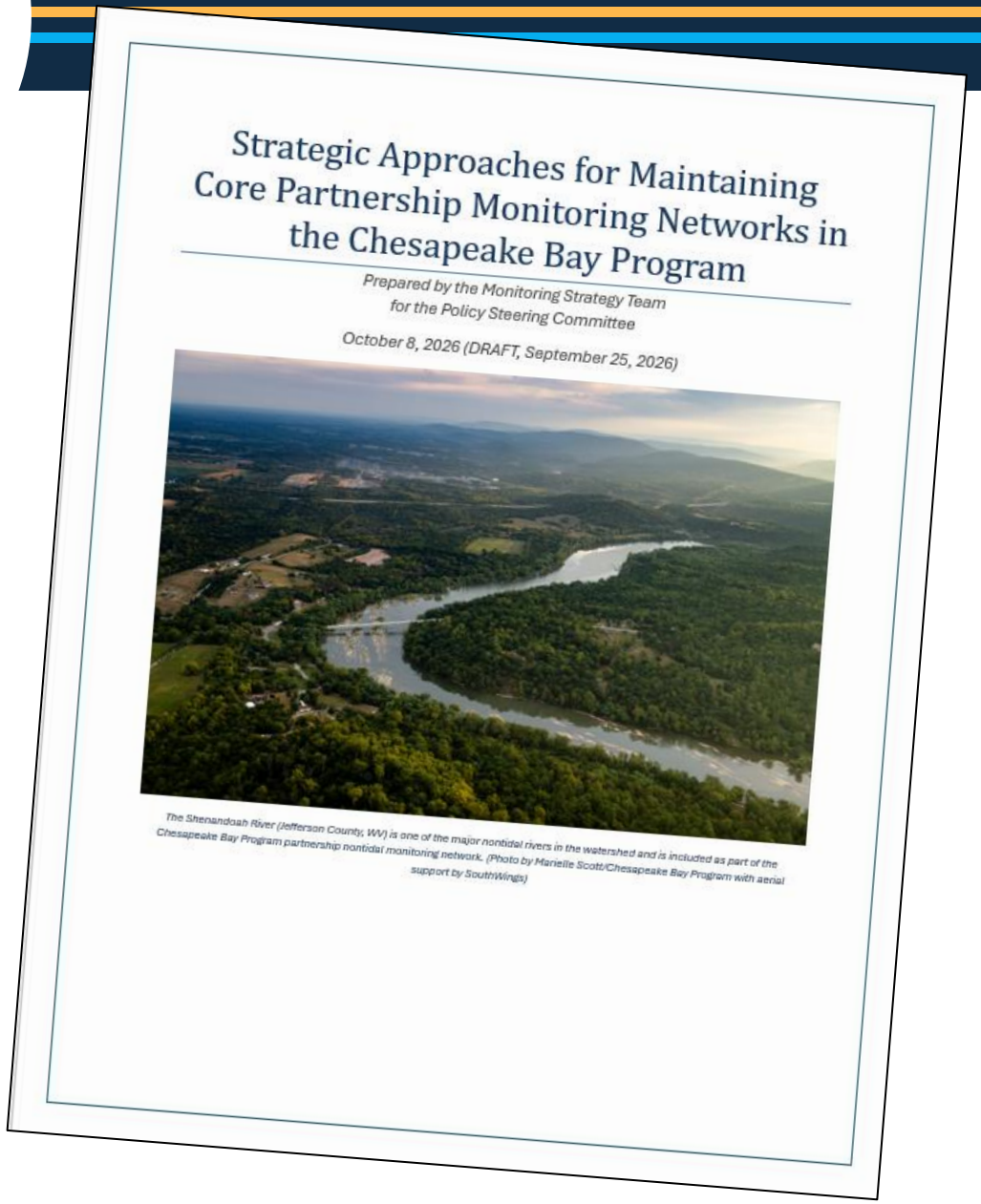
Chesapeake Bay Program
Science. Restoration. Partnership.

October 8, 2026

Briefing for Members of the Policy Steering Committee on the Monitoring Strategy Team Report



PSC Charge – June 2024

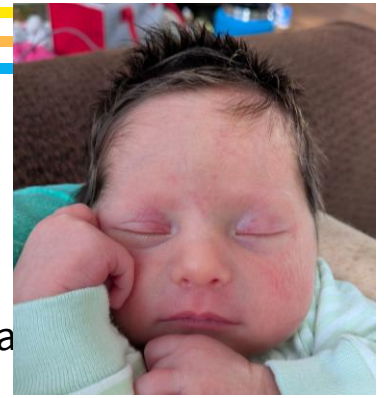
Develop a Funding Strategy Team that addresses vulnerabilities and protects investments in partnership monitoring networks, through collaboration, assessment, and partner coordination*

**Operationally, the group has referred to itself as the Monitoring Strategy Team*

Members of the Team

- **Cassie Davis, New York State Department of Environmental Conservation**
- Vivian Dickson, Natural Resources Conservation Service
- Melissa Fagan, Chesapeake Research Consortium
- Kaylyn Gootman, Chesapeake Bay Program/Environmental Protection Agency
- Christi Hicks, Natural Resources Conservation Service
- Ken Hyer, Chesapeake Bay Program/United States Geological Survey
- **Anna Killius, Chesapeake Bay Commission**
- **Lee McDonnell, Chesapeake Bay Program/ Environmental Protection Agency**
- **Sandra Mueller, Virgina Department of Environmental Quality**
- **Tom Parham, Maryland Department of Natural Resources**
- **Molly Pulket, Pennsylvania Department of Environmental Protection**
- **Scott Settle, West Virginia Department of Environmental Protection**
- Kevin Schabow, Chesapeake Bay Program/National Oceanic and Atmospheric Administration
- Breck Sullivan, Chesapeake Bay Program/United States Geological Survey
- Peter Tango, Chesapeake Bay Program/United States Geological Survey
- Kasey Taylor, Natural Resources Conservation Service
- Bryant Thomas, Virgina Department of Environmental Quality
- Bruce Vogt, Chesapeake Bay Program/National Oceanic and Atmospheric Administration
- **Holly Walker, Delaware Department of Natural Resources and Environmental Control**
- **Cathy Wazniak, Maryland Department of Natural Resources**
- Allison Welch, Chesapeake Bay Program/Chesapeake Research Consortium
- **Jill Whitcomb, Pennsylvania Department of Environmental Protection**

Substituting today for Kaylyn….



- **Cassie Davis, New York State Department of Environmental Conservation**
- Vivian Dickson, Natural Resources Conservation Service
- Melissa Fagan, Chesapeake Research Consortium
- Kaylyn Gootman, Chesapeake Bay Program/Environmental Protection Agency
- Christi Hicks, Natural Resources Conservation Service
- Ken Hyer, Chesapeake Bay Program/United States Geological Survey
- **Anna Killius, Chesapeake Bay Commission**
- **Lee McDonnell, Chesapeake Bay Program/ Environmental Protection Agency**
- **Sandra Mueller, Virgina Department of Environmental Quality**
- **Tom Parham, Maryland Department of Natural Resources**
- **Molly Pulket, Pennsylvania Department of Environmental Protection**
- **Scott Settle, West Virginia Department of Environmental Protection**
- Kevin Schabow, Chesapeake Bay Progra and Atmospheric Administration
- Breck Sullivan, Chesapeake Bay Program/United States Geological Survey
- Peter Tango, Chesapeake Bay Program/United States Geological Survey
- Kasey Taylor, Natural Resources Conservation Service
- Bryant Thomas, Virgina Department of Environmental Quality
- Bruce Vogt, Chesapeake Bay Program/National Oceanic and Atmospheric Administration
- **Holly Walker, Delaware Department of Natural Resources and Environmental Control**
- **Cathy Wazniak, Maryland Department of Natural Resources**
- Allison Welch, Chesapeake Bay Program/Chesapeake Research Consortium
- **Jill Whitcomb, Pennsylvania Department of Environmental Protection**

Monitoring Strategy Team Role

Updated from the June 2024 PSC Meeting

- While EPA secured funding to maintain core monitoring through FY 2026, the Monitoring Strategy Team will help inform efforts to maintain four core monitoring networks beyond 2026 without a loss of monitoring capacity

- The role of the team included:
  - Understanding the partnership's current monitoring networks.
  - Describing the key role each monitoring network plays.
  - Estimating current partnership monitoring vulnerabilities, including the post-September 2027 impact when the partnership has fully used all IIJA and supplemental funding.
  - Ensuring that partnership monitoring networks remain aligned with the 2025 Chesapeake Bay Watershed Agreement.
  - **Identifying strategies to sustain core partnership monitoring networks through continued federal, state, academic and local collaboration.**

Aligning the Team, Our Role, and the Report

The PSC Charge focused our role to explore how we preserve the capacity of the monitoring networks

- Programmatically translates to how do we maintain the networks without monitoring losses

The Team selection was informed by the PSC Charge and our role

- Built the report with programmatic experts who could speak to the partnership monitoring networks and vulnerabilities, not technical experts

Targeted writing a report that was concise (~ 30 pages) and accessible for the PSC and our partners

Deliverables



Report

Charge, Purpose, and Membership

Health of Chesapeake Bay Program partnership monitoring

Characterizes partnership monitoring vulnerabilities

Provides information that can used for strategic planning



Monitoring Strategies

Work with the full Monitoring Strategy Team to produce strategies to maintain priority monitoring networks

Final Section of the Report



Monitoring Network One Pagers

Factsheets on each of the four core monitoring networks

Figure 1: Chesapeake Bay Program partnership core monitoring networks.

Note that the Tidal Water Quality network has two distinct components

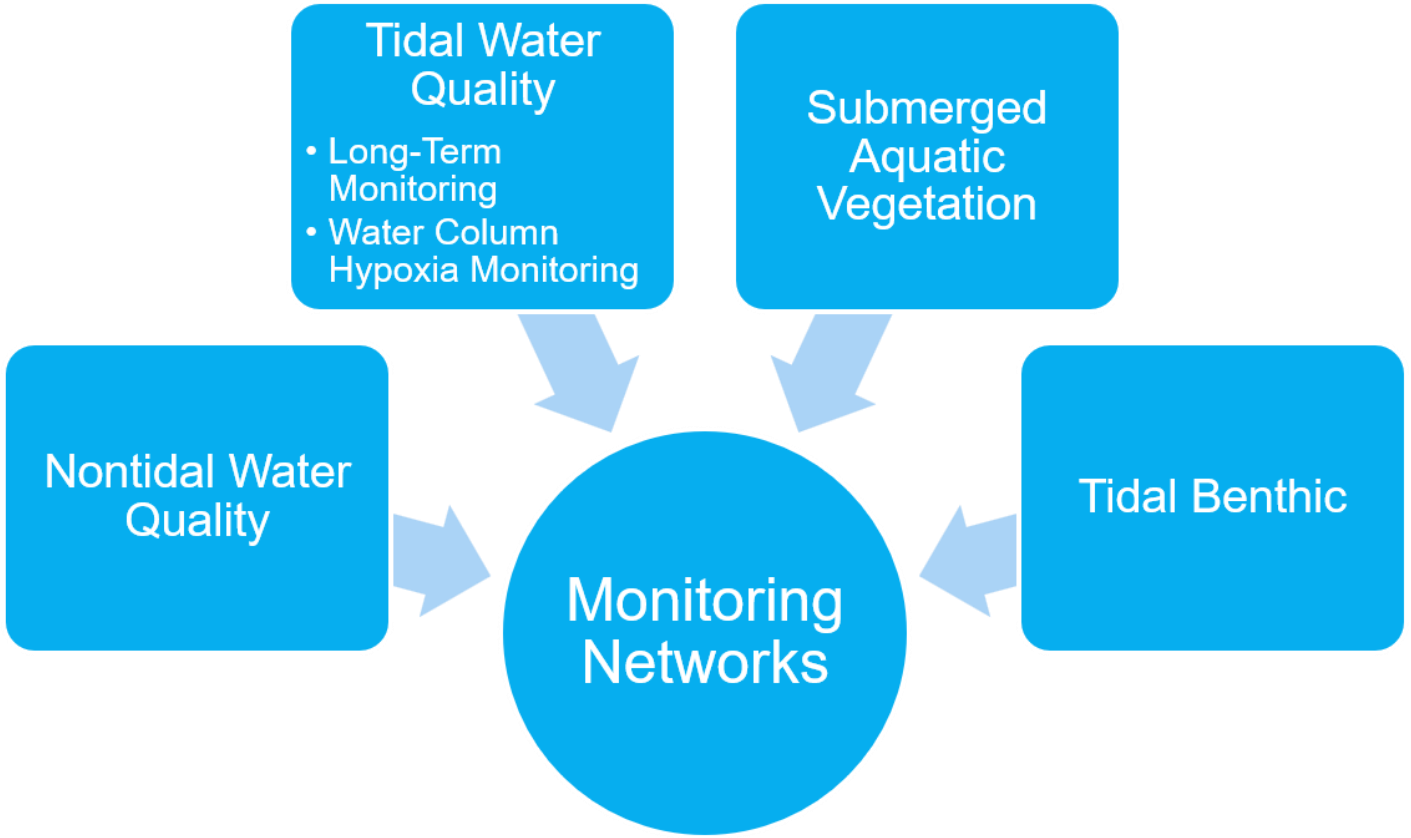


Table 2

Summary of the four core partnership monitoring networks.

Note that the Tidal Water Quality network has two distinct components

Network	What It Does	Why It's Essential	Who Is Involved
Nontidal Water Quality	Measures nitrogen, phosphorus, and sediment across 123 river stations; monthly and stormflow sampling; provides nutrient and sediment loads/trends every two years.	Identifies nutrient and sediment delivery patterns; supports watershed modeling inputs, informs restoration and management decisions directly tied to the Bay TMDL for nutrients and sediment, and Watershed Agreement.	25 partner entities; 7 field-sampling partners; USGS leads analysis.
Tidal Water Quality – Long-Term Monitoring Network	Collects physical, chemical, and biological samples at 156 tidal stations that are sampled 1–2 times per month, continuous shallow water monitoring sites, and longitudinal surveys.	Supports tidal water-quality standards assessments, Bay health evaluation, trend reporting, environmental change analysis, and the implementation of the Bay TMDL and Watershed Agreement.	EPA; VA DEQ, MD DNR and DC Health conduct sampling.
Tidal Water Quality – Water Column Hypoxia Monitoring Network	Measures real-time dissolved oxygen, salinity and temperature with buoys and vertical sensor arrays to capture short-term hypoxia dynamics.	Fills gaps in short duration monitoring needs; supports 4D interpolator development and water quality criteria assessment; improves model calibration.	NOAA, EPA and CBNERR-VA.
Submerged Aquatic Vegetation (SAV)	Provides annual SAV distribution and cover via VIMS aerial survey; supplemented by on water volunteer observers, detailed in-water observations and emerging satellite methods.	Tracks progress toward the 196,600-acre SAV restoration goal; supports Clean Water Act, Bay TMDL and Watershed Agreement requirements; essential for habitat health evaluations.	VIMS, Virginia Coastal Zone Program, MDE, MD DNR, EPA, Chesapeake Bay SAV Watchers Program volunteers.
Tidal Benthic	Tracks benthic community health through fixed stations and randomized stations; summer sampling season.	Assesses benthic biological condition, supports long-term trend analysis, and informs Chesapeake Bay restoration goal progress; cost-effective Bay health evaluation	MD DNR, VA DEQ, EPA, academic/contractor partners.

Table 1: Infrastructure Investment and Jobs Act (IIJA) funding supporting Chesapeake Bay Program (CBP) partnership monitoring from federal fiscal year (FY) 2022 through 2027

Federal FY	**FY22**	**FY23**	**FY24**	**FY25**	**FY26**	**FY27**
IIJA Funding Supporting CBP Partnership Monitoring	$2 million	$2.2 million	$2.4 million	$3.1 million	$3.2 million	$0

Beginning October 2027, an additional $3.2 million is needed from partners to maintain the infrastructure and operational capacity of core monitoring networks and avoid disruption in ongoing monitoring activities

Figure 2

Funding sources and funding partners that make up each of the core partnership monitoring networks. Funding flows from the listed sources to the partners the operations of each monitoring network.

Note that the listed funding levels are approximate and may vary from year to year, as well as the number of funding sources and partners for each monitoring network.

IIJA funding will support the networks only through the 2026 federal appropriations cycle and be expended by October 2027, after which new resources will be needed to prevent contractions in core monitoring activities.

The Team explored all monitoring network vulnerabilities together; IIJA rose to the top as the key vulnerability (perceived vs. real)

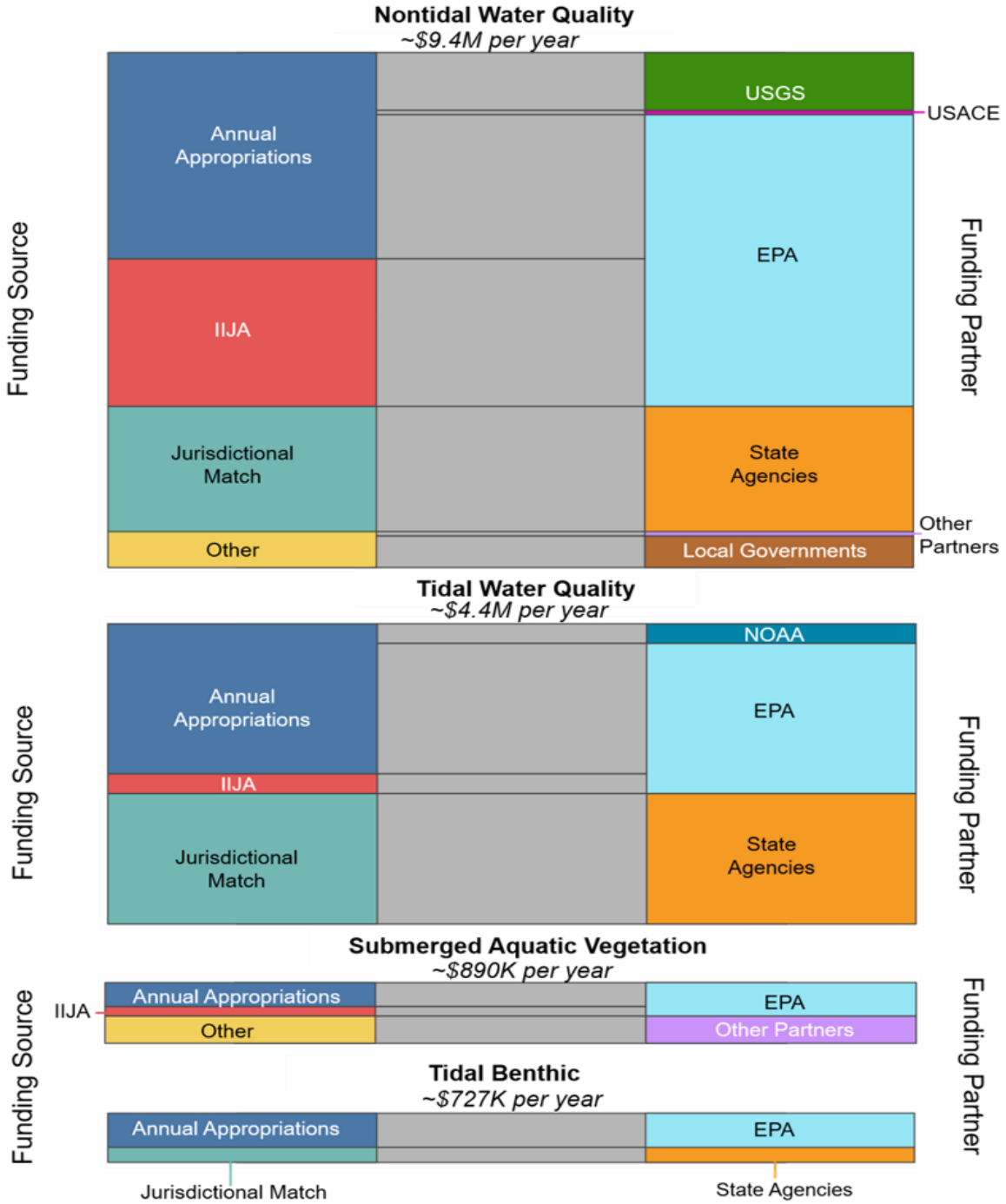
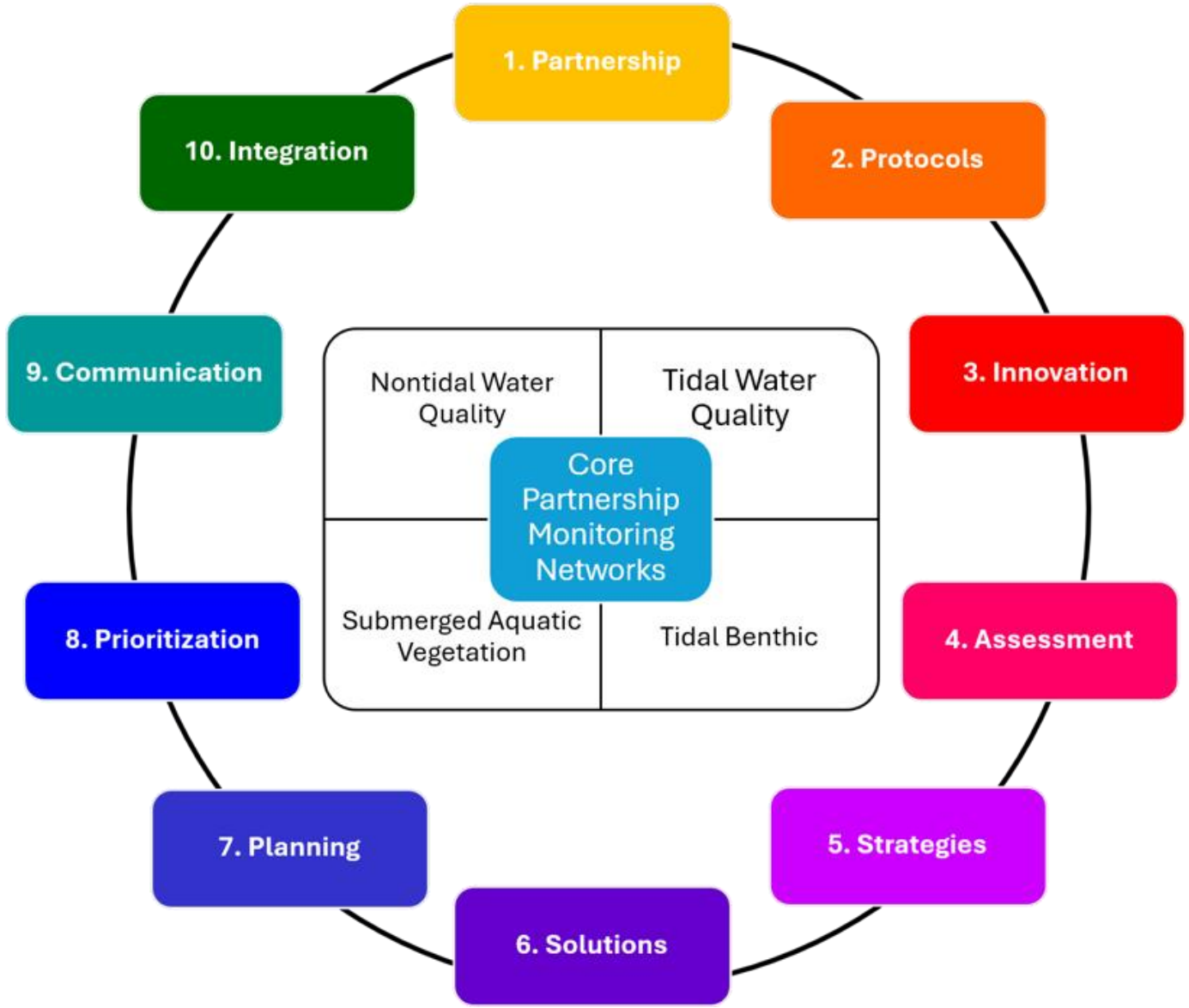


Figure 3

The 10 recommended sequential strategies for the CBP partnership to sustain its core monitoring networks and navigate potential vulnerabilities.

In the report, we unpack these strategies, explain them, and provide examples



1. Partnership

- Strong, well-coordinated partnerships built around a shared vision help spot challenges early, maintain clear communication and provide collaborative support that reduces risks to long-term monitoring.

2. Protocols

- Keeping consistent methods and robust data-quality practices ensures reliable long-term datasets, prevents unintended issues and supports trustworthy analyses.

3. Innovation

- Introduce new technologies carefully to improve efficiency while protecting long-term data consistency and reliability.

4. Assessment

- Regular evaluations help confirm that each monitoring site provides unique value, aligns with evolving priorities, and maintains scientific integrity and cost-effective network design.

5. Strategies

- Tailored, repeatable funding and coordination plans for each core network help partners identify needs, address vulnerabilities and sustain monitoring efforts that no single entity can maintain alone.

6. Solutions

- Customize solutions based on funding gap severity—large gaps may need multi-partner long-term investment, while smaller gaps may be bridged with targeted or short-term support.

7. Planning

- Anticipate differences in partner timelines, prepare for expiring resources and coordinate flexibly to manage emerging challenges and keep long-term monitoring stable.

8. Prioritization

- Combine flexible short-term funding with stable long-term investments to reduce vulnerability to funding volatility and maintain continuous monitoring capacity.

9. Communication

- Sharing results and success stories strengthens transparency, highlights emerging conditions, and demonstrates how monitoring data inform decisions and support long-term restoration.

10. Integration

- Embedding monitoring needs into policy frameworks ensures sustained support, aligns data with management decisions and safeguards resources during uncertain funding periods.

Chesapeake Bay Program Monitoring Networks:
Tidal Benthic Water Quality

Chesapeake Bay Program Monitoring Networks:
Submerged Aquatic Vegetation

Chesapeake Bay Program Monitoring Networks:
Tidal Water Quality

Chesapeake Bay Program Monitoring Networks:
Nontidal Network

Photo by Will Parson, Chesapeake Bay Program.

What is the Nontidal Network?

The Nontidal Network (NTN) tracks the condition of streams and rivers that flow into Chesapeake Bay by measuring river flow and the amount of nitrogen, phosphorus, and sediment in the water. These data help document how water quality looks today and how it is changing over time. The NTN includes 123 monitoring sites, which monitor two-thirds of the river flow entering the Bay. The NTN supports the Chesapeake Bay Program partnership's broader monitoring efforts, which also track tidal water quality, underwater grasses and tidal bottom-dwelling organisms.



Water quality monitoring technology is deployed all over the Watershed, including the instrument pictured above in Difficult Run. Photo by Rowan Johnson, USGS.

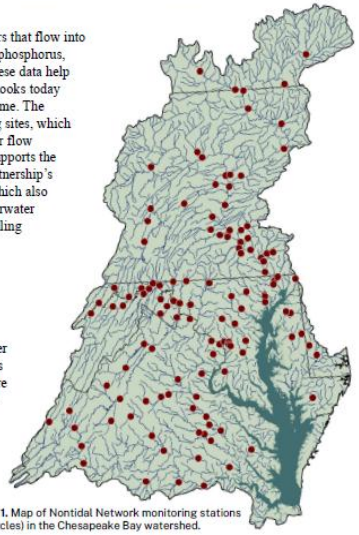


Figure 1. Map of Nontidal Network monitoring stations (red circles) in the Chesapeake Bay watershed.

Why is the Nontidal Network Important?

The NTN provides an understanding of what is happening in freshwater rivers and streams throughout the Chesapeake Bay watershed. Samples collected as part of the NTN are analyzed and used to understand where nutrient and sediment levels are higher or lower across the watershed. Additionally, the water-quality monitoring data are analyzed by USGS to show how the amount of nutrients and sediment are changing over time and whether conditions are improving or degrading in these streams and rivers. This information helps explain what is affecting nutrient and sediment delivery, where improvements are occurring, and where management actions may make the biggest difference for local and regional watershed health.

How is the Nontidal Network funded?

Funding for the NTN has traditionally comes from yearly funding approved by Congress, jurisdictional and partner match programs, and, recently, the Infrastructure Investment and Jobs Act (IIJA). There are 25 unique funding partners that support NTN monitoring and analysis with these varied funding sources. Seven of these partners collect NTN water-quality samples, including monthly and storm samples, using consistent sampling methods.



Nontidal Network sites are funded and maintained by many organizations, including USGS. Photo by Rowan Johnson, USGS

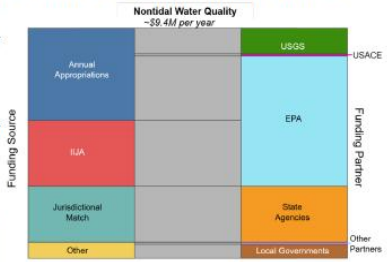


Figure 2. Diagram of Funding Sources and Partners for the Nontidal Network.

This summary is a supplement to the Chesapeake Bay Program's PSC Monitoring Strategy Report. To access this report, please scan this QR code.

Developed by the PSC Monitoring Strategy Team, November 2026.

Acronym Guide
NTN: Nontidal Network, USGS: United States Geological Survey, EPA: Environmental Protection Agency USACE: United States Army Corps of Engineers, IIJA: Infrastructure Investment and Jobs Act, PSC: Policy Steering Committee

Nontidal Network monitoring date, loads and trends are available online at usgs.gov. Please scan this QR code to access.

Ask for the PSC



Between October 8 and October 30, review the Monitoring Strategy Team report and accompanying factsheets



Share your feedback on the materials with your Monitoring Strategy Team member and at the November 5 PSC Meeting



Endorse the report during the November 5 PSC Meeting

Endorsement is defined as:

- Accepting the report as a finished product
- Recommending that the PSC annually check in and review the partnership monitoring networks
- Implementing the report strategies in the short- and long-term