach to specifically address nonpoint source pollution.
2. Work with Chesapeake Bay Program partners to set new jurisdictional goals and a new deadline to have all pollution controls and practices in place to meet TMDL pollutant-reduction goals.
3. Work with Chesapeake Bay Program partners to develop an assurance mechanism to hold jurisdictions accountable for achieving nonpoint source pollution reductions.

The Agency did not concur with Recommendations 1 and 3 and provided suggested edits to these recommendations, which we did not accept. Therefore, Recommendations 1 and 3 are unresolved. The Agency concurred with Recommendation 2 and provided an estimated completion date of January 15, 2026. Recommendation 2 is resolved with corrective actions pending.



OFFICE OF INSPECTOR GENERAL
U.S. ENVIRONMENTAL PROTECTION AGENCY

July 18, 2023

MEMORANDUM

SUBJECT: The EPA Should Update Its Strategy, Goals, Deadlines, and Accountability Framework to Better Lead Chesapeake Bay Restoration Efforts
Report No. 23-E-0023

FROM: Sean W. O'Donnell, Inspector General 

TO: Adam Ortiz, Regional Administrator
Region 3

This is our report on the subject evaluation conducted by the U.S. Environmental Protection Agency Office of Inspector General. The project number for this evaluation was [OSRE-FY22-0139](#). This report contains findings that describe the problems the OIG has identified and corrective actions the OIG recommends. Final determinations on matters in this report will be made by EPA managers in accordance with established audit resolution procedures.

Region 3 is primarily responsible for the issues discussed in this report.

In accordance with EPA Manual 2750, your office provided an acceptable planned corrective action and estimated milestone date for Recommendation 2. This recommendation is resolved with corrective actions pending. A final response to this recommendation is not required; however, if you submit a response, it will be posted on the OIG's website, along with our memorandum commenting on your response.

Action Required

Recommendations 1 and 3 are unresolved. EPA Manual 2750 requires that recommendations be resolved promptly. Therefore, we request that the EPA provide us within 60 days its responses concerning specific actions in process or alternative corrective actions proposed on the recommendations. Your response will be posted on the OIG's website, along with our memorandum commenting on your response. Your response should be provided as an Adobe PDF file that complies with the accessibility requirements of section 508 of the Rehabilitation Act of 1973, as amended. The final response should not contain data that you do not want to be released to the public; if your response contains such data, you should identify the data for redaction or removal along with corresponding justification.

We will post this report to our website at www.epa.gov/oig.

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Purpose

The U.S. Environmental Protection Agency Office of Inspector General [initiated](#) this evaluation to determine whether the EPA effectively uses its Accountability Framework for overseeing Chesapeake Bay Total Maximum Daily Load, or TMDL, pollution-reduction goals.

Top Management Challenge Addressed

This evaluation addresses the following top management challenge for the Agency, as identified in the OIG's *U.S. Environmental Protection Agency Fiscal Year 2023 Top Management Challenges [report](#)*, issued October 28, 2022:

Background

The Chesapeake Bay is North America's largest and most biologically diverse estuary and provides the region with economic and recreational benefits. Home to more than 18 million people and 3,600 species of plants and animals, the Chesapeake Bay watershed covers about 64,000 square miles and includes parts of six states—Delaware, Maryland, New York, Pennsylvania, Virginia, and West Virginia—and the entire District of Columbia, as shown in Figure 1. A watershed is a geographic area in which water drains to a common outlet.

Pollution Sources and Impacts

The economic and recreational benefits of the Chesapeake Bay are at risk because most of the bay's waters are degraded by excess nutrients and sediments entering the bay. Appendix A explains how excess nutrients and sediments degrade the bay.

The EPA has two broad categories for sources of water pollution: point source and nonpoint source. Point source pollution comes from a single place, such as a wastewater treatment plant, and is easy to identify. Nonpoint source pollution is harder to identify and address, as it comes from many places all at once. Nonpoint source pollution is caused by rainfall or snowmelt moving over or through the ground. As the runoff moves, it picks up and carries natural and human-made pollutants, such as fertilizer, pet waste, and chemical contaminants, and deposits them into rivers, lakes, wetlands, coastal waters, and groundwaters.

Figure 1: Chesapeake Bay watershed



Source: The EPA. (EPA image)

Stakeholders in Chesapeake Bay Restoration

The Chesapeake Bay Program is a regional partnership of federal and state agencies, local governments, nonprofit organizations, and academic institutions. The Chesapeake Bay Program has coordinated the restoration of the Chesapeake Bay and its watershed since 1983.

As shown in Table 1, the principal program partners include:

- The states of Delaware, Maryland, New York, Pennsylvania, Virginia, and West Virginia.
- The District of Columbia.
- The Chesapeake Bay Commission. Established in the early 1980s, the commission serves as a state and federal congressional legislative voice for the Chesapeake Bay Program.
- The EPA, representing the federal government.

Table 1: Chesapeake Bay Program principal partners*

Jurisdictions	Chesapeake Bay Commission	The EPA
<p>Delaware, District of Columbia, Maryland, New York, Pennsylvania, Virginia, and West Virginia</p> 	<p>Tri-state legislative body that serves as the legislative voice for the Chesapeake Bay Program.</p> 	<p>Manages the Chesapeake Bay Program Office and provides additional oversight and support through Region 3's Enforcement and Compliance Assurance Division, Water Division, Office of Regional Counsel, and Office of the Regional Administrator.</p>

Source: OIG summary of EPA information. (EPA OIG image)

* Principal partners are the signatories of the 2014 Chesapeake Bay Watershed Agreement, the accord that outlines the framework by which the Chesapeake Bay Program operates. The Chesapeake Bay Program Office partners with other federal agencies, state agencies, local governments, academic institutions, and nongovernmental organizations.

The EPA manages some of its Chesapeake Bay Program actions through the Region 3 Chesapeake Bay Program Office. In addition to the EPA staff that work there, representatives of the other principal partners are collocated with EPA staff to engage in the work of the committees, goal implementation teams, workgroups, and action teams that comprise the entire Chesapeake Bay Program's effort. These committees, workgroups, and teams work under the Chesapeake Executive Council, which establishes policies for Chesapeake Bay restoration and protection. The Chesapeake Executive Council consists of the governors of the six watershed states, the mayor of the District of Columbia, the chair of the Chesapeake Bay Commission, and the EPA administrator. The EPA serves as the chair of both the Chesapeake Executive Council and its Principals' Staff Committee. According to the Chesapeake Bay Program, the Principals' Staff Committee works on behalf of the Chesapeake Executive Council to "translate the restoration vision into policy and implementation actions: accepting items for Council consideration and approval, setting agendas for Council meetings, providing briefings to the Watershed Agreement signatories and providing policy and program direction to the Management Board."

Executive Order for Chesapeake Bay Protection and Restoration

On May 12, 2009, President Barack Obama signed Executive Order 13508, *Chesapeake Bay Protection and Restoration*, directing multiple federal agencies, including the EPA, the U.S. Department of Agriculture, and the U.S. Department of the Interior, to work together to reduce pollution in the Chesapeake Bay. The executive order outlined an expectation of shared leadership, planning, and accountability, and it anticipated an active and ongoing leadership role for the EPA. According to the executive order, part of the EPA's responsibilities as chair of the Federal Leadership Committee was to

“manage the development of strategies and program plans for the watershed and ecosystem of the Chesapeake Bay and oversee their implementation.”

The executive order charged the Federal Leadership Committee to prepare recommendations that “[d]efine the next generation of tools and actions to restore water quality in the Chesapeake Bay and describe the changes to be made to regulations, programs, and policies to implement these actions.” The executive order further directed the EPA and the Federal Leadership Committee to prepare a strategy to guide efforts to protect and restore the Chesapeake Bay. Specifically, the strategy was to:

Federal Leadership Committee Under Executive Order 13508

The committee was established to oversee the development and coordination of programs and activities of agencies participating in the protection and restoration of the Chesapeake Bay. The committee is chaired by the EPA administrator and includes senior representatives of the Departments of Agriculture, Commerce, Defense, Homeland Security, the Interior, and Transportation.

- Define environmental goals and describe milestones for making progress toward goals.
- Identify key measurable indicators of environmental conditions that are critical to effective federal leadership.
- Describe the specific programs and strategies to be implemented.
- Identify the mechanisms that will assure that governmental and other activities, including data collection and distribution, are coordinated and effective.
- Describe a process for the implementation of adaptive management principles, including a periodic evaluation of protection and restoration activities.

The executive order outlines the federal government’s leadership role overall, specifically the EPA’s expected role as the leader of the effort to protect and restore the Chesapeake Bay watershed. The executive order also required that, beginning in 2010, the Federal Leadership Committee publish an annual Chesapeake Bay action plan and an annual progress report that includes a review of current environmental indicators, an assessment of the actions of the preceding year, and recommendations to improve progress in restoring and protecting the bay. The executive order expected that the strategies developed would also be flexible enough to respond to shifting environmental conditions and when progress was made toward restoration. The executive order also directed the EPA to identify the most cost-effective, sound, science-based pollution-reduction actions that provide measurable reductions and use innovative approaches, as well as actions that could be replicated to protect other bodies of water across the country.

Using Regulatory Authority to Address Nutrient and Sediment Pollution

The Agency and the Chesapeake Bay watershed region have used regulatory means to reduce nutrient and sediment pollution to the greatest extent practicable. From 2009 through 2021, about 79 percent of the nitrogen load reduction, 73 percent of the phosphorus load reduction, and 2 percent of the sediment load reduction came from point sources. The majority of the remaining nutrient load reductions came from nonpoint sources. While sediments come from both point and nonpoint sources, the majority of sediment pollution in the Chesapeake Bay comes from nonpoint sources.

The Clean Water Act, or CWA, amendments in 1987 added section 319 to explicitly address nonpoint source pollution through a cooperative, grant-based program with states. Among other provisions, the nonpoint source program was enacted to fund a variety of voluntary projects aimed at reducing

nonpoint source pollution. The U.S. Government Accountability Office outlined the need for nonpoint source load reduction in the nation’s waters in a series of reports. In a December 2013 report,¹ the Government Accountability Office recommended that the EPA develop and issue new regulations to require that TMDLs include additional elements and consider requiring elements that were optional to improve TMDLs’ efficacy. As of July 2022,² the EPA had not fully implemented that recommendation. Much of the nutrient load reductions in the Chesapeake Bay watershed have come from point sources because the cause of the pollution is easier to identify, and potential solutions are typically more straightforward to address than nonpoint sources. The EPA estimated that 20 percent of the total nitrogen load, 24 percent of total phosphorus, and 4 percent of total sediment are attributable to point sources and are therefore subject to federal regulation.

Chesapeake Bay Restoration Approach Through a TMDL

As a part of the EPA’s role to lead bay restoration efforts, on December 29, 2010, the EPA established the Chesapeake Bay Total Maximum Daily Load to restore clean water in the bay and the watershed’s rivers, streams, and creeks. A TMDL is a planning tool that provides the maximum amount of a particular pollutant that a waterway can receive and still meet applicable water quality standards. Reducing water pollution under a TMDL is one of many goals that the Chesapeake Bay Commission and the Chesapeake Bay Program agreed to work together to achieve. Table 2 shows the amount of nitrogen, phosphorus, and sediment that must be reduced from 2009 levels to achieve the TMDL. The EPA expected the jurisdictions to put controls and practices in place by 2017 to achieve 60 percent of the necessary TMDL pollutant reductions in Table 2. The overall TMDL pollutant-reduction goal is to ensure that all pollution control measures needed to fully restore the water quality in the Chesapeake Bay and its tidal rivers are in place by 2025. For the purposes of this report, we refer to this goal to as the *2025 goal*.

Pollutant Load
The amount of a pollutant that is carried by a waterbody within a particular time frame, such as 200 million pounds of nitrogen per year.

Table 2: Amount of nitrogen, phosphorus, and sediment that must be reduced from 2009 levels to achieve the TMDL (million pounds per year)

Jurisdiction	Nitrogen ^a	Phosphorus	Sediment
Delaware	2.30	0.024	24
District of Columbia	0.34	0	2
Maryland	11.78	0.474	0
New York	2.62	0.264	166
Pennsylvania	39.73	1.556	1,138
Virginia	14.96	1.402	0
West Virginia	0	0.198	0

Source: OIG summary of EPA information. (EPA OIG table)

^a In addition to the listed amount of nitrogen that must be reduced by each jurisdiction, atmospheric deposition of nitrogen to the watershed and the tidal water is expected to be reduced by 7.18 and 4.20 million pounds per year, respectively, under the Clean Air Act.

¹ GAO, *Clean Water Act: Changes Needed If Key EPA Program Is to Help Fulfill the Nation’s Water Quality Goals*, [GAO-14-80](#), December 2013.

² [GAO](#), *Priority Open Recommendations: Environmental Protection Agency*, July 1, 2022.

The EPA established the TMDL within existing authorities and requirements, including:

- The CWA and its implementing regulations.
- Judicial consent decrees requiring the EPA to address certain impaired Chesapeake Bay tributaries and waters.
- A settlement agreement that resolved litigation brought by an independent conservation organization dedicated to saving the Chesapeake Bay.
- The 2000 Chesapeake Agreement, which is an agreement among Maryland, Virginia, Pennsylvania, the District of Columbia, the EPA, and the Chesapeake Bay Commission, to meet the goal of “achieving and maintaining the water quality necessary to support the aquatic living resources of the Bay and its tributaries and to protect human health.”
- Executive Order 13508.

A restored Chesapeake Bay would ensure sustained economic benefits, including revenue generated from water recreation activities, national and international tourism, and seafood sales, all of which produce jobs and boost state and local economies. According to a peer-reviewed economic report issued by an independent conservation organization, the economic benefits of a fully restored Chesapeake Bay that meets TMDL pollutant-reduction goals are estimated to be \$129.7 billion annually.

Chesapeake Bay Program Accountability Framework

The Chesapeake Bay TMDL is implemented in part via an Accountability Framework designed to hold Chesapeake Bay Program partners accountable for achieving Chesapeake Bay TMDL pollutant-reduction goals. The EPA developed the TMDL Accountability Framework to “[i]mplement the reasonable assurance provisions of the Chesapeake Bay TMDL and pursuant to Section 117(g)(l) of the CWA, which directs the EPA administrator to ‘ensure that management plans are developed and implementation is begun.’”

The framework guides restoration efforts using four elements:

- **Watershed Implementation Plans.** Known as WIPs, these plans detail how the bay jurisdictions, in partnership with federal and local governments, will achieve the Chesapeake Bay TMDL allocations. TMDL wasteload allocations, which are pollutant allocations assigned to point sources, are generally implemented through the EPA’s National Pollutant Discharge Elimination System, or NPDES, permits under the CWA.³ Nonpoint source load reduction actions under a TMDL are implemented through a variety of state, local, and federal programs. Each bay jurisdiction committed to develop and implement a WIP. There were three phases of WIPs developed by the bay jurisdictions and submitted to the EPA for review. According to the EPA, the Phase I WIPs described how each bay jurisdiction would achieve the target allocations for nitrogen, phosphorus, and sediment by 2025, and these formed the majority of the basis for the allocations in the bay TMDL. The Phase II WIPs described the actions and controls to be implemented by 2017 to achieve water quality standards. The Phase III WIPs were developed

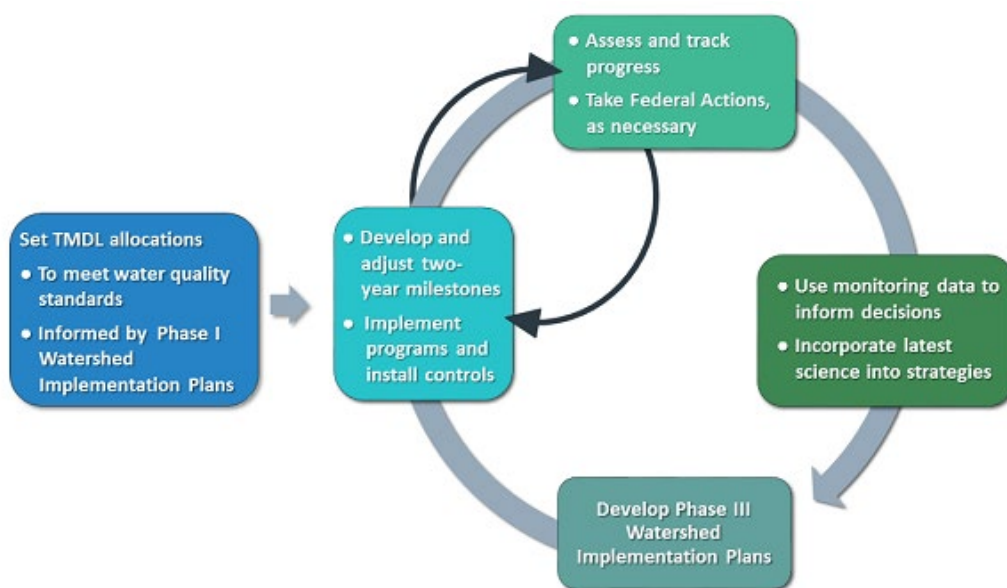
³ The NPDES permit program addresses water pollution by regulating point sources that discharge pollutants to waters of the United States. Created in 1972 by the CWA, the EPA authorizes state governments to perform many permitting, administrative, and enforcement aspects of the program.

based on a midpoint assessment that covered 2010–2017 and described the actions and controls to be implemented by 2025.

- **Two-year milestones to demonstrate restoration progress.** The EPA and bay jurisdictions agreed to develop two-year short-term goals, or milestones, to increase restoration work and ensure progress. The two-year milestones under the Chesapeake Bay TMDL began in 2012 and are expected to continue until the 2025 goal is met. By 2017, pollutant-reduction measures were expected to be in place to achieve 60 percent of the necessary pollutant reductions outlined in Table 2, but the Chesapeake Bay Program did not meet this goal for nitrogen. The program exceeded the goals for phosphorus and sediment.
- **EPA tracking and assessment of restoration progress.** The EPA tracks annual progress and publicly releases evaluations of each jurisdiction’s progress every two years.
- **Federal actions if jurisdictions do not meet milestones or goals.** If appropriate, the EPA has the authority under the CWA to take any of the following actions to ensure that jurisdictions meet milestones and goals:
 - Expand coverage of NPDES permits to unregulated resources.
 - Expand EPA oversight of state-issued NPDES permits and object to inadequate permits.
 - Require net improvement offsets for new or increasing pollutant loadings.
 - Establish finer scale wasteload and load allocations in the bay TMDL. The TMDL established a target for total load of a pollutant that the bay can assimilate and allocated the load to point sources, called the wasteload allocation, and nonpoint sources, called the load allocation.
 - Require additional load reductions from point sources.
 - Increase and target EPA enforcement and compliance assurance, including both air and water sources of nitrogen, phosphorus, and sediment.
 - Condition or redirect EPA grants based on demonstrated progress in meeting WIP nutrient or sediment load reductions.
 - Promulgate local nutrient water quality standards.

Figure 2 shows how the Accountability Framework process works to help the Chesapeake Bay Program achieve TMDL pollutant reductions.

Figure 2: Accountability Framework process



Source: The EPA. (EPA image)

Each time the EPA assessed the Phase I and Phase II WIPs, it determined whether the jurisdiction would achieve its goals on its own or whether the EPA needed to take additional actions to assist the jurisdiction in meeting its goals using three levels of increasing action. Under the lowest level, Ongoing Oversight, the EPA continues to monitor the jurisdiction's progress. Under next level, Enhanced Oversight, the EPA has identified specific concerns with meeting the 2025 goals and may identify one or more federal actions it may use to keep the jurisdiction on track. The highest level, Backstop Actions, indicates that the EPA has identified substantial concerns with a jurisdiction's implementation and that the Agency has taken federal actions to ensure the WIP stays on track. Appendix B provides more detail on WIP and midpoint evaluations.

Challenges to Achieving TMDL Pollutant Reductions

According to the EPA, the voluntary nature of the Chesapeake Bay Program, as well as the lack of meaningful authority over nonpoint sources in the CWA, are challenges to achieving the 2025 goals. While the EPA can use its authority under the CWA to apply the federal actions outlined in the Accountability Framework, the goals that are set by the Chesapeake Bay Program are not legally enforceable. EPA managers believe that the Agency must balance and judiciously apply its enforcement authority in tandem with technical assistance and program support, as well as identify opportunities to leverage federal partner resources. The EPA stated that its goal is to work in a way that helps each jurisdiction most effectively reduce the overall volume of TMDL nutrient and sediment pollution flowing into the Chesapeake Bay.

Further, each jurisdiction in the Chesapeake Bay watershed faces unique challenges to achieving TMDL pollutant reductions. The District of Columbia has no identifiable agriculture but is still required to address pollution from point sources and stormwater management under the TMDL. Delaware, New York, and West Virginia have smaller geographical areas that fall within the watershed, but they must still engage in planning, WIP submission and implementation, and milestone tracking with the same effort and attention as the jurisdictions with much larger areas.

Maryland, Pennsylvania, and Virginia are required to manage significant areas of the watershed, which include hundreds of concentrated animal feeding operations, thousands of commercial farms, and tens of thousands of small holdings and animal feeding operations that fall below the regulatory threshold of the CWA. Pennsylvania alone has more than 30,000 small, mostly nonfederally regulated farms and dairies that produce a majority of the state's pollution that enters the bay. According to the EPA, animal feeding operations are agricultural operations where animals are kept and raised in confined situations. Animal feeding operations that meet the regulatory definition of a concentrated animal feeding operation are regulated under the NPDES permitting program. The NPDES program regulates the discharge of pollutants from point sources to waters of the United States. Concentrated animal feeding operations are point sources, as defined by the CWA.

Nutrients and sediments trapped by the Conowingo Dam in Maryland represent a significant challenge for the jurisdictions. This potential pollution will impact the overall Chesapeake Bay Watershed TMDL pollutant-reduction goals as the dam fails to trap additional nutrients and sediment. New York, Pennsylvania, and Maryland are responsible for managing the Conowingo Dam watershed and have submitted a WIP for it, but the EPA was not confident that the jurisdictions will achieve the WIP's goals because of a lack of dedicated funding and firm commitments to support implementation of the necessary practices and controls by 2025.

The Conowingo Dam

In Maryland, the Conowingo Dam has acted as a trap for nutrients and sediments flowing downstream to the Chesapeake Bay. When the Chesapeake Bay TMDL was established in 2010, it was thought that the dam's reservoir would not be filled until after 2025 when the watershed should have already met the TMDL pollutant-reduction goals. Since 2010, research has shown that the dam was losing its capacity to trap nutrients and sediments and greater amounts were flowing into the Chesapeake Bay, compounding the challenges the jurisdiction must address to meet the 2025 goal.

Responsible Offices

The Chesapeake Bay Program is supported by the EPA through the Region 3 Chesapeake Bay Program Office. The Chesapeake Bay Program Office, Region 3's Water Division and Enforcement and Compliance Assurance Division, and Region 2 are responsible for reviewing WIPs and two-year milestone commitments for the Chesapeake Bay, as well as overseeing progress on WIP and two-year milestone implementation. The Office of Regional Counsel in Regions 2 and 3 review the EPA's evaluations to ensure any statements made are in line with relevant legal authorities. The Chesapeake Bay Program Office and Region 3's Water Division, Office of Regional Counsel, and Enforcement and Compliance Assurance Division collectively decide whether to take federal actions when a jurisdiction does not meet milestones or goals. Region 2 is the lead for matters related to New York, and the Chesapeake Bay Program Office provides technical support to Region 2.

The EPA headquarters' Office of Water provides grant money to states, territories, and tribes for nonpoint source implementation projects, under CWA section 319 grants, and ongoing water pollution control programs, under CWA section 106 grants. The Office of Water also provides states, territories, and tribes with loans to fund water quality infrastructure projects, including nonpoint source pollution control.

The EPA's annual enacted budget for fiscal year 2022 was about \$9.5 billion. The fiscal year 2022 budgets for the Region 3 Chesapeake Bay Program Office, which includes allocations for the Water Division and Enforcement and Compliance Assurance Division, and the Office of Water for the

partnership jurisdictions were \$135.6 million and \$252.4 million respectively, for a combined total of \$388 million or 4.1 percent of the EPA's total budget.

Scope and Methodology

We conducted this evaluation from June 2022 to March 2023 in accordance with the *Quality Standards for Inspection and Evaluation* published in December 2020 by the Council of the Inspectors General on Integrity and Efficiency. Those standards require that we perform the evaluation to obtain sufficient and appropriate evidence to support our findings.

To understand the EPA's approach to restoring the Chesapeake Bay's water quality, we reviewed:

- Executive Order 13508.
- Chesapeake Bay TMDL.
- Chesapeake Bay Watershed Agreement 2014, amended January 24, 2020.
- CWA, as amended.

We reviewed the EPA's evaluations of each jurisdiction's WIPs and two-year milestone commitments and progress from 2009 through 2022 and the EPA's evaluations of each jurisdiction's submissions to assess implementation. To understand how the EPA evaluates WIPs, two-year milestone commitments, and progress, we reviewed the Accountability Framework and evaluation procedures, including elements that must be addressed in the jurisdiction's WIPs. We interviewed managers and staff in the Chesapeake Bay Program Office and Region 3's Water Division, Enforcement and Compliance Assurance Division, and Office of Regional Counsel to learn how they evaluate WIPs, two-year milestone commitments, and progress. We reviewed the federal actions that the EPA has taken or not taken when a jurisdiction fails to meet milestones or goals. We also followed up with managers and staff in the Chesapeake Bay Program Office; Region 3's Water Division, Enforcement and Compliance Assurance Division, and Office of Regional Counsel; and Region 2's Water Division and Office of Regional Counsel to better understand why the EPA has taken or not taken certain federal actions.

We assessed whether the EPA effectively used the Accountability Framework by determining whether the Agency used two of the four elements for which it has responsibility and all eight federal actions, considering their feasibility. We also communicated with an independent conservation organization to gather its perspective on how the EPA uses the Accountability Framework to ensure jurisdictions implement their WIPs and two-year milestone commitments.

Results

The Chesapeake Bay Program is not on track to reach the 2025 goals for nitrogen and phosphorus. Limitations in the EPA's regulatory authority under the CWA prevent the Agency from using federal actions to fully achieve the Chesapeake Bay TMDL pollutant-reduction goals, but the EPA has not updated its pollution-reduction strategy or led the Chesapeake Bay jurisdictions in updating the TMDL pollutant-reduction goals and deadlines. While the EPA has assisted the partnership in achieving reductions for the portion of pollution covered by the TMDL that falls under CWA regulatory authority, which is point source pollution, the EPA has not fully embraced its leadership role to steer the partnership toward addressing the most significant sources of remaining pollution covered by the TMDL, namely nonpoint source pollution. The EPA has also not led Chesapeake Bay Program partners in

developing new goals and deadlines that will more accurately reflect the time necessary to address the remaining sources of pollution covered by the TMDL. In addition, because the Accountability Framework is reaching its capacity to reduce point source pollution through enforcement and compliance, the EPA lacks an assurance mechanism that will hold jurisdictions accountable for achieving the nonpoint source pollution reductions necessary to meet the overall watershed TMDL. Without EPA assistance to address the remaining nonpoint source pollution, Agency leadership in developing new goals and deadlines, and a process to hold jurisdictions accountable for achieving nonpoint source pollution reductions, the EPA and Chesapeake Bay jurisdictions will not meet TMDL pollutant-reduction goals.

The EPA's Limited CWA Authority Prevents the Use of Federal Actions to Fully Achieve TMDL Pollutant-Reduction Goals

Limitations in the EPA's CWA regulatory authority prevent the Agency from fully achieving the TMDL pollutant-reduction goals through federal regulatory actions alone. Section 319 of the CWA is the main mechanism by which the Act directly addresses nonpoint source pollution, and it primarily assigns to states the authority to identify and regulate nonpoint source pollution. The EPA's role under section 319 is generally limited to approving or disapproving states' nonpoint source assessment reports and management plans, providing technical assistance, and awarding grant funds. While the EPA can use CWA authority to address point source pollution, the CWA does not give the EPA significant authority to take federal actions when jurisdictions do not meet the nonpoint source milestones or TMDL pollutant-reduction goals. Nonpoint sources also encompass a majority of the remaining TMDL pollutant sources in the Chesapeake Bay. For example, water runoff that drains from a farm and carries TMDL pollutants into rivers and other waterbodies is not federally regulated. Similarly, urban and suburban stormwater runoff that flows over land and deposits TMDL pollutants directly into local waterbodies without passing through a municipal storm sewer system is also unregulated by the EPA. As a result, most of the remaining TMDL pollutant reductions in the watershed must be achieved through additional nonpoint source reductions efforts that are incorporated into each jurisdiction's WIP.

Because the EPA is limited in its authority to regulate nonpoint sources of pollution by the CWA, the Agency cannot use federal actions beyond those in the Accountability Framework. However, the EPA chose not to use four of the eight federal actions available to it under the Accountability Framework. Table 3 describes the four federal actions not used by the EPA.

Table 3: The four federal actions not used under the Accountability Framework

Federal actions not used by the EPA	Description of federal action
Require net improvement offsets for new or increasing pollutant loadings.	Provides a permittee the ability to offset any new or increased nutrient loading by more than its anticipated load. The bay TMDL states that new or increased sources may be offset in the future through a trading program that jurisdictions establish. Not all jurisdictions' trading programs require net improvement offsets.
Establish finer-scale wasteload and load allocations than in the December 2010 Chesapeake Bay TMDL.	Review the wasteload allocations of nutrients given to point sources and the load allocations to nonpoint sources in the bay TMDL and establish more specific allocations than those set out in the bay TMDL.
Require additional reductions of loadings from point sources. Revising the final December 2010 Chesapeake Bay TMDL to reallocate additional load reductions from nonpoint to point sources.	Review the wasteload allocations of nutrients given to point sources and the load allocations to nonpoint sources in the TMDL and reallocate required reductions from nonpoint sources to point sources.
Federal promulgation of local nutrient water quality standards.	Require the EPA to gather data to analyze whether a jurisdiction's narrative water quality criteria are consistent with the CWA. If the data supports it, the EPA could decide that a revised standard is necessary to meet the requirements of the CWA, which would allow the EPA to promulgate federal numeric nutrient water quality standards for the jurisdiction.

Source: OIG summary of EPA information. (EPA OIG table)

The EPA identified the eight federal actions specified in the CWA and included them in the Accountability Framework in response to the Chesapeake Bay Program partners asking what consequences the EPA may impose if jurisdictions were not effectively implementing their WIPs. The EPA said that it chose not to use four of those federal actions because it determined from its analysis that, in some cases, taking these actions would require significant resources but would not produce significant TMDL reductions. Based on our review of that analysis and our discussions with the EPA, we agree with the Agency's assessment. Other challenges identified by the EPA's analysis showed that some of the actions could take decades to fully implement or risk setting national regulatory precedents that could increase the likelihood of litigation.

When appropriate, the EPA has used four of the eight federal actions when regulated point sources within a jurisdiction were not on track to meet milestones, including:

- Expanding coverage of NPDES permits to unregulated sources.
- Expanding EPA oversight review of state-issued NPDES permits and objection to inadequate permits.
- Increasing and targeting EPA enforcement and compliance assurance, including both air and water sources of nitrogen, phosphorus, and sediment.
- Conditioning or redirecting EPA grants based on demonstrated progress in meeting WIP nutrient or sediment load reductions.

The seven jurisdictions have each submitted their Phase I, Phase II, and Phase III WIPs; two-year milestone commitments; and annual load reduction progress information to the EPA. The EPA evaluated the WIPs and publicly released its evaluations. In addition, the EPA tracked annual progress and publicly

released its evaluations of each jurisdiction’s progress biannually, including their two-year milestone commitments.

Chesapeake Bay Program Is Not on Track to Meet the 2025 Goal for Nutrients and Needs a New Strategy

According to the EPA, not all jurisdictions have consistently achieved the TMDL pollution controls and practices outlined in the WIPs and two-year milestone commitments. From 2010 through 2017, at least four of the seven jurisdictions in the Chesapeake Bay Program had one or more source sectors or programs where the EPA needed to implement Enhanced Oversight or take Backstop Actions. As outlined above, Enhanced Oversight occurs if the EPA has identified specific concerns with a jurisdiction’s implementation of strategies to meet the TMDL pollutant-reduction goals. The EPA may then take additional federal actions to ensure that the jurisdiction stays on track. Backstop Actions occur if the EPA has identified substantial concerns with a jurisdiction’s actions to meet the TMDL pollutant-reduction goals. The EPA then takes federal actions to help the jurisdiction get back on track. Pennsylvania was identified as needing consistent Backstop Actions or Enhanced Oversight in the agriculture and urban/suburban stormwater source sectors based on the EPA’s evaluation of the state’s initial WIP submission in 2010 and two-year milestone commitments and progress from 2013 through 2018.

Despite the federal actions taken under the Accountability Framework to address point sources, according to Chesapeake Bay Program Office data, the Chesapeake Bay Program as a whole is not on track to meet the 2025 goal for nutrients. To be on track, pollution controls and practices should have been in place to achieve 80 percent of the needed nutrient and sediment load reductions by 2021. As of 2021, the EPA estimated that the Chesapeake Bay Program had reduced nitrogen by 49 percent, phosphorous by 64 percent, and sediment by 100 percent of the TMDL pollutant-reduction goals. Some jurisdictions reduced sediment more than required, which led to the Chesapeake Bay Program as a whole to achieve the sediment reduction goal. Best management practices are in place to achieve sediment load reductions but not to achieve nitrogen and phosphorus load reductions.

Among the seven jurisdictions, Pennsylvania is the furthest from reaching the TMDL pollutant-reduction goals, meeting less than 50 percent of the TMDL reduction goals for all three pollutants. As of 2021, the District of Columbia achieved the TMDL reduction goals as shown in Table 4, the only jurisdiction to have done so. West Virginia has already achieved its 2025 goals for nitrogen and sediment and is estimated to achieve its goal for phosphorus by 2025. The remaining five jurisdictions are not on track to meet the 2025 goals.

Table 4: Percent of TMDL pollutant-reduction goals achieved in 2021

Jurisdiction	Nitrogen	Phosphorus	Sediment
Delaware	20%	52%	63%
District of Columbia	100%	100%	100%
Maryland	58%	74%	100%
New York	69%	76%	21%
Pennsylvania	22%	48%	45%
Virginia	75%	68%	100%
West Virginia	100%	97%	100%

Source: OIG summary of EPA information. (EPA OIG table)

Given that five of the seven jurisdictions are not on track to meet the TMDL pollutant-reduction goals, the EPA needs to lead the Chesapeake Bay Program in developing a new strategy to address:

- Nonpoint sources, which are the largest sources of nutrient pollution to the Chesapeake Bay that remain, given that load reductions have come mostly from point sources. Based on EPA estimates, about 80 percent of the nitrogen load, 76 percent of phosphorus load, and 96 percent of sediment load are attributable to nonpoint sources. Despite the large share of nutrient pollution attributed to nonpoint sources, just 18 percent of the nitrogen load reduction and 27 percent of the phosphorus load reduction have come from nonpoint sources from 2009 through 2021.
- Nutrients and sediments trapped by the Conowingo Dam.
- The slowdown in achieving the 2025 goals due to various factors, including growth and development; land use changes; increases in agricultural activity, such as more crops and animals; and higher rainfall because of climate change leading to increased runoff.

Executive Order 13508 provided the EPA with a leadership role in Chesapeake Bay restoration, stating that the federal government leads the restoration efforts. Section 201 of the executive order appointed the EPA to lead the Federal Leadership Committee for the Chesapeake Bay.

As part of the leadership role outlined for the EPA under the executive order and the subsequent Chesapeake Bay TMDL, the EPA developed the Accountability Framework shown in Figure 2 to provide “reasonable assurance” that the TMDL’s intended pollution reductions will be achieved. Furthermore, according to Executive Order 13508 section 301, the original strategy that the EPA was responsible for developing expected the EPA administrator to apply “adaptive management principles” and adopt “innovative and cost-effective pollution control measures” that can be “replicated in efforts to protect other bodies of water” and that “build on the strengths and expertise of Federal, State, and local governments, the private sector, and citizen organizations.”

The Chesapeake Bay Program has not adopted a new strategy to address the most significant sources of pollution covered by the TMDL that remain in the watershed or to address the slowdown in TMDL pollutant reductions that have occurred because of various factors, including climate change. The EPA has had data since 2018 indicating that the Chesapeake Bay Program was not on track to have all controls and practices in place by 2025, but the EPA has not yet convinced the jurisdictions to shift their TMDL reduction priorities from point to nonpoint sources. Without actively leading the Chesapeake Bay Program towards developing strategies and plans that adequately address nonpoint sources, the EPA will not fulfill its expected leadership role and risks not meeting TMDL pollutant-reduction goals to restore the Chesapeake Bay.

The EPA Lacks an Effective Assurance Mechanism for Achieving Nonpoint Source Pollution Reductions and Needs New Goals and a New Deadline for Meeting the TMDL

Nearly 40 years after the Chesapeake Bay Program was established, the bay’s water quality remains degraded. Missing the 2025 goal to have all controls and practices in place will delay meeting water quality standards. A significant cause of missing this goal is that the EPA lacks an effective assurance mechanism to hold jurisdictions accountable for achieving the nonpoint source pollution reductions necessary to meet the overall watershed TMDL. The EPA continues to rely on the strategy, processes,

and assurance mechanisms that the Chesapeake Bay Program originally developed when TMDL pollutant-reduction efforts began in 2009. That strategy and those policy mechanisms are less effective now that the EPA has worked with jurisdictions to successfully reduce pollution from point sources covered by the TMDL. The EPA has not revised or updated the Accountability Framework since it was originally implemented in 2010. This is partly because nonpoint sources remain the largest remaining source of pollution covered by the TMDL and nonpoint source pollution is not regulated by the CWA. Further, according to the EPA, continuing to focus on additional inspections of or enforcement against point sources that are already permitted will not yield a lot of additional reductions.

However, section 7 of the Chesapeake Bay TMDL document discusses the methods and policies the EPA has put in place to provide “reasonable assurance that the load allocations (LAs) will be achieved and water quality standards (WQS) will be attained.” Specifically, in section 7.1.1, the TMDL document stated the following regarding reasonable assurance for nonpoint source load reductions:

For the Chesapeake Bay TMDL, reasonable assurance that nonpoint source load reductions will be achieved is based, in large part, on the new accountability framework EPA is developing for this TMDL, including the Bay jurisdictions’ watershed implementation plans (WIPs). This framework incorporates an adaptive management approach that documents implementation actions, assesses progress, and determines the need for alternative management measures based on the feedback of the accountability framework.

While section 7 specifically outlines the EPA’s reliance on nonpoint source pollution reductions to achieve the source load reductions necessary to reach the TMDL pollutant-reduction goals, the ongoing challenges in reaching nonpoint source reduction milestones demonstrate the need for the EPA to develop a more effective assurance mechanism for achieving these reductions.

The EPA has not used its leadership role under Executive Order 13508 to move the Chesapeake Bay Program toward developing new goals and identifying a new deadline to have all controls and practices in place to achieve water quality standards, even though five of the seven jurisdictions are not on track to have all controls and practices in place by 2025. Although the Chesapeake Bay Program has initiated discussions on a new deadline, the jurisdictions have not developed new goals or agreed to an updated deadline. If the EPA does not use its leadership role in the Chesapeake Bay Program to set new goals and a new deadline to meet the TMDL pollutant-reduction goals, the Chesapeake Bay Program will be ill-prepared to continue pollution-reduction efforts beyond 2025.

Given its authority and as the chair of the Chesapeake Executive Council and its Principals’ Staff Committee, the EPA is expected to take a leadership role in helping Chesapeake Bay Program partners in achieving their TMDL pollutant-reduction goals. In doing that, the EPA should consider:

- The challenges described above to using four of the eight federal actions if the EPA chooses to make significant changes to the Accountability Framework.
- The absence of an effective assurance mechanism to hold jurisdictions accountable for addressing nonpoint source pollution. Based on the authority provided to the EPA under the CWA, the system currently relies entirely on voluntary actions.
- A way to guide the Chesapeake Bay Program in adopting an assurance mechanism for nonpoint source reductions and the development of a new strategy with new goals and a new deadline.

While the EPA has been aware as early as 2018 that the 2025 goals would likely not be met, the Agency has not led the Chesapeake Bay Program to adopt revised TMDL pollutant-reduction goals or the timeline for achieving those reductions. Without an updated and improved assurance mechanism for increasing nonpoint source pollution reductions, the Chesapeake Bay Program will not meet its overall TMDL pollutant-reduction goals and will not meet the accountability expectations of the 2010 Chesapeake Bay TMDL.

Recommendations

We recommend that the regional administrator for Region 3:

1. Lead the Chesapeake Bay Program in developing a new strategy to specifically address nonpoint source pollution.
2. Lead the Chesapeake Bay Program in setting new jurisdictional goals and a new deadline to have all pollution controls and practices in place to meet Total Maximum Daily Load pollutant-reduction goals.
3. Lead the Chesapeake Bay Program in developing an effective assurance mechanism to ensure that nonpoint source load reductions will be achieved by jurisdictions under the Chesapeake Bay Total Maximum Daily Load.

Agency Response and OIG Assessment

Appendix C contains the Agency's response to our draft report. The Agency also provided technical comments, which we considered as we finalized this report.

The Agency did not concur with Recommendations 1 and 3 and offered edits to reflect the voluntary nature of the Chesapeake Bay Program and the EPA's authority under the CWA for nonpoint sources of pollution. We do not accept these edits because our recommendations specifically state that the regional administrator should *lead* the Chesapeake Bay Program, a role that is consistent with both Executive Order 13508 and the voluntary nature of the program. Furthermore, while we agree that the partnership structure of the Chesapeake Bay Program necessitates coordination and agreement among the parties, the suggested edits to Recommendation 3 did not meet our intent, since the edits did not commit the program to developing an assurance mechanism. Therefore, Recommendations 1 and 3 are unresolved. We have revised Recommendation 3 by adding clarifying language to describe what an effective assurance mechanism means in response to a technical comment suggesting that the draft recommendation was vague.

The Agency concurred with Recommendation 2. The Chesapeake Bay Program's Principals' Staff Committee expects to deliver recommendations for potential changes, which could include a new target date to have all controls and practices in place, to the Chesapeake Executive Council in late 2024. The Chesapeake Bay Program is also working on the Phase 7 suite of modeling tools, which should be ready in 2028 and will be used by the partnership to inform decisions related to nutrient and sediment reduction goals outlined in the Chesapeake Bay Watershed Agreement. The Agency plans to report to the OIG on the decisions of the Chesapeake Bay Program with respect to Recommendation 2 by January 15, 2026. As such, Recommendation 2 is resolved with corrective actions pending.

Status of Recommendations

RECOMMENDATIONS

Rec. No.	Page No.	Subject	Status ¹	Action Official	Planned Completion Date
1	15	Lead the Chesapeake Bay Program in developing a new strategy to specifically address nonpoint source pollution.	U	Regional Administrator for Region 3	
2	15	Lead the Chesapeake Bay Program in setting new jurisdictional goals and a new deadline to have all pollution controls and practices in place to meet Total Maximum Daily Load pollutant-reduction goals.	R	Regional Administrator for Region 3	1/15/26
3	15	Lead the Chesapeake Bay Program in developing an effective assurance mechanism to ensure that nonpoint source load reductions will be achieved by jurisdictions under the Chesapeake Bay Total Maximum Daily Load.	U	Regional Administrator for Region 3	

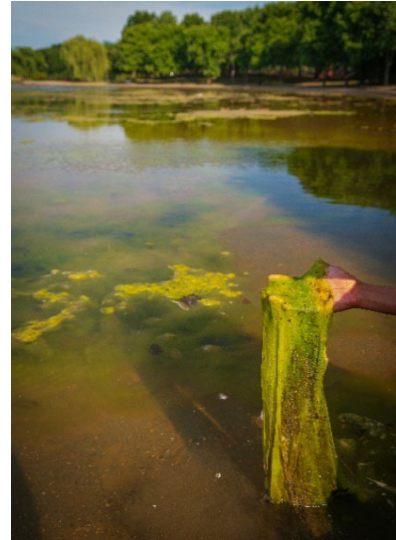
¹ C = Corrective action completed.
 R = Recommendation resolved with corrective action pending.
 U = Recommendation unresolved with resolution efforts in progress.

Description of Nutrient and Sediment Pollution

Excess nutrients and sediments are major contributors to the poor health of the Chesapeake Bay:

- Nutrients—primarily nitrogen and phosphorus—are needed for the growth of all living organisms in the Chesapeake Bay. However, excess nutrients fuel the growth of algal blooms. Algal blooms, as shown in Figure A-1, block sunlight to underwater grasses and create low-oxygen dead zones when the algae die. Underwater grasses are a critical part of the Chesapeake Bay ecosystem, as they provide food and habitat to wildlife and add oxygen to the water. Most of the excess nutrients come from agricultural fertilizer and animal waste runoff, poorly managed wastewater and septic systems, and overfertilization of urban and suburban lawns. Air sources contribute about one-third of the total nitrogen loads to the Chesapeake Bay by depositing nitrogen oxides onto the tidal surface waters of the bay and watershed.
- Sediment refers to loose sand, clay, silt, and other soil particles that settle at the bottom of a body of water. According to the EPA, scientists estimate that most of the sediment that flows into the Chesapeake Bay comes from land being cleared of vegetation to make way for agriculture and development. Excess sediments in the bay turns the water cloudy, blocking sunlight from reaching underwater grasses. Bottom-dwelling species, such as oysters, can be smothered when that sediment settles at the bottom of the bay.

Figure A-1: Algae in a pond



Source: The EPA. (EPA image)

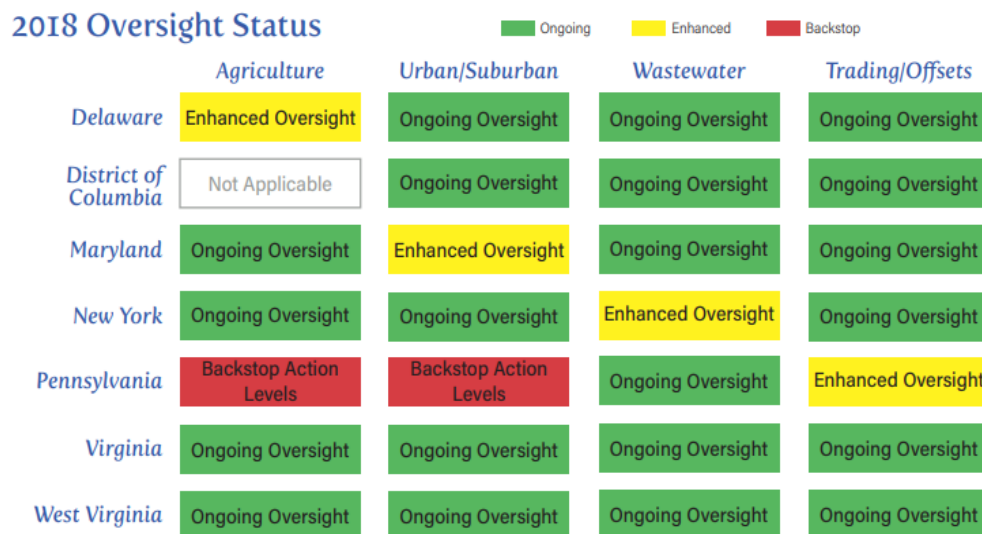
WIP and Midpoint Evaluations

The EPA’s evaluations of the Phase I WIPs, Phase II WIPs, two-year milestone commitments submitted for 2012 through 2017, and milestone progress from 2009 through 2017 included an assessment of three pollutant source sectors—agriculture, urban/suburban stormwater, and wastewater—as well as the trading/offsets program, which allows one source to meet its regulatory obligations by using pollutant reductions created by another source with lower pollution controls. Based on its evaluations, the EPA rated each jurisdiction as either:

- **Ongoing Oversight.** The EPA will continue to monitor the jurisdiction’s progress.
- **Enhanced Oversight.** Having identified specific concerns with a jurisdiction’s implementation of strategies to meet the TMDL pollutant-reduction goals, the EPA may take additional federal actions to ensure the jurisdiction stays on track.
- **Backstop Actions.** Having identified substantial concerns with a jurisdiction’s actions to meet the TMDL pollutant-reduction goals, the EPA has taken federal actions to help the jurisdiction get back on track.

In addition to reviewing each jurisdiction’s progress in reaching the two-year milestones, the EPA developed a midpoint assessment, finalized in 2018, to determine progress in meeting pollution-reduction milestones. These data reflected the point between the implementation of the TMDL in 2010 and the anticipated achievement of those TMDL pollutant-reduction goals in 2025. Figure B-1 shows the results of that midpoint assessment.

Figure B-1: The EPA’s 2018 midpoint assessment of TMDL milestone achievements



Source: 2018 Midpoint Assessment of the Chesapeake Bay Total Maximum Daily Load. (EPA image)

According to EPA personnel, the EPA revised the way it rated the pollutant source sectors or the trading/offsets program for the Phase III WIP evaluations and subsequent evaluations of milestone commitments and progress in 2017. However, the EPA provided a generic statement on the Agency’s

oversight and the types of assistance it could provide to support a jurisdiction's implementation of its Phase III WIP. This statement in the evaluations did not list any of the eight actions under the Accountability Framework that the EPA could take and noted that the evaluation is not enforceable by law.

Agency Response to Draft Report



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
Four Penn Center
1600 John F Kennedy Blvd.
Philadelphia, PA 19103-2852

May 15, 2023

MEMORANDUM

SUBJECT: EPA Comments to the Draft Report:
 The EPA should Update its Strategy, Goals, Deadline and Accountability Framework to Better Lead Chesapeake Bay Restoration Efforts
 Project No. OSRE-FY22-0139

TO: Steve Hanna, Acting Director
 Programs, Offices, and Centers Oversight Directorate
 Office of Special Review and Evaluation
 EPA Office of Inspector General

FROM: Adam Ortiz, Regional Administrator
 EPA MidAtlantic Region (Region 3) **ADAM ORTIZ** Digitally signed by ADAM ORTIZ
 Date: 2023.05.15 15:31:45
 -04'00'

Thank you for the opportunity to review the Office of Inspector General (OIG) Draft Report, “The EPA should Update its Strategy, Goals, Deadline and Accountability Framework to Better Lead Chesapeake Bay Restoration Efforts.” (Project No. OSRE-FY22-0139). The EPA appreciates the interaction with OIG staff throughout this process, and we believe the Draft Report reflects the challenges that the Chesapeake Bay Program partnership faces in meeting the 2025 water quality goals.

Proposed Corrections

Most of our proposed corrections address clarifications of the legal nuances of EPA’s authority within the Chesapeake Bay Program (CBP) partnership, as well as some factual corrections. The corrections are intended to accurately characterize the partnership, the functions of the various partners, and EPA’s role in the partnership.

The CBP partnership is a complex program, which is built on voluntary participation by its members and operates via a consensus-based decision-making structure. The EPA’s roles in the CBP partnership are described in Clean Water Act Section 117. This section calls for EPA to

maintain an office to provide support to the Chesapeake Executive Council, which EPA does via the Region 3 Chesapeake Bay Program Office (CBPO). EPA supports the CBP partnership through various actions including funding, staffing, coordination, and leadership. As a member of the CBP partnership, EPA is a partner, not a regulator.

We have identified a set of global issues with the report that we have set forth below for your consideration. The identified items are inaccurate and/or have the potential to mislead or confuse the public or other readers of the OIG report.

- The Draft Report references throughout “the 2025 TMDL pollution reduction goals.” In 2010, EPA established the Total Maximum Daily Load (TMDL) for the Chesapeake Bay (“Bay TMDL”), which identified the necessary reductions of nitrogen, phosphorus and sediment across Delaware, Maryland, New York, Pennsylvania, Virginia, West Virginia and the District of Columbia to meet applicable water quality standards in the Bay and its tidal rivers and embayments. The CBP partnership established the goal of having all practices in place by 2025 to improve water quality in the Bay prior to the establishment of the Bay TMDL. The TMDL acknowledged the 2025 goal but the goal itself is not part of the TMDL, so it is more appropriate to refer to the 2025 goal separately from the TMDL allocations. Please make this correction throughout the document.
- We believe the characterization of the accountability framework in the Draft Report is not entirely accurate and should be clarified. EPA developed the accountability framework in collaboration with the state jurisdictions and larger partnership prior to the establishment of the Bay TMDL. EPA did not develop the framework to provide reasonable assurance as that term of art is used in Clean Water Act regulations regarding TMDLs. The accountability framework supports the Bay TMDL versus the Bay TMDL being “under” the accountability framework. Additionally, implementation of two of the four elements under the accountability framework – the Watershed Implementation Plans and the two-year milestones – are primarily the responsibilities of the state jurisdictions and not EPA, though EPA does play a role in evaluating these WIPs and milestones and providing feedback to the state jurisdictions.
- We recommend that the OIG acknowledge limitations in EPA’s Clean Water Act authority with respect to nonpoint sources. The Clean Water Act’s system of cooperative federalism gives states the primary authority over nonpoint sources. The Clean Water Act does not give EPA significant authority over nonpoint sources. Because of these limitations, the Chesapeake Bay jurisdictions have created and repeatedly updated Watershed Implementation Plans, and they continue to develop two-year milestones to evaluate and document project accomplishment. These Watershed Implementation Plans include Best Management Practices (BMPs) for reductions of pollutants from nonpoint sources and provide data on implementation of BMPs by point and nonpoint sources. While EPA has limited authority to regulate these practices, the publicly available evaluations add accountability and help EPA to determine appropriate responses.

- The Draft Report references the overall EPA budget; however, we believe it is more meaningful and germane to provide information regarding federal funds available specifically to the CBP partnership. The Chesapeake Bay Restoration Spending Crosscut Report to Congress, compiled annually by the Office of Management and Budget, provides the most accurate EPA budget amounts since national program funding awarded to Chesapeake Bay watershed states is pro-rated by the percent of the state within the watershed.
 - EPA’s fiscal year 2022 budget for the Region 3 CBPO (which includes allocations for the Water Division and the Enforcement and Compliance Assurance Division), was \$88,000,000, and Office of Water (OW) programs (including Sec. 319, S. 106, and the State Revolving Funds) was \$110,100,000 for a combined total of \$198,100,000.
 - The fiscal year 2022 Infrastructure Investment and Jobs Act funding for CBPO was \$47,600,000 and the above-referenced OW programs was \$142,300,000 for a combined total of \$189,900,000.

In addition, it should be recognized that the jurisdictions invest significant state resources in non-point source programs to meet the goals and outcomes of the Chesapeake Bay Watershed Agreement. In fiscal year 2022, jurisdictions reported investing an estimated \$1 billion in watershed restoration through state programs.

Response to Recommendations

EPA concurs with the three recommendations with suggested edits and have already begun progress and actions on these recommendations. These edits are necessary to reflect the voluntary nature of the CBP partnership and EPA’s authority under the Clean Water Act for nonpoint sources of pollution. As a program that continues to be voluntarily entered into by signatories to a non-binding partnership agreement, EPA does not have full authority to enact and require actions. By January 15, 2026, EPA Region 3 will report to the OIG on the three actions below with a statement describing the CBP partnership’s decisions on these issues.

1. Developing a new strategy to specifically address nonpoint source pollution.

Suggested revision: Leading the development of a new strategy to specifically address nonpoint source pollution in coordination with the CBP partnership.

Response: EPA concurs with this recommendation with suggested edits. The Executive Council charged the CBP partnership with evaluating what is needed to increase the pace of implementation between now and 2025, and how existing and new challenges can be addressed beyond 2025 – particularly in the agricultural sector. As part of this evaluation, the CBP partnership will examine (re)prioritizing the goals and outcomes under the 2014 Chesapeake Bay Watershed Agreement, including establishing new deadlines. EPA, as current chair of the Executive Council and Principals’ Staff Committee, will continue to engage the partnership in

work to both address reaching goals by 2025 and planning a path forward beyond 2025. While the CBP partnership has not decided whether to enter into a new Bay Watershed agreement, the 2014 Chesapeake Bay Watershed Agreement, as amended in 2020, continues to serve as the guiding document for the partnership.

While EPA has limited Clean Water Act authorities in regulating or managing nonpoint sources, EPA expects to continue providing significant technical and financial assistance to support the jurisdictions' efforts (including specific programs, initiatives, and partnerships) in reducing nonpoint sources of pollutants, particularly in the agricultural and urban/suburban stormwater sectors. Most of the jurisdictions expect to achieve a significant portion of their respective nutrient reductions from the agricultural sector and, as such, EPA, in collaboration with the partnership, will continue to identify ways to accelerate progress in this sector.

2. Setting new jurisdictional goals and a new deadline to have all pollution controls and practices in place to meet the Total Maximum Daily Load pollution reduction goals.

Response: EPA concurs with this recommendation, though it should be understood that EPA alone does not have authority to simply “set” goals or target dates; as described above, this is done by the CBP partnership overall. EPA will continue active engagement in the CBP partnership's efforts to revisit the existing target date for achieving the water quality goals (as well as other goals and outcomes under the 2014 Chesapeake Bay Watershed Agreement). The CBP partnership's Principals' Staff Committee expects to deliver recommendations for potential changes, which could include a new target date, to the Executive Council in late 2024.

The CBP partnership has taken an ongoing adaptive management approach to restoring Bay water quality, by continually incorporating new information and the best available science into its revised planning targets (done for Phase II and Phase III prior to the Bay jurisdictions developing those Phases of WIPs) and updating its suite of modeling tools. To that end, the CBP partnership is currently working on the Phase 7 suite of modeling tools, which should be ready in 2028.

3. Developing an effective assurance mechanism to hold jurisdictions accountable for achieving nonpoint source pollution reductions.

Suggested revision: Leading, in collaboration with the seven Bay jurisdictions, an exploration of potential different or additional accountability mechanisms that might be available for achieving nonpoint source reductions.

Response: EPA concurs with this recommendation with suggested edits. The Clean Water Act's system of cooperative federalism gives states the primary authority over nonpoint sources. The Clean Water Act does not give EPA significant authority over nonpoint sources. The list of potential federal actions in the accountability framework already includes actions regarding what little authority over nonpoint sources that we do have, such as grants and funding, and potential

designation as point sources. EPA can lead, in collaboration with the seven Bay jurisdictions, an exploration of potential different or additional accountability mechanisms that might be available beyond what is currently reflected in the Accountability Framework.

Thank you once again for the Draft Report and the Office of Special Review and Evaluation's time and attention to this important program. We plan to incorporate the recommendations into our future steps as we work within the CBP partnership toward reaching the partnership's 2025 goals and paving a meaningful path forward.

Attachments

Distribution

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