Clean Water for a Healthy Bay:

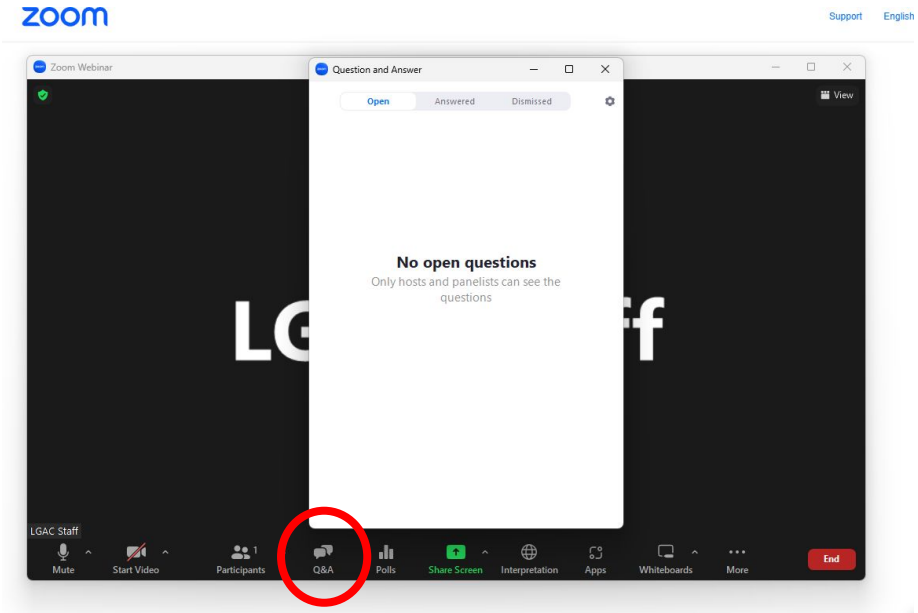
Exploring the next revised Goal of the Watershed Agreement

Chesapeake Bay Program Webinar Series

July 15, 2025

Housekeeping

- All participants are muted.
- Please ask questions!
  - Type them into the Q & A Box located at the bottom of the webinar. We'll answer it during the Q & A portion.
- This webinar is being recorded. It will be posted within 48 hours to the Chesapeake Bay Program's YouTube page: https://www.youtube.com/c/chesbayprogram.



Presenters

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Chesapeake Research Consortium

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U.S. Geological Survey

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July 15, 2025

Toxic Contaminants Mitigation Outcome

Draft Revised *Chesapeake Bay Watershed Agreement*

Keith Bollt
EPA Chesapeake Bay Program Office
Toxic Contaminants Workgroup Coordinator

2014 *Chesapeake Bay Watershed Agreement* Outcome Language

Toxic Contaminants Research Outcome: Continually increase our understanding of the impacts and mitigation options for toxic contaminants. Develop a research agenda and further characterize the occurrence, concentrations, sources and effects of mercury, PCBs and other contaminants of emerging and widespread concern. In addition, identify which best management practices might provide multiple benefits of reducing nutrient and sediment pollution as well as toxic contaminants in waterways.

Toxic Contaminants Policy & Prevention Outcome: Continually improve practices and controls that reduce and prevent the effects of toxic contaminants below levels that harm aquatic systems and humans. Build on existing programs to reduce the amount and effects of polychlorinated biphenyls (PCBs) in the Bay and watershed. Use research findings to evaluate the implementation of additional policies, programs and practices for other contaminants that need to be further reduced or eliminated.

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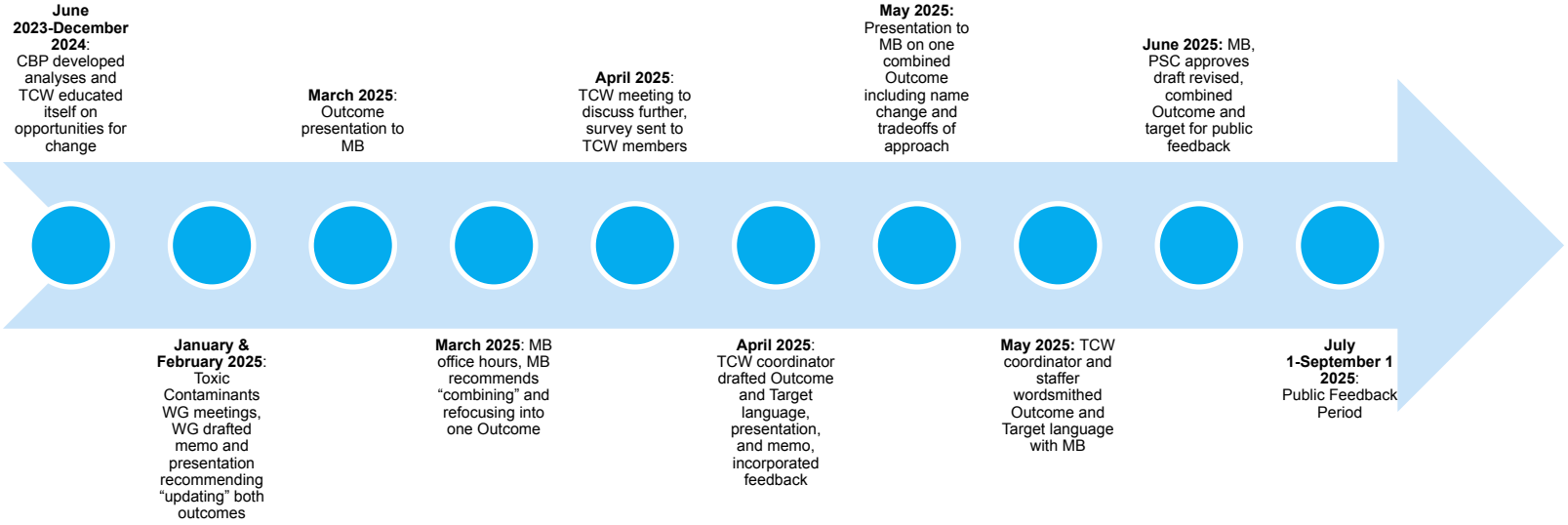
What was the process to revise?



What did we learn through that process?

The problem:

Current Outcomes lack all 5 Specific, Measurable, Achievable, Relevant, or Timebound (SMART) elements

- Current language does not reflect the WG's financial resources and staff time, added value to signatory partners of partnering, authority of the WG and its members over signatory partner programs, or WG focus since the 2014 *Watershed Agreement* signing

The solution:

- Toxic Contaminants is an opportunity for streamlining and added value
- The Bay Program partnership is best suited to be a convenor of practitioners rather than the place where toxics are directly reduced
- The revised Outcome should be "Achievable" and "Relevant", but is not a good candidate for all 5 SMART elements
- Draft language focuses on boosting partner practitioners' capacity to mitigate risk

What does the draft revised *Watershed Agreement* language say?

Toxic Contaminants Mitigation

Outcome: Reduce the amount and effect of toxic contaminants, such as PCBs, plastics, mercury and PFAS, on the waters, lands, living resources and communities of the Chesapeake Bay watershed by facilitating an increased understanding of their impacts and mitigation options.

Target: Promote continuous information sharing between researchers, program managers and policymakers on the lessons learned, best practices and most up-to-date science, policy and communications around the toxic contaminants impacting the Chesapeake Bay watershed.

Thank you!

Keith Bollt
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July 15, 2025

Reducing Excess Nitrogen, Phosphorus and Sediment

Draft Revised *Chesapeake Bay Watershed Agreement*

2014 *Chesapeake Bay Watershed Agreement* Outcome Language

2017 Watershed Implementation Plans (WIP) Outcome:
By 2017, have practices and controls in place that are expected to achieve 60 percent of the nutrient and sediment load reductions necessary to achieve applicable water quality standards compared to 2009 levels.

2017 Status:
Phosphorus and Sediment targets achieved; Nitrogen target not reached

OUTLOOK
COMPLETED

2025 Watershed Implementation Plans (WIP) 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.

2024 Status:

OUTLOOK
OFF COURSE

RECENT PROGRESS
INCREASE

Visit www.chesapeakeprogress.com for more information

What needed to be updated with this outcome?

- Needs & wants:
  - Accountability
  - New timeline
  - Maintain current commitments and ongoing effort to implement practice
  - Innovation & new science
  - Language that represents implementation efforts instead of planning

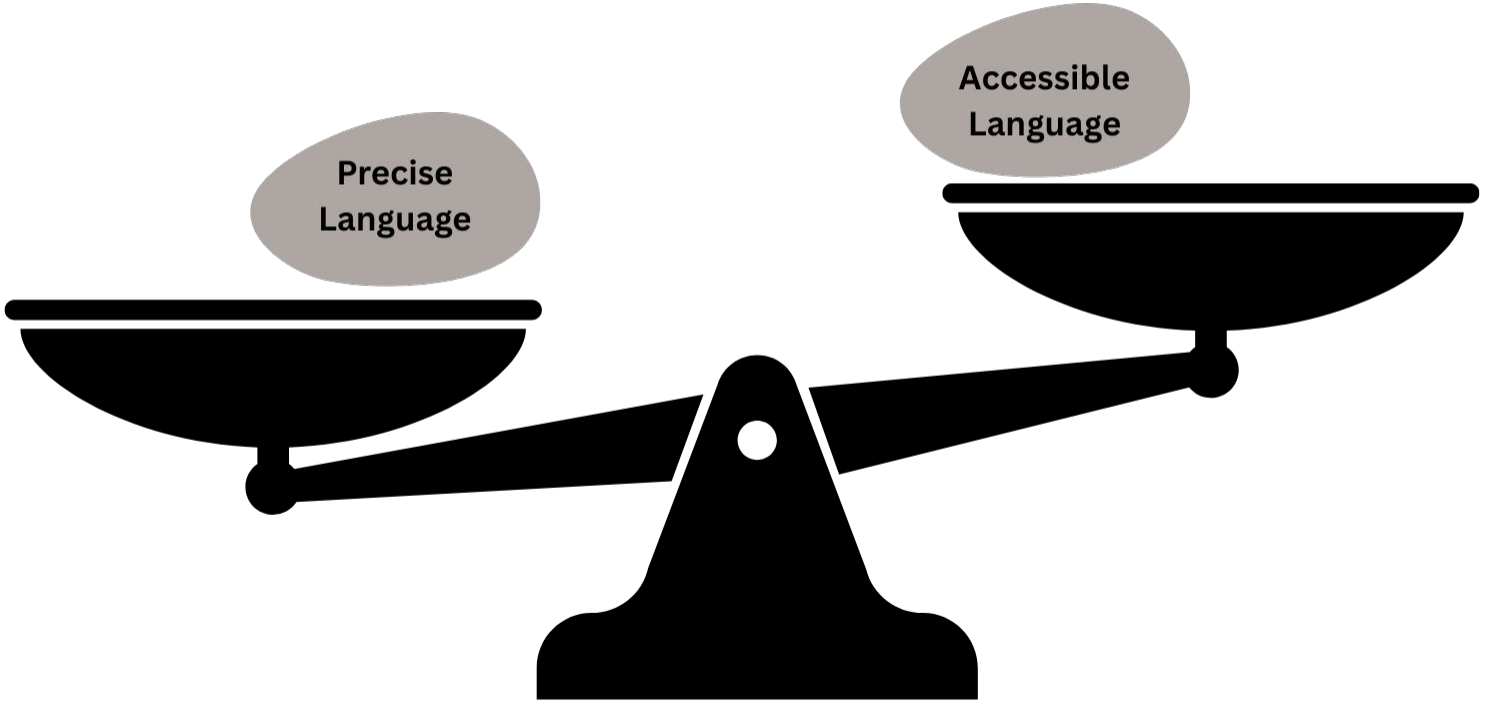
The process

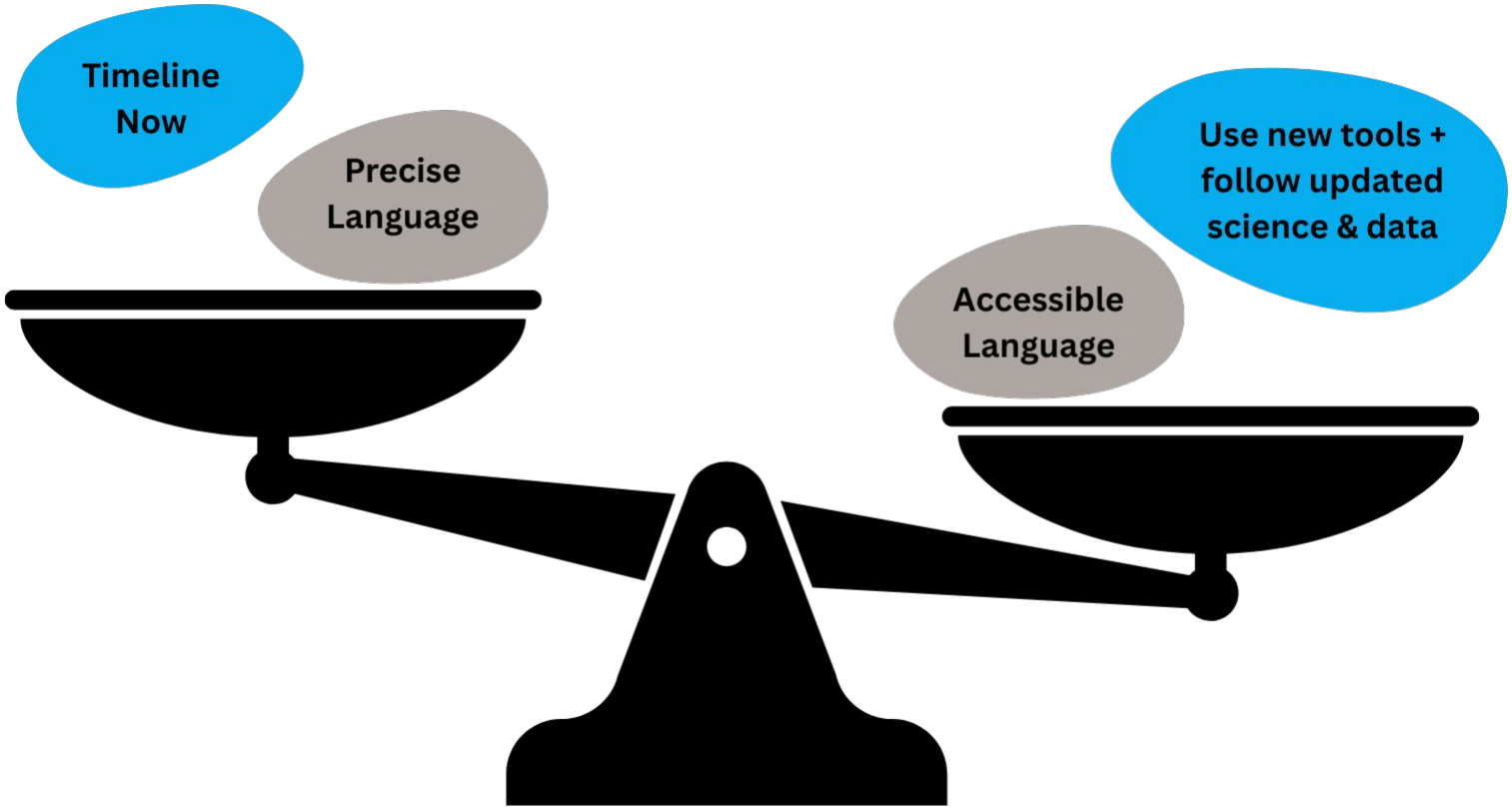
- Feedback received via multiple touch points
- WQGIT meetings, polls and “office hours”
- Informal discussions with WQGIT members

For reference:

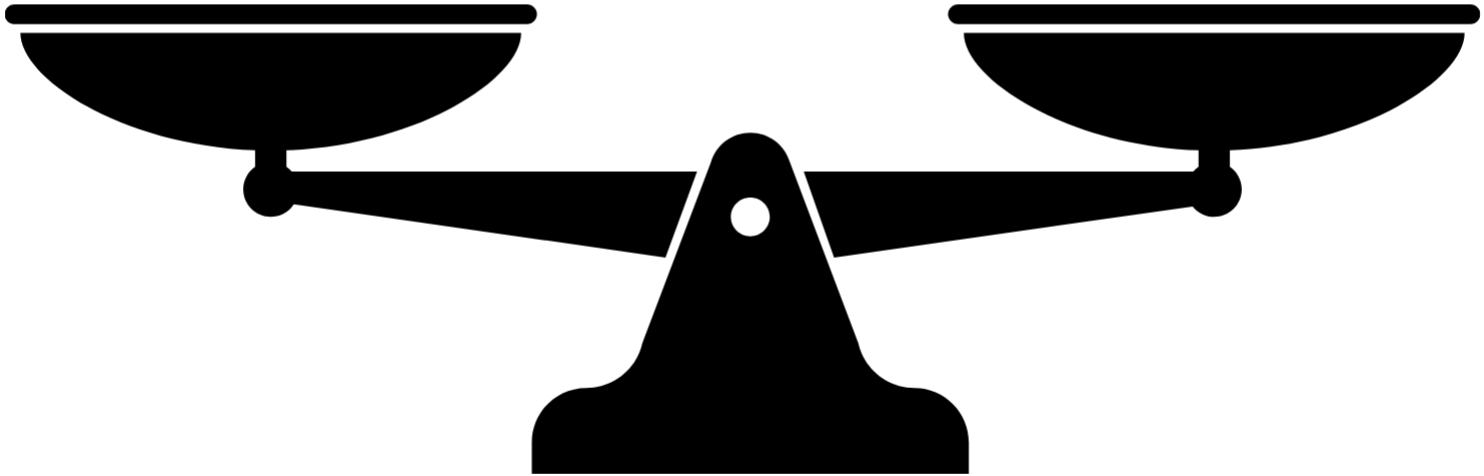
- January 14, 2025 office hours; February 11 office hours
- March 13, 2025 Management Board; April WQGIT

Searching for balance…




Timeline
Now
Precise
Language
Use new tools +
follow updated
science & data
Accessible
Language

- Partners remain committed to existing targets and ongoing implementation
- We attempt to be precise and less wonky at the Outcome level
- “Targets” underneath the Outcome are still wonky in order to be precise
- We set accountable timeline for establishing new reduction targets
- We attempt to better link multiple lines of evidence (modeling + monitoring) to demonstrate net improvements



Draft Outcome and Targets

<u>Outcome: Reducing Excess Nitrogen, Phosphorus and Sediment</u>

Implement and maintain practices and controls that will reduce excess nitrogen, phosphorus and sediment to support living resources and protect human health by achieving water quality standards.

- Through 2030, continue to implement and maintain practices and controls to reduce excess nitrogen, phosphorus and sediment to achieve the interim water quality targets as determined by the Principals' Staff Committee. Partners may meet this target by implementing their Phase III Watershed Implementation Plans, two-year milestone commitments or other innovative strategies.
- By December 2030, update this outcome with revised targets that include a timeline to meet the updated water quality targets for nitrogen, phosphorus and sediment.
- Demonstrate net reductions in nitrogen, phosphorus and sediment toward meeting the interim water quality targets as determined by the Principals' Staff Committee, through multiple lines of evidence, including annual progress reporting and monitoring data (in coordination with the Water Quality Standards Attainment and Monitoring Outcome).

Translation

<u>Outcome: Reducing Excess Nitrogen, Phosphorus and Sediment</u>

Implement and maintain practices and controls that will reduce excess nitrogen, phosphorus and sediment to support living resources and protect human health by achieving water quality standards.

- Through 2030, continue innovation and implementation under the current Watershed Implementation Plans
- By December 2030, update commitments after the new model is created and fully reviewed
- Use multiple tools and continue to better utilize existing data to demonstrate reductions as we go

Questions?

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Water Quality Standards Attainment and Monitoring Outcome

Draft Revised *Chesapeake Bay Watershed Agreement*

July 15, 2025

2014 *Chesapeake Bay Watershed Agreement*
Outcome Language

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.

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2014 *Chesapeake Bay Watershed Agreement*
Outcome Language

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.

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What needed to be updated with this outcome?

- It is not quantitative or SMART. “Continually improve,” makes it difficult to assess progress.

- It does not address the attainment of water quality standards (WQS) as the ultimate endpoint.

What needed to be updated with this outcome?

Input from workgroups and partnership members:

- Emphasize the importance of monitoring capacity,
- Focus on attainment of WQS and include insights from other tidal and nontidal data,
- Consolidate with WIP Outcome,
- Broaden outcome to cover other water quality stressors besides the TMDL parameters.

What needed to be updated with this outcome?

Input from the Management Board:

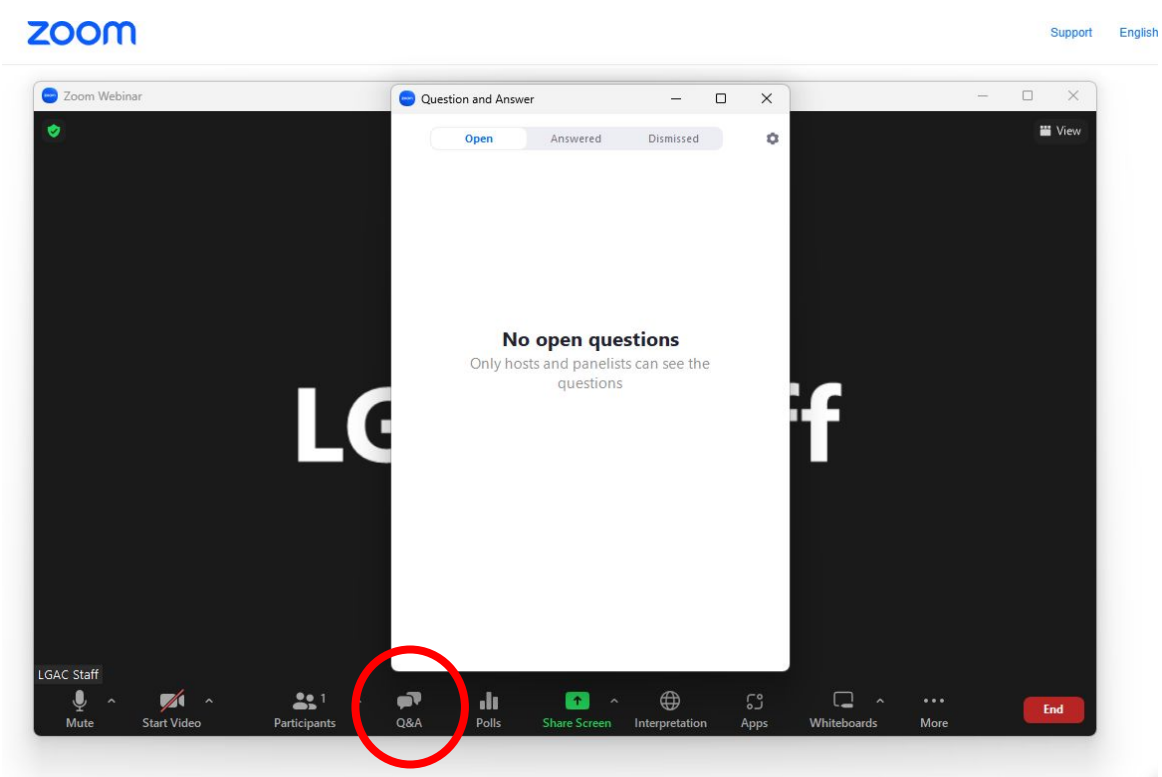
- Focusing on attainment of water quality standards (WQS),
- Account for nontidal and tidal data
- Do not combine the outcome with the WIP outcome,
- Do not broaden it too much outside of work not already being monitoring and assessed.
- Chose NOT to adopt SMART Targets for non-tidal and tidal water quality patterns.

Draft Outcome and Targets for Revised *Watershed Agreement*

Measure changing water quality conditions by maintaining core monitoring networks, evaluating attainment of established water quality standards (i.e., dissolved oxygen, clarity and chlorophyll-a) in the Bay and strengthening scientific understanding and communication of patterns in nitrogen, phosphorus, sediment and other parameters throughout the Bay and watershed.

- Maintain Monitoring Networks: Annually, maintain full core monitoring network operations to support analysis and communication of water quality loads, water quality trends and water quality standards attainment.
- Develop Methods for Water Quality Standards Attainment: Develop and expand partnership approved approaches to support assessment of all dissolved oxygen, clarity and chlorophyll a criteria in all designated uses using all available data. For dissolved oxygen criteria assessment, have methods established and approved by 2028 and applied in reporting by the end of 2030.
- Evaluate Water Quality Standards Attainment: Through management actions in support of the Reducing Excess Nitrogen, Phosphorus and Sediment Outcome, maintain a long-term trend of improvement in the water quality standards attainment indicator at a rate of at least 0.2% per year, aligned with the historical baseline trend of the multi-metric water quality standards indicator between 1985 and 2022. Update the water quality standards attainment indicator annually.
- Calculate Water Quality Loads and Trends:
    - Watershed: In coordination with the Reducing Excess Nitrogen, Phosphorus and Sediment Outcome, compute and communicate loads and trends in nitrogen, phosphorous and sediment for the watershed. On an annual basis produce the load and trend analyses and communication results for the nine major river system river input monitoring sites. Conduct the same analysis for the complete non-tidal network on a biennial basis.
    - Tidal Bay and tidal tributaries: On an annual basis for the tidal Bay and tributary stations, compute and communicate trends for physical, chemical and biological measures.

Time for Questions!



Upcoming Beyond 2025 Webinars

- **July 24**
  - **Understanding another revised Goal of the Watershed Agreement: Healthy Landscapes**
  - (Land Use Decision Support, Protected Lands, Healthy Forests and Trees, Adapt to Changing Environmental Conditions)
- **July 30**
  - **Engaged Communities: A Closer Look at Final Proposed Goal of the Watershed Agreement**
  - (Workforce, School District Planning, Local Leadership, Student Experiences, Public Access)