



WATER QUALITY STANDARDS ATTAINMENT AND MONITORING (WQSAM) SCIENTIFIC, TECHNICAL ASSESSMENT AND REPORTING (STAR)

2014 WATERSHED AGREEMENT: GOAL & OUTCOME LANGUAGE

Water Quality GOAL: Reduce pollutants to achieve the water quality necessary to support the aquatic living resources of the Bay and its tributaries and protect human health.

WQSAM 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.

OUTCOME DISPOSITION ADVICE TO MANAGEMENT BOARD:

Update

We propose for the WQSAM Outcome to be updated:

- The outcome language is neither quantitative nor SMART. “Continually improve,” makes it difficult to assess progress.
- It refers to activities (monitoring) and products (reports, trends) rather than ecosystem change.
- It does not address the attainment of water quality standards (WQS) as the ultimate endpoint.
- It does not closely align with the water quality goal.

Challenges:

- The Chesapeake Bay Program (CBP) is unable to assess all WQS (i.e., dissolved oxygen, submerged aquatic vegetation, chlorophyll *a* criteria) in all segments due to limits imposed from our approved assessment protocols and analysis capacity at this time.
- The slow rate of water quality change in the Bay suggests that achievement of WQS is uncertain and remains in the distant future ([See CESR Report](#)).
- Funding is needed to maintain the integrity of existing CBP water quality monitoring networks, expand networks to address critical gaps, and assess progress ([See PSC Monitoring Report](#)). A strategy is being pursued to address these funding needs.
- Nonpoint source programs are not generating enough pollutant reductions to meet Bay water quality goals. New approaches must accelerate adoption of nutrient reduction practices ([See CESR Report](#)).

Opportunities:

- Assessing the impact of water quality relative to other factors on living resource response. Enhancements to our outcome direction will help CBP address questions about drivers of observed water quality and living resources changes and effectively target the next cycle of analysis to address management concerns ([See CESR Report](#)).
- Partnership effort to increase collaboration between federal, state, academic, and local monitoring programs in identifying funding sources to sustain/establish monitoring networks and assess progress.
- Maintain a focus on activities (monitoring, reporting) in supporting documents (i.e., Workplan, Management Strategy) to support achieving outcome while updating outcome to represent improvement in water quality conditions.

Consider how the outcome relates or could relate to the Bay Agreement mission, vision, and themes/pillars and goals:

- Clean water is evident in the vision, themes, and goals of the 2014 Agreement to emphasize the

need to reduce pollutants. However, the vision, theme, and goal state to reduce pollutants to achieve healthy waters for animals and people. The current outcome language focuses on the Bay TMDL and reduction in nitrogen, phosphorus, and sediment. Jurisdictional managers and the public have stated they are interested in characterizing water quality more broadly (e.g., bacteria, toxics, salt) to reflect the interests of people and their use of the resources.

Consider the timescale for completing the outcome (5, 10, 15 years):

- The current outcome states to report progress annually. Partners advocated for reporting every two years or more to match required Integrated Reports and help show water quality changes.
- A complementary monitoring effort will be required to assess status and evaluate change in response to management actions as long as implementation activities continue to document progress across the watershed and estuary.

Consider resource needs to achieve the Outcome (high, medium, low):

- High: Current funding will only support CBP monitoring networks at present capacity and not priority needs for enhancement or keep pace inflationary pressures. New resources will be needed to support the networks, address emerging networks, and prevent a significant contraction. In addition, analysis and reporting of CBP monitoring networks will require resources to continue understanding and communicating changes through time that support decision-making. Resource needs will increase if the monitoring and assessment efforts were broadened to address stakeholder interests in ecosystem response.

What value is added by having the Chesapeake Bay Program work on the outcome:

- Coordination across jurisdictions for a common monitoring and analysis framework to enhance data comparability and accuracy, improve efficiency and resource allocation, improve science communication, and strengthen scientific foundation for decision-making.
- Foster shared learning around monitoring and analysis via the exchange of knowledge and best practices among stakeholders. This collaboration empowers all partners to refine their strategies, maximize their impact, participate in joint accountability, and ultimately accelerate restoration and conservation.
- Strengthens commitment to using and funding monitoring data for decision-making alongside modeling information.
- Sustained and improved monitoring allows the CBP partners to assess and evaluate progress from restoration and conservation efforts, while identifying knowledge gaps.
- Analysis and synthesis of water quality data is essential to understanding and communicating attainment of water quality standards and trends in tidal and nontidal waters that support decision-making for the WIP outcome.
- **Consider how the Outcome, as written, benefits the public:**
 - The monitoring activities and analysis outputs provided to support the existing outcome have a history of high value use in partnership applications. Analysis and reporting products stakeholders to enhance public understanding of water quality progress, ensure trust in the restoration process, and hold the partnership accountable for our work.
 - Broadening the scope of pollutants as stated in the goal more accurately reflects the public's interest in water quality beyond nutrients and sediment and allows the outcome to benefit more of the stakeholders living within the watershed. This has been expressed by both jurisdictional representation and public comments through the [Phase 1 Beyond 2025 process](#). In addition, expanding the acceptance of community monitoring will elevate the participation, interest, and protection of communities.