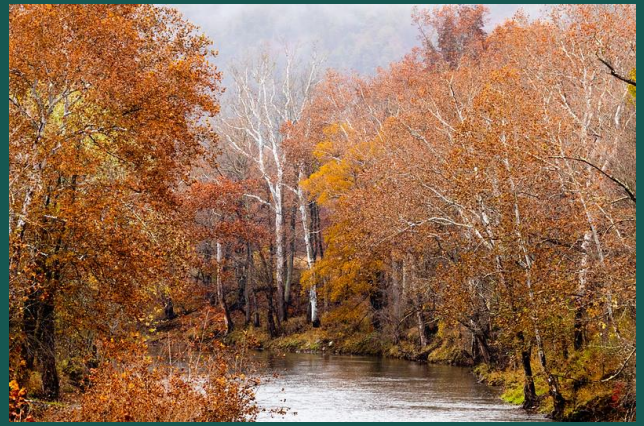
QUARTERLY PROGRESS MEETING – November 2024
Chesapeake Bay Program

2025 Watershed Implementation Plan (WIP) Outcome

Suzanne Trevena (speaking)
EPA Region 3, WQGIT Chair
Jeremy Hanson
CRC, WQGIT Coordinator

Bryant Thomas
VADEQ, WQGIT Vice-Chair
Sushanth Gupta *&* ***Caroline Kleis***
CRC, WQGIT Staffers

Through the Chesapeake Bay Watershed Agreement*, the Chesapeake Bay Program has committed to…*



Goal: *Water Quality*

Outcome:

By 2025, have all practices and controls installed to achieve the Bay's dissolved oxygen, water clarity/submerged aquatic vegetation and chlorophyll-a standards as articulated in the Chesapeake Bay TMDL document.

Photo: Will Parsons/Chesapeake Bay Program – Cacapon River, West Virginia

Summary of Outlook and Recent Progress

OUTLOOK
OFF COURSE

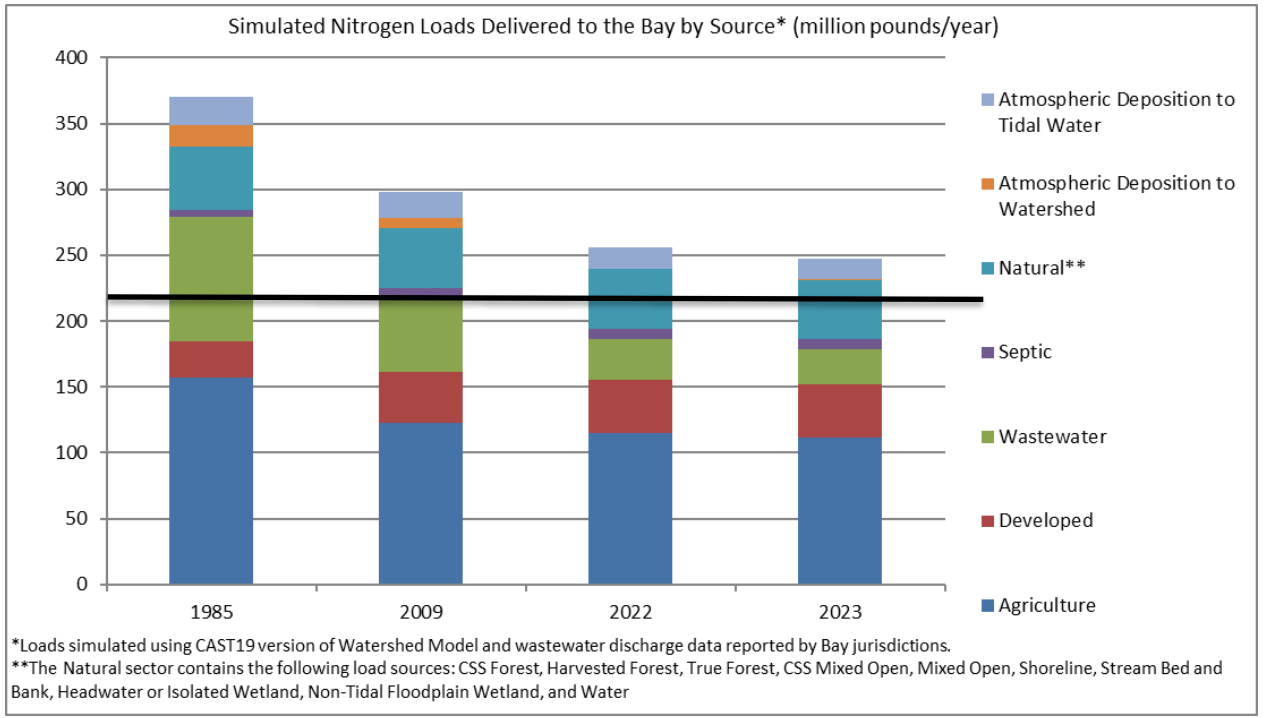
RECENT PROGRESS
INCREASE

	Nitrogen	Phosphorus	Sediment
Outlook	OUTLOOK **OFF COURSE**	OUTLOOK **OFF COURSE**	OUTLOOK **COMPLETED**
Recent progress	RECENT PROGRESS **INCREASE**	RECENT PROGRESS **INCREASE**	RECENT PROGRESS **INCREASE**

What is our Outlook and Recent Progress?

Nitrogen

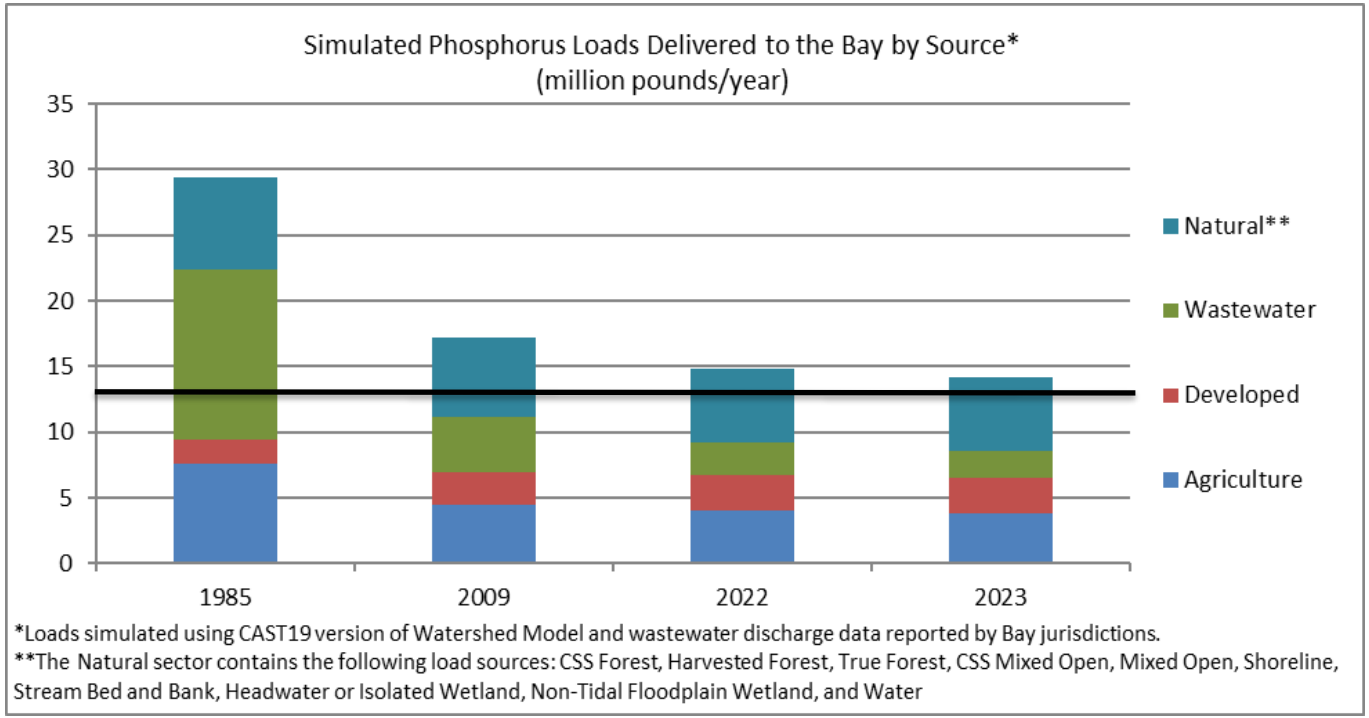
OUTLOOK
OFF COURSE



What is our Outlook and Recent Progress?

Phosphorus

OUTLOOK
OFF COURSE

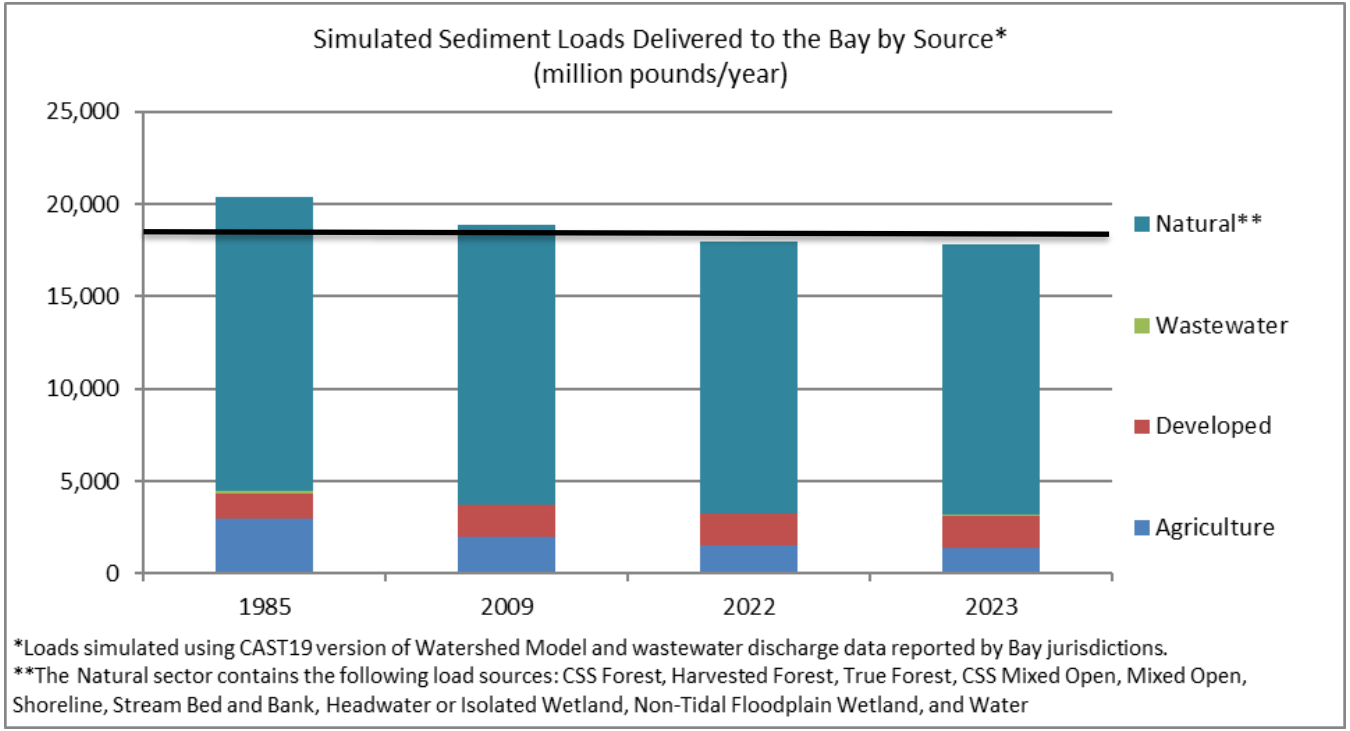


What is our Outlook and Recent Progress?

Sediment

RECENT PROGRESS
COMPLETED

OUTLOOK
ON COURSE



*Loads simulated using CAST19 version of Watershed Model and wastewater discharge data reported by Bay jurisdictions.
**The Natural sector contains the following load sources: CSS Forest, Harvested Forest, True Forest, CSS Mixed Open, Mixed Open, Shoreline, Stream Bed and Bank, Headwater or Isolated Wetland, Non-Tidal Floodplain Wetland, and Water

Learn

What have we learned in the last two years?

Photo Will Parsons/Chesapeake Bay Program – Stream Restoration Hopewell, Virginia

Successes

- Acceleration of BMP implementation progress reported
  - 3.4X more N reductions (21-23)
- TMDL Indicator/METRIC
- CAST-23
- Beyond 2025 input
- Improved Collaboration

What is our Outlook and Recent Progress?

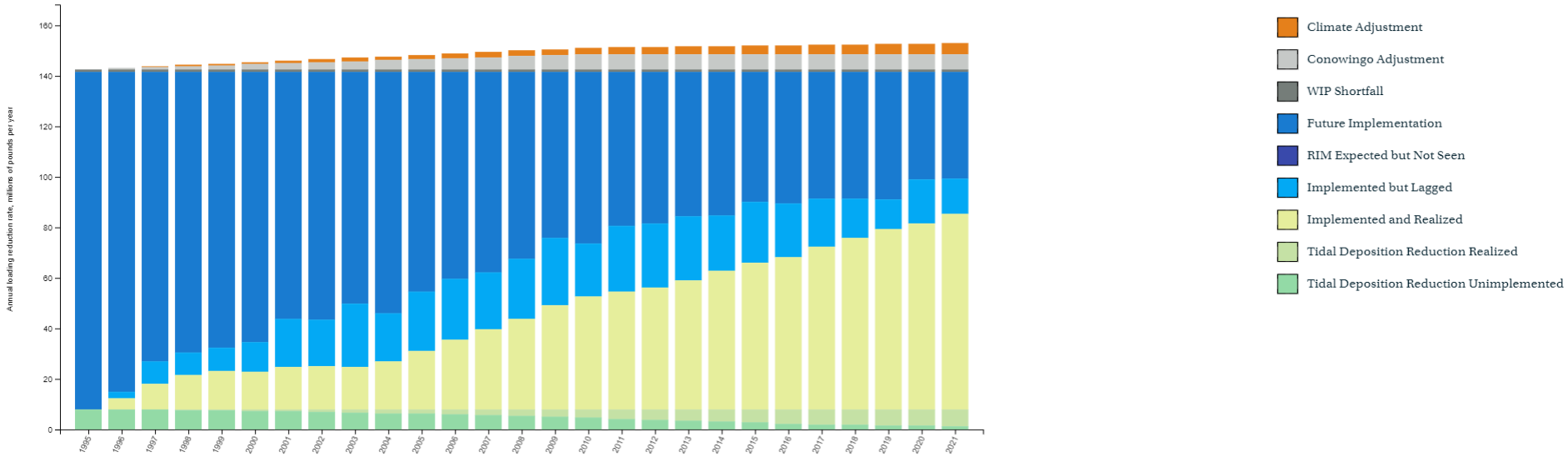
TMDL Indicator Nitrogen

OUTLOOK OFF COURSE

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. See how these data are used in the Water Quality Standards Attainment and Monitoring Outcome.

VIEW CHART VIEW TABLE



What is our Outlook and Recent Progress?

TMDL Indicator Phosphorus

OUTLOOK OFF COURSE

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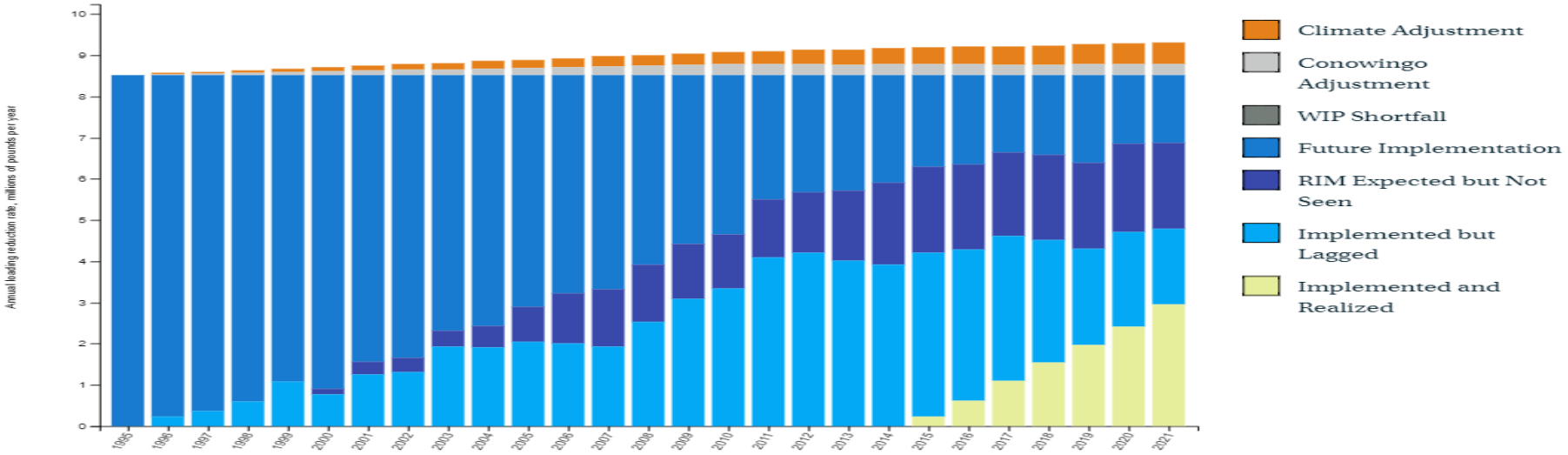
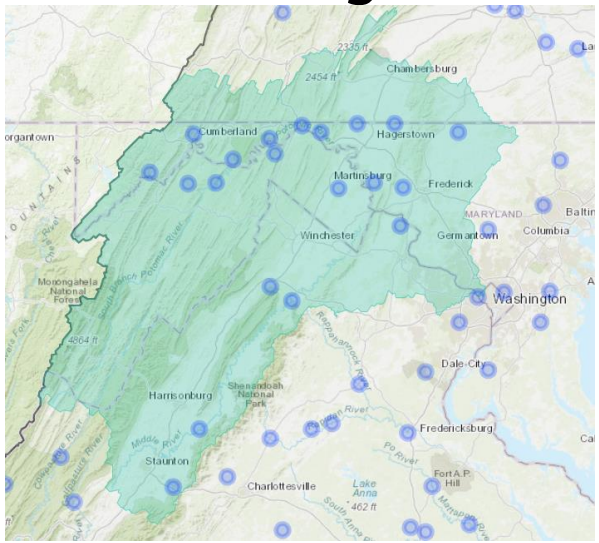
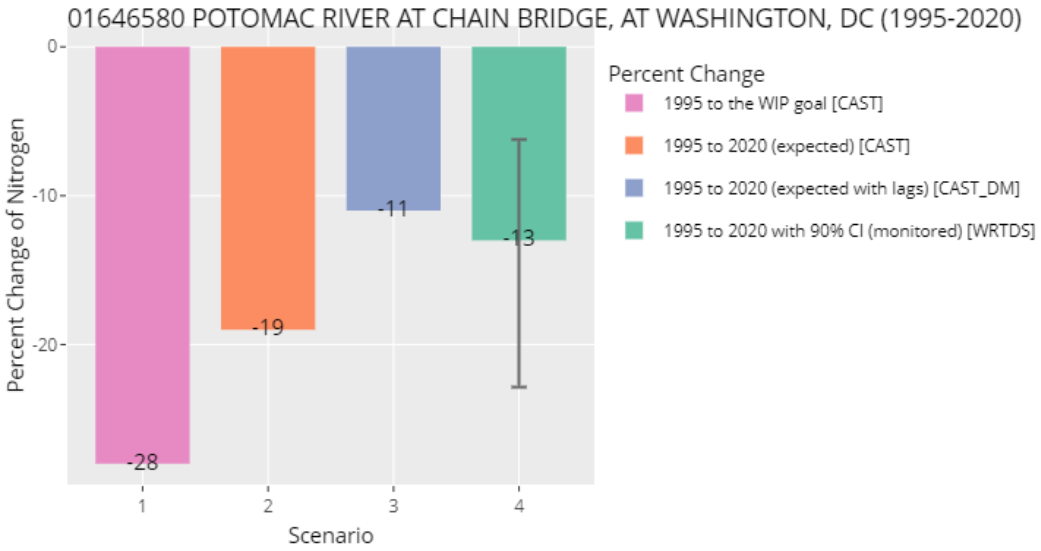


METRIC: Example 1: 01646580 Potomac River Total Nitrogen



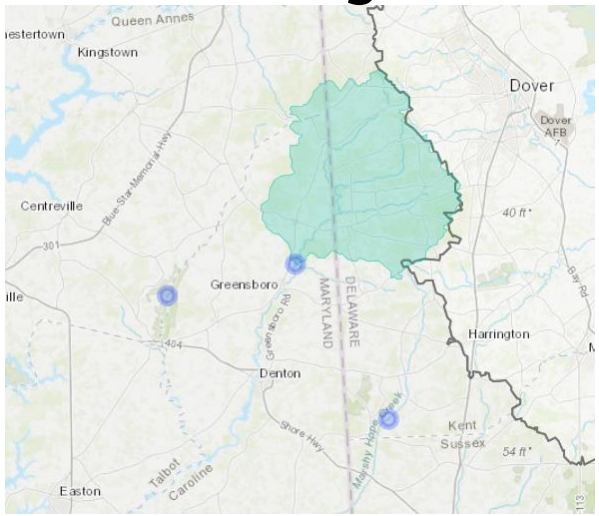


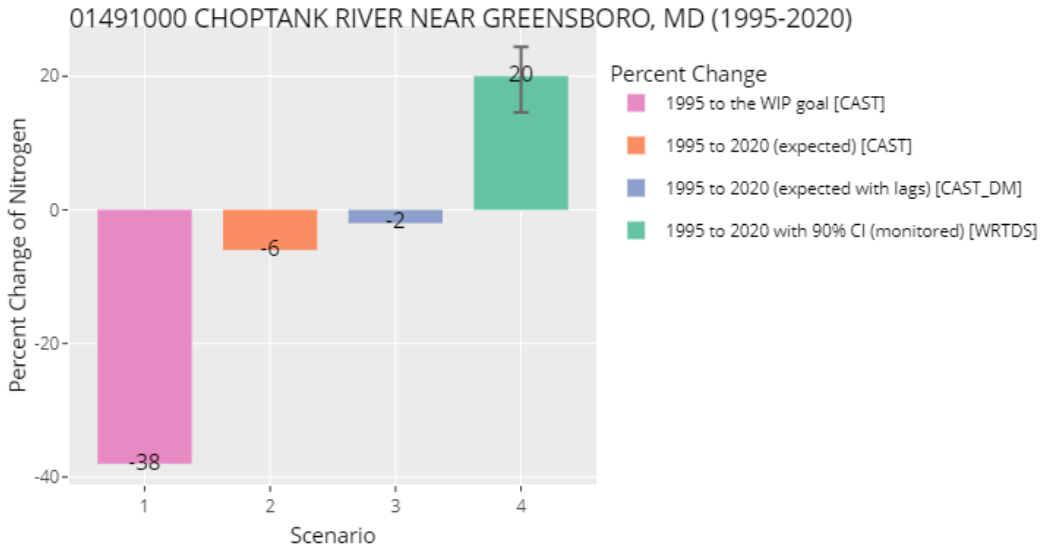
Interpretive Text

1. CAST estimates a 28 percent reduction in the long term from **implementation of the WIP** using 2025 land use and inputs.
2. CAST estimates a 19 percent reduction in the long term from **2020** land use, inputs, and management practices.
3. The Dynamic Watershed Model estimates that only a 11 percent reduction would have been seen by 2020, accounting for lags, sampling frequency, and other factors.
4. The river monitoring data show a 13 percent reduction with a 90% uncertainty range between 6 and 23 percent reduction.

Implication: The observed response is as expected over the period of 1995-2020.

METRIC: Example 2: 01491000 Choptank River Total Nitrogen





Interpretive Text

1. CAST estimates a 38 percent reduction in the long term from implementation of the **WIP** using 2025 land use and inputs.
2. CAST estimates a 6 percent reduction in the long term from **2020** land use, inputs, and management practices.
3. The Dynamic Watershed Model estimates that only a 2 percent reduction would have been seen by 2020, accounting for lags, sampling frequency, and other factors.
4. The river monitoring data show a 20 percent increase with a 90% uncertainty range between 15 and 24 percent increase.

Implication: The observed response is less than expected over the period of 1995-2020.

Challenges

- Funding and tech assistance needs remain
- Response gap in modeled and monitored progress
- Understanding growth and data inputs
- Conowingo and climate loads
- Need for innovation to address loads from nonpoint sources
- Cross GIT collaboration & balance across outcomes

Adapt

How does all of this impact our work?

Photo: Will Parsons/Chesapeake Bay Program – Green Infrastructure in Lancaster County, Pennsylvania

Based on what we learned, we plan to …

- Improve effectiveness to meet water quality goals
- Balance water quality and living resources
- Explore recommendations for Beyond 2025

Equitable and inclusive restoration …

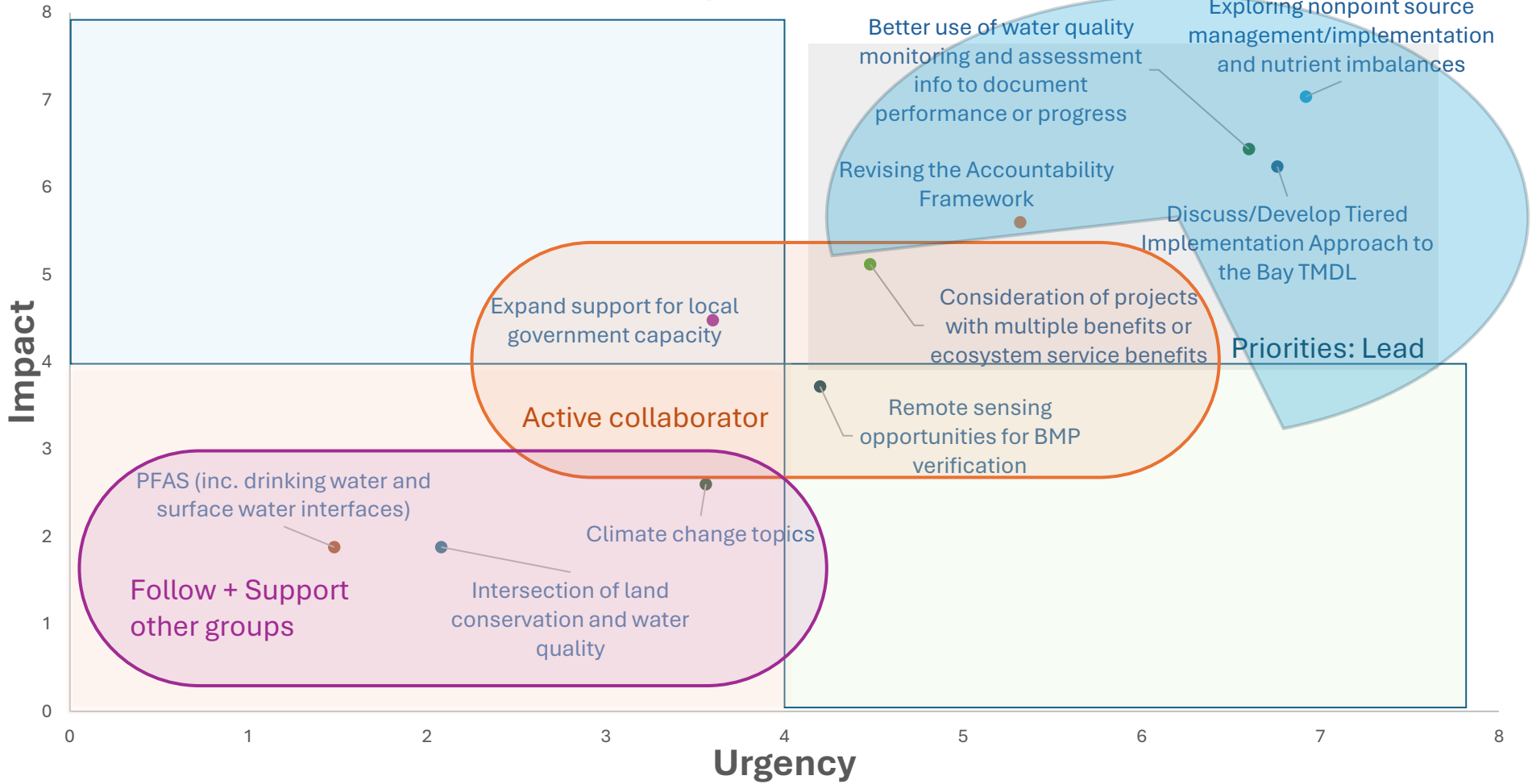
- Support actions within the DEIJ action plan
  - Better define at-large member roles
  - Use distribution lists to disseminate EJ info
  - Work with partners to identity trusted sources
  - Partner spotlights on DEIJ and water quality successes/lessons learned

Fill the Gap

How can the Management Board help achieve the Outcome?

Photo: Will Parsons/Chesapeake Bay Program - Tree planting in Baltimore, Maryland

2025 WIP Outcome Urgency vs Impact for Priorities



Filling the WIP Outcome Gap: Priority Topics for 2025-2026

- Phase 7 modeling tools
- Updated planning targets
- Tiered implementation
- Increase use of monitoring for progress
- Nonpoint source management/innovation
- Considering revisiting accountability framework

Filling the WIP Outcome Gap: Help

1. Maintain or increase momentum in water quality improvements
2. Do you agree with the identified 2025 WIP Outcome priorities?
3. Are there different/additional 2025 WIP priorities for the WQGIT to consider or address?

Discussion

Takeaway #1

- Progress is a journey and there are numerous challenges to meet the WIP outcome goals

Takeaway #2

- Need for continued collaboration and innovation