

Beyond 2025 Office Hours – Water Quality Outcomes

January 14, 2025



Water Quality Standards Attainment and Monitoring

*Peter Tango, USGS, Monitoring
Coordinator*

*Breck Sullivan, USGS, STAR
Coordinator*

Through the Chesapeake Bay Watershed Agreement, the Chesapeake Bay Program has committed to...



Goal: *Water Quality*

Outcome:

Continually improve the capacity to monitor and assess the effects of management actions being undertaken to implement the Bay TMDL and improve water quality. Use the monitoring results to report annually to the public on progress made in attaining established Bay water quality standards and trends in reducing nutrients and sediment in the watershed.



What is our Outlook and Recent Progress?

Recent Progress:
Increase

Outlook: On Course*









RECENT PROGRESS
INCREASE



OUTLOOK
ON COURSE

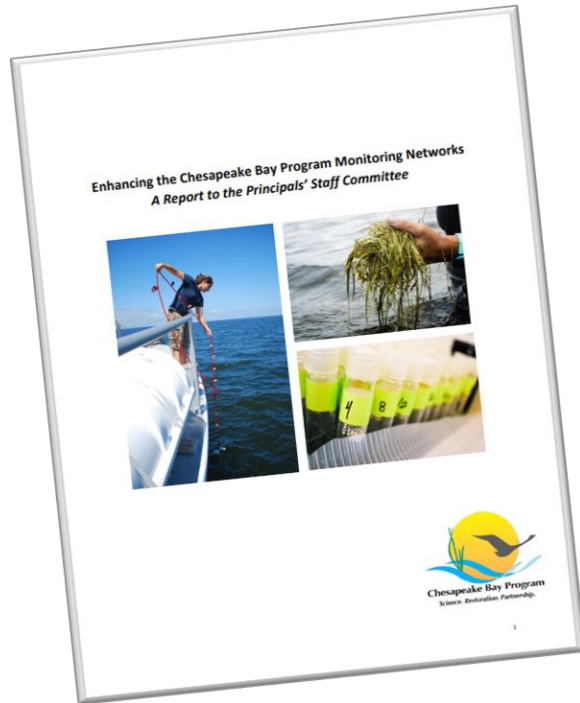


What is our Outlook and Recent Progress?

	Capacity to Monitor	Attainment of Tidal Water Quality Standards	Watershed Response to 2025 WIP	Report Trend Results
Outlook	 OUTLOOK ON COURSE	OUTLOOK MIXED RESULTS	OUTLOOK MIXED RESULTS	 OUTLOOK ON COURSE
Recent Progress	 RECENT PROGRESS INCREASE	 RECENT PROGRESS INCREASE	 RECENT PROGRESS NO CHANGE	 RECENT PROGRESS INCREASE



Capacity to Monitor









Metrics Considered:

- Funding
- Spatial and temporal coverage of stations
- Monitoring technologies
- Data management



What is our Outlook and Recent Progress?

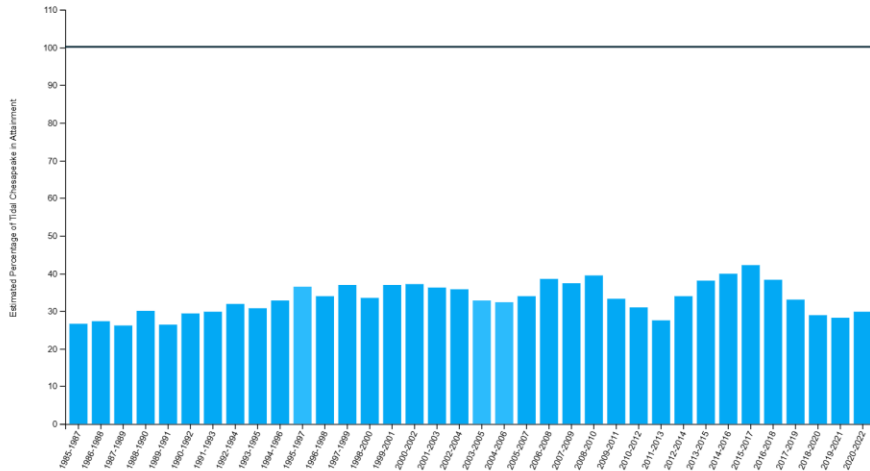
	Capacity to Monitor	Attainment of Tidal Water Quality Standards	Watershed Response to 2025 WIP	Report Trend Results
Outlook	 OUTLOOK ON COURSE	OUTLOOK MIXED RESULTS	OUTLOOK MIXED RESULTS	 OUTLOOK ON COURSE
Recent Progress	 RECENT PROGRESS INCREASE	 RECENT PROGRESS INCREASE	 RECENT PROGRESS NO CHANGE	 RECENT PROGRESS INCREASE

Attainment of Tidal Water Quality Standards

Water Quality Standards Attainment (1985-2022) ↵

Water quality is evaluated using three parameters: dissolved oxygen, water clarity or underwater grass abundance, and chlorophyll a (a measure of algae growth).

[VIEW CHART](#) [VIEW TABLE](#)








Metric Considered:

- Water Quality Standards Attainment Indicator

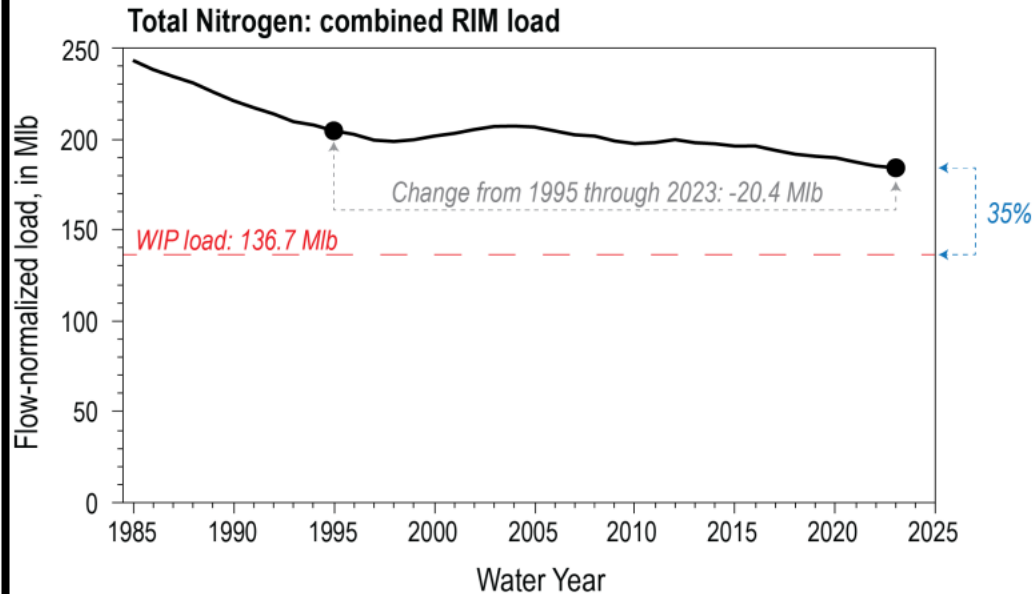


What is our Outlook and Recent Progress?

	Capacity to Monitor	Attainment of Tidal Water Quality Standards	Watershed Response to 2025 WIP	Report Trend Results
Outlook	 OUTLOOK ON COURSE	OUTLOOK MIXED RESULTS	OUTLOOK MIXED RESULTS	 OUTLOOK ON COURSE
Recent Progress	 RECENT PROGRESS INCREASE	 RECENT PROGRESS INCREASE	OUTLOOK MIXED RESULTS	 RECENT PROGRESS INCREASE

Watershed Response to 2025 WIP

In water year 2023, the combined RIM load of total nitrogen exceeded the WIP load by **35%**.









Metrics Considered:

- RIM monitoring data
- Nontidal monitoring data



What is our Outlook and Recent Progress?

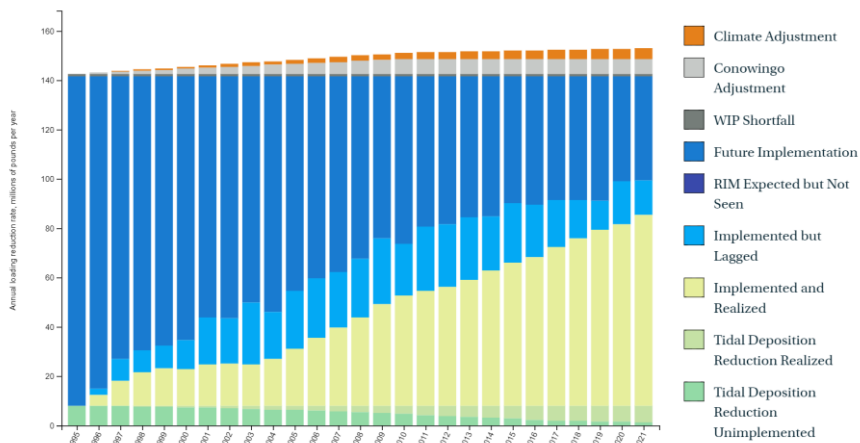
	Capacity to Monitor	Attainment of Tidal Water Quality Standards	Watershed Response to 2025 WIP	Report Trend Results
Outlook	 OUTLOOK ON COURSE	OUTLOOK MIXED RESULTS	OUTLOOK MIXED RESULTS	 OUTLOOK ON COURSE
Recent Progress	 RECENT PROGRESS INCREASE	 RECENT PROGRESS INCREASE	 RECENT PROGRESS NO CHANGE	 RECENT PROGRESS INCREASE

Report, Analyze and Interpret Trend Results

Chesapeake Bay TMDL Indicator: Total Nitrogen

This indicator combines monitored and modeled data to estimate the progress of annual pollution loading rate reductions since 1995 in response to implemented management practices.

[VIEW CHART](#) [VIEW TABLE](#)



Metrics Considered:

- New Indicators
- Publications
- Trend Reports
- Partnership products

A large, stylized blue letter 'B' is positioned on the left side of the slide, set against a dark blue background. The letter is bold and has a slight shadow effect.

Big Question

Provide advice to the Management Board on whether "to consolidate, reduce, update, remove, replace or add new outcomes."

Current Outcome

Continually improve our capacity to monitor and assess the effects of the management actions being taken to implement the Chesapeake Bay Total Maximum Daily Load (Bay TMDL) and improve water quality. Use monitoring results to report annual progress being made in attaining water quality standards and trends in reducing nutrients and sediment in the watershed.

Current Outcome

Continually improve our capacity to monitor and assess the effects of the management actions being taken to implement the Chesapeake Bay Total Maximum Daily Load (Bay TMDL) and improve water quality. Use monitoring results to report annual progress being made in attaining water quality standards and trends in reducing nutrients and sediment in the watershed.

Current Outcome

Continually improve our capacity to monitor and assess the effects of the management actions being taken to implement the Chesapeake Bay Total Maximum Daily Load (Bay TMDL) and improve water quality. Use monitoring results to report annual progress being made in attaining water quality standards and trends in reducing nutrients and sediment in the watershed.

Advice to MB: UPDATE

- Assessing multiple categories
- “Continually improve” - Qualitative
- Speaks more to management activities

Questions to Consider

- What is the change we want to see in the ecosystem around water quality?
- Does the current outcome combine too many categories around WQ?
- How can we speak more to the goal – human health, clean water?
- Do we set incremental progress?
- How do we incorporate climate change and DEIJ?