WATER QUALITY STANDARDS ATTAINMENT AND MONITORING OUTCOME (WQSAM)

SCIENTIFIC, TECHNICAL ASSESSMENT AND REPORTING (STAR)

CHESAPEAKE BAY WATERSHED AGREEMENT OUTCOME LANGUAGE

PROPOSED DRAFT OUTCOME LANGUAGE: Capture improving water quality conditions to enhance ecosystem health by maintaining monitoring and assessment, evaluating attainment of established water quality standards (DO, Clarity, Chl-a) in the Bay, and strengthening scientific understanding of patterns in nutrients (N & P), sediment and other parameters in the watershed and Bay.

EXISTING 2014 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.

PROPOSED TARGET All of the targets are under construction. Below are the conceptual ideas for the targets.	**New Target / Update of Existing Target**	**Date estimate for target being developed**
Water Quality Standards Attainment Method	New Target but work already underway through CAP	
Water Quality Standards Attainment Results	Update of existing	Results produced annually
Nutrient and Sediment Loads and Trends in the Watershed	Update of existing – Loads, Trends	Nontidal results produced every other year
Factors Impacting Tidal Waters	New Target but work already conducted through ITAT	

*Detailed activities will be included in an updated work plan

SUPPORTING INFORMATION

Rationale and context for proposed draft outcome language: There was consensus from the Management Board to update the WQSAM outcome by focusing on attainment of water quality standards (WQS), accounting for nontidal and tidal data, and not combining the outcome with the WIP outcome. Based on this feedback, we provided STAR workgroups with draft outcome language, and they provided even more valuable input which led to the proposed language. STAR feedback can be grouped into five categories: 1) Emphasize the importance of monitoring capacity, 2) Focus on attainment of WQS and include insights from other tidal and nontidal data, 3) Consolidate with WIP Outcome, 4) Broaden outcome to cover other water quality stressors besides the TMDL parameters, and 5) The current Water Quality Goal language should be the new outcome language.

The revised language directly addresses the feedback provided:

- "Capture improving water quality conditions to enhance ecosystem health," speaks to the change in state we aim to influence.
- "Maintaining monitoring and assessment," speaks to the critical role a strong tidal and nontidal monitoring program and the analysis of data is in achieving the overall outcome.
- "Evaluating attainment of established water quality standards (DO, Clarity, Chl-a) in the Bay," speaks to the SMART aspects of our commitment and points to attaining WQS in the Watershed Agreement.

- "Scientific understanding of patterns in nutrients (N & P), sediment," speaks to the critical role of understanding factors influencing water quality and the changes over time.
- "Other parameters," speaks to the consideration of additional parameters for a more comprehensive assessment of the system's health while not committing the Program to tracking specific information. It also speaks more to our goal language.
- "In the watershed and Bay," speaks to this work being conducted watershed wide and in the estuary.

To incorporate the feedback on how the proposed new WIP Outcome overlaps with the WQSAM outcome, we plan to either share targets with the WIP Outcome or reference how the actions of their outcome support our targets.

Topics/challenges for Management Board guidance (Optional): WQSAM Outcome is seeking guidance on target language.

Achieving a healthy Chesapeake Bay ecosystem is linked to improving water quality, but CESR reported how attaining water quality standards was not showing signs of the improvement we need or happening at an acceptable rate. We have not seen this improvement across habitats because nutrient loads need to be low enough for a biological response to occur. Nowhere in the current Watershed Agreement is there language that speaks to a specific point of attainment. Therefore, the WQSAM outcome is proposing quantitative SMART targets that will address water quality patterns needed to enhance ecosystem health. If the Management Board does not want to proceed with the quantitative targets, the WQSAM will have to revert to having activities for monitoring and assessment as the targets instead of tracking the more direct measures of the activities we take as partners.

All of the examples are still under construction, and we would need more time to speak with subject matter experts and workgroup members to confirm numbers and draft language.

Target Topic	EXAMPLE SMART Target	EXAMPLE Activity Target
Water Quality Standards Attainment Method	Establish partnership approved approaches to assess all criteria (DO, Clarity, CHLA) in all designated uses using all available data. For DO, have it approved by 2028 and reported on in 2030.	
Water Quality Standards Attainment Results	Through actions supporting the WIP Outcome, sustain Chesapeake Bay recovery rates of water quality standards attainment at historical rates of at least .2% - .4% percent per year as generated and reported by the multimetric water quality standards indicator.	Report on water quality standards attainment annually.
Nutrient and Sediment Loads and Trends in the Watershed	For all 123 stations, see improving trend conditions in X%, Y%, Z% in nitrogen, phosphorous, and sediment respectively by 2030.	On an annual basis for RIM stations, produce load and trend analysis. Conduct the same analysis for the nontidal network on a biennial basis.
Factors Impacting Tidal Waters	Need to speak with subject matter experts.	On an annual basis for tidal Bay and tributary stations, produce trend analysis.