Monitoring Meeting

April 2, 2025

Water Quality Standards Attainment and Monitoring

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WQSAM

- Consensus on update for WQSAM!
- Overall:
  - Update – 13
  - Reclassify – 3
  - Remove – 2
  - Consolidate – 2
  - Replace 1
  - Consensus but needs more follow up - 10

Outcome vs. Output

- Current “outcomes” are a combination of outcomes and outputs and activities (See ERG Program Evaluation)

Outcome	ERG Comments	S	M	A	R	T	Overall
2025 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 Total Maximum Daily Load (TMDL) document.	The outcome statement meets the SMT criteria ERG assessed. CP contains criteria for assessing this outcome. ERG notes, however, that the term “practices and controls” is ambiguous and could be better defined.	✓	✓			✓	✓
Water Quality Standards Attainment and Monitoring 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.	The outcome statement contains no specific or measurable elements and does not have a timing. Additionally, the second aspect (report annually) represents an output.	x	x			x	x

Outcome vs. Output

- Current “outcomes” are a combination of outcomes and outputs and activities (See ERG Program Evaluation)
- Understanding the differences between outcomes and outputs will help classify them and draft the updated outcomes
- Considerations will April 10th

Guidance: Outcome

- The change in state we aim to influence or the future state we aspire to reach as a consequence of our actions and their outputs

- Long-term benefits and results

Guidance: Output

- The more direct products of the actions we plan for and take as partners
- Shorter-term steps and results: this is the place to be specific, measurable, achievable, relevant, and time bound as possible

Guidance: Example

Oyster Outcome

Outcome: Continually increase finfish and shellfish habitat and water quality benefits from restored oyster populations

Outputs: Restore native oyster habitat and populations in 10 tributaries by 2025, manage protection of habitat

Guidance: Agreement

Option A:

- Agreement – All high level Outcomes
- Logic & Action/Work plans – Associated Outputs & Actvities

Option B:

- Agreement – Outcome/Output “sandwiches”
- Logic & Action/Work plans – Activities

Option C:

- Agreement – Outcome
- Separate Partnership Document: Outputs
- Logic & Action/Work plans – Activities

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.

Example Logic Model: VA

- **Outcome**: Evaluate the ability of current water quality monitoring networks to characterize living resource habitats within the Bay and its tidal tributaries. Support jurisdictional partners who report on the attainment of applicable Bay DO criteria, by collaborating on development of consistent assessment methodologies that use all available data by 2030 and in every even numbered year after.
- **Outputs**: Establish a partnership-agreed-upon approach to assessing all Bay DO criteria by 2028 for reporting by 2030. Evaluate and make recommendations to ensure current water quality monitoring networks are fully able to characterize all living resource habitats of the Bay and tributaries by 2028.
- **Activities**: Re-evaluate temporal, spatial, and parametric coverage of monitoring networks every 5 years to determine if needs are met for assessment of applicable Bay criteria. Report trends in water quality every 3 years.

Example Logic Model: Based on MB Guidance

- **Outcome**: Reduce pollutants, limit contaminants, and improve water quality in the bay and watershed.
- **Output:** Meet nitrogen, phosphorus and sediment loading targets as expressed by the long-term Watershed nontidal network water quality monitoring program with above fall line measures and supplemented by model estimates with below fall-line estimates.
- **Output:** Achieve and maintain dissolved oxygen, water clarity, and chlorophyll a standards for all 92 segments in the tidal waters of Chesapeake Bay based on annual water quality monitoring data collections.
- **Activities:** Core network maintenance, gap analyses and network development, funding strategy development and application, science advances on monitoring and analysis approaches for tidal and nontidal, engaging partners in development and evolution of networks and analyses

Example Logic Model: MD

- **Outcome:** Establish and continually improve a comprehensive, coordinated monitoring strategy and criteria assessment methods in collaboration with the Chesapeake Bay partnership. Assess all Bay water quality standards to track trends in water quality improvements and the attainment of criteria in Bay ecosystems. Report to the public on the progress of water quality trends and criteria attainment status every three years.
- **Outputs:** Comprehensive and coordinated monitoring network that is fully able to characterize all living resource habitats of the Bay and assess for all Bay water quality criteria; A partnership-agreed-upon approach to assessing all Bay DO criteria by 2028 for reporting by 2030; Data and consistent assessment methods on the status of Bay ecosystems that can be used to evaluate Bay management efforts; IR and water quality trend reports (Coordination and consistency between regulatory Bay State reporting needs (IR) and CBP reporting needs)
- **Activities:** Secure funding for monitoring; QAQC; Develop consistent Bay criteria assessment methodologies; Complete data assessment and reporting; continual assessment and improvement of monitoring networks; Collaboration and continual meetings with partnership to maintain consistency on monitoring activities and objectives

Overview

Commonalities

- Assess Bay water quality standards
- Consistent methodologies for assessing water quality criteria
- Core network maintenance and reevaluating networks on the same timeframe
- Funding for monitoring
- Collaboration between states, community groups, and Bay Program
- Leveraging existing networks

Differences

- Outcomes written as activities
- Focus more on tidal and not nontidal
- Time bounds
- Focus on DO; others focus on DO, CHLA, Water Clarity
- Assess ALL water quality standards
- SMART