Chesapeake Bay Program Beyond 2025 Evaluation

Final Report

Prepared for
Chesapeake Bay Program
Beyond 2025 Steering Committee

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Executive Summary

Overview

***Please note**: Throughout this report, the term Chesapeake Bay Program (CBP) is used to mean the partnership as defined in the Clean Water Act. ERG also uses the term "the Program" to also refer to the CBP (as defined under the Clean Water Act). When needed, ERG refers the Chesapeake Bay Program Office (CBPO) explicitly using CBPO.*

This report provides a summary of the work Eastern Research Group, Inc. (ERG) performed for the Chesapeake Bay Program (CBP) Beyond 2025 Steering Committee (SC). ERG was tasked with performing a program evaluation as part of the Beyond 2025 effort. ERG was tasked with answering three broad evaluation questions:

- Evaluation Question (EQ1). To what extent does the current organizational structure of the Program and adaptive management framework used by the Program support: (1) effective science-based decision-making, (2) outcome attainment, (3) collaboration, (4) use and dissemination of science, and (5) functioning as a partnership? If so, why? If not, why not? What aspects of the structure and processes need to be kept or changed to support those aspects?
- EQ2. To what extent does the Program know the external decision-makers and stakeholders it needs to reach? To what extent does the Program understand and support the needs of the decision-makers and stakeholders inside and outside the Program? To what extent is the Program providing decision-makers and stakeholders inside and outside the Program with the information needed to assist the Program in attaining its Agreement Outcomes?
- EQ3. What is the unique contribution of the Partnership in terms of outcome/goal attainment (i.e., the value-added)? Is the program investing in the appropriate outcomes and goals? Are there missing goals and/or outcomes?

To answer these questions, ERG reviewed a set of key documents (content analysis), held a series of groups discussions (with some additional follow-on discussions), and performed an outcome structure assessment.

The reader should note that many of the findings and considerations relate to issues needing attention by the SC and the Program as a whole. In our work, many areas of Program success were highlighted by group participants. Our focus, however, was to highlight areas where improvement could be made to improve Program functioning.

Statements of Findings

Based on our collection of information and the processing of that information ERG has found:[1]

- F1: The Program and its key components are viewed as being complex and the level of complexity is a concern to both internal and external stakeholders.
- F2: There is a concern with respect to the transparency of the Program.
- F3: There is a perception that the voices of external stakeholders are not being listened to.

[1] Details supporting these assertions can be found in Section 4.0.

- F4: The Program operates in a set of silos and these silos decrease the ability of the Program to operate effectively as a partnership.
- F5: The Program components operate in a situation of constrained capacity in terms of both personnel time and funding.
- F6: Combined finding – The combined impact of complexity (F1), concern over transparency (F2), perception of not listening to external stakeholders (F3), siloed operations (F4), and constrained capacity (F5) are interrelated and have a compounding effect that collectively exacerbates impacts to the Partnership's overall effectiveness.
- F7: The intent of the Strategy Review System (SRS) process is valued by internal stakeholders but is not meeting (or attaining) its full potential.
- F8: There is a shared vision for greater integration and application of social science to improve Program effectiveness.
- F9: The Program appears to be trying to do too many things.
- F10: In many cases, there is a disconnect between the actions being performed by the Program and goal/outcome attainment.
- F11: The Program's logical outcome structure contains components that are not defined properly as outcomes and lack measurable qualities.
- F12: The Program has produced a vast amount of data and scientific findings, reports, and meeting materials, but it can improve access to that information.

Considerations for the Steering Committee

Based on the findings, ERG developed a set of considerations for the SC. ERG uses "considerations" to describe our recommendations to the SC since the SC will take our work and develop its own recommendations to the Principal Staff Committee (PSC). Thus, to avoid any confusion, ERG used the term "considerations" in place of what usually be referred to as "recommendations" in a report such as this.

The SC should consider:[2]

- C1. Ensuring that the Program's logic model is (1) based on best practices in logic model development and (2) current and known to internal stakeholders.
- C2. Reducing the number of outcomes in any changed or future Agreement to better focus the Program at achieving its outcomes.
- C3. Exploring ways to streamline and simplify the Program's organizational structure to reduce its complexity.
- C4. Placing an emphasis on eliminating a siloed approach to Program design.
- C5. Identifying need for and ways to improve Program transparency to all stakeholders.
- C6. Ensuring an accessible data and information repository.
- C7. Increasing the use of social science toward achieving Program outcomes.
- C8. Allowing for flexibility in the SRS review cycle.

[2] Details on these considerations appears in Section. 5.0.

- C9. Making recommendations to ensure the Management Board accesses the appropriate expertise and experience during the SRS process.
- C10. Continuing to reach out to entities and stakeholders that the Program has not traditionally reached well in the past to allow consideration and incorporation of their viewpoints.
- C11. Finding ways to ensure those working on Program activities are supported in their work.

1.0 Overview and Project Components

1.1 Overview

The Chesapeake Bay Program (CBP) Executive Council (EC) charged the Principal Staff Committee (PSC) with charting a course to 2025 and beyond. The CBP is defined as the partnership of signatories to the Chesapeake Watershed Agreement, as defined under the Clean Water Act (CWA). The EC Charge called for two separate efforts: "Reaching 2025" and "Beyond 2025". This report falls under the Beyond 2025 effort. The CBP Management Board (MB) also formed a Steering Committee (SC) for the Beyond 2025 effort and EPA's Chesapeake Bay Program Office (CBPO) tasked Eastern Research Group, Inc. (ERG) with developing an evaluation of the structure and functioning of the CBP. ERG was contracted by EPA/CBPO to perform this work and was asked to provide independent evaluation services on behalf the of the SC.[3]

The reader should note that many of the findings and considerations relate to issues needing attention by the SC and the Program as a whole. In our work, many areas of Program success were highlighted by group participants. Some examples of successes highlighted in our group discussions included collaborative efforts that involved joint problem-solving, resource sharing, and mutual learning, outcome attainment that was highlighted in the Reaching 2025 report, workgroups that perform tasks at the local level, educational modules that have built scientific literacy, and listening sessions that have been focused on learning what has worked and what has not worked. Finally, some group participants mentioned the fact that the Program is known internationally is a sign of its success at addressing a complex set of problems facing the Bay.

This section begins by discussing the evaluation questions for this effort. Evaluation questions form the basis of data collection and analysis for any evaluation effort. Next, this section discusses the scope implied by the evaluation questions. The scope of the work will dictate the areas where ERG will provide considerations for the SC. Finally, this section introduces the project components and discuss how they fit together and also discuss the structure of this report.

1.2 Evaluation Questions

To develop the evaluation questions, ERG reviewed a number of key documents and reports which were listed in ERG's Evaluation Plan for this work. In addition to this review of background materials, ERG also held scoping sessions with subsets of the Steering Committee (SC) to discuss the EC charges and how the SC interpreted the charges. Each discussion focused on definitional issues, interpreting specific charges provided by the EC, and discussing broader issues.

Following those meetings, ERG developed a set of themes reflecting the discussions across the meetings. Based on those themes and the review of background materials, ERG identified a set of draft

[3] ERG's work was funded under EPA's Conflict Prevention and Resolution Contract (CPRC). We also note, for transparency, that ERG has been an EPA contractor for close to 40 years and holds contracts with EPA worth more than $500 million. To mitigate any conflicts, ERG's evaluation staff on this contract follow the American Evaluation Association's (AEA's) Guiding Principles and the follow the Office of Management and Budget Evidence Act Guidelines for evaluation work.

evaluation questions to consider and provided those in a draft plan. ERG then solicited feedback on the draft plan from SC members using an online form as well as holding two additional scoping sessions on the questions and plan. Finally, ERG presented a revised set of questions at the September SC meeting, made revisions to the questions during the meeting, and then obtained SC approval to move forward.

The final questions ERG identified reflect areas where ERG expects it can provide the most value to the program in performing this evaluation, in that they are organizational in nature and could benefit from a third-party perspective. The three questions, a justification for each, and some and associated definitions are below.

Evaluation Question (EQ1). To what extent does the current organizational structure of the Program and adaptive management framework used by the Program support: (1) effective science-based decision-making, (2) outcome attainment, (3) collaboration, (4) use and dissemination of science, and (5) functioning as a partnership? If so, why? If not, why not? What aspects of the structure and processes need to be kept or changed to support those aspects?

Purpose and Justification

This question looks at the structure and processes that the CBP uses to meet its outcomes and goals. The program functions as a distributed partnership and uses a number of teams, committees, and working groups to accomplish its goals. The partnership also has a set of processes in place (formal and informal) that defines how the partnership functions. Understanding how the structure of the program and its associated processes enable or inhibit effective outcome and goal attainment will be important in moving beyond 2025.

Definitions

- *Structure:* All levels including and below the Management Board (e.g.,, Teams, Committees, Workgroups, Scientific, Technical Assessment & Reporting (STAR) team, and advisory committees), including how the Management Board interacts with levels above and below it.
- *Processes:* The processes specified in the Governance document (SRS, etc.), as well as other informal processes to be identified as work progresses.
- *Decision-making* defined as any decisions (e.g., setting priorities, allocating funding) made by Program entities in administering the Program (excluding decisions where the Program has no/little control, e.g., state laws).

EQ2. To what extent does the Program know the external decision-makers and stakeholders it needs to reach? To what extent does the Program understand and support the needs of the decision-makers and stakeholders inside and outside the Program? To what extent is the Program providing decision-makers and stakeholders inside and outside the Program with the information needed to assist the Program in attaining its Agreement Outcomes?

Purpose and Justification

In order to achieve the outcomes and goals of the Agreement, the CBP will need people and entities outside of the program to make decisions and take actions that contribute the program's outcomes.

Furthermore, the people and entities who live and exist in the watershed are stakeholders just by being in the watershed; communicating results to them is important. During the scoping discussions, there was significant discussion around how to effectively reach and communicate with external stakeholders. The SRS Biennial meeting report also extensively discussed the need to reach external stakeholders effectively.

Definitions

- *Stakeholders:* Individuals or entities who/which are external to the Program that have an interest in the Program's goal attainment, primarily focusing on those individuals or entities who reside or exist within the watershed.
- *Decision-makers:* Individuals or entities who/which are external to the Program who/which make decisions that can impact the Program's goal attainment. This includes (but not limited to) federal, state, and local government officials, businesses, landowners, farms and other businesses, and individuals living in the watershed.
- *External to the Program:* Entities or individuals that are not regular participants in Program meetings and/or processes.
- *Information:* Materials and communications that are distributed or could be distributed by the Program including science-based information and/or outreach materials.
- *Decisions:* Actions that could be taken (or not taken) that would impact the Program's goal attainment. (With some limits on what could be reasonably be impacted by the Program.)

EQ3. What is the unique contribution of the Partnership in terms of outcome/goal attainment (i.e., the value-added)? Is the program investing in the appropriate outcomes and goals? Are there missing goals and/or outcomes?

Purpose and Justification

This question is designed to focus on how CBP activities contribute to outcome and goal attainment and the value that the Program brings to goal/outcome attainment. The question also addresses the appropriateness and completeness of the current goals and outcomes. We note that in addressing this question, ERG focused on the outcome structure of the Program as defined in the Agreement and assessed that structure against standard performance measurement good practices. ERG determined that an outcome-based assessment would better serve this report rather than trying to answer this question as written.

1.3 Scope

The evaluation questions approved by the SC indicate a scope that is focused on how the CBP is organized and operates, with a focus on its partnership and collaboration. The first question (EQ1) is focused *inward* on the program and the second question (EQ2) has a more *external* focus. The definitions provided under EQ1 and EQ2 help define the scope. EQ3, on the other hand, is focused on the outcome structure of the Program (as delineated in the 2014 Chesapeake Bay Agreement).

A key scope element of this work is that ERG was tasked with focusing on the organizational structure of the Program and how it operates internally and externally. This was taken to exclude:

- An assessment of the efficacy or effectiveness of the 2014 Chesapeake Bay Agreement. The Reaching 2025 work focused on outcome and goal attainment under the Agreement. ERG's work under EQ3 provides an assessment of the ways in which goals and outcomes are structured and written in the 2014 Agreement with an eye toward assisting the Program in the time period after 2025 (e.g., under an enhanced, modified, or new agreement).

- Input on an enhanced, modified or new Agreement. Our work under this project, and in particular under EQ3, is not meant to provide input into specific goals or outcomes for an enhanced, modified or new Agreement. EQ3's focus is to provide the SC with an assessment of the current goals and outcomes are structured and to provide some guidance on how future goals and outcome could best be improved, re-written or structured.

- EPA's authorizations or appropriations. The scope defined by the evaluation questions does not include EPA's or other federal agencies' authorizations or authorized funding. Authorizations and appropriations are the purview of Congress.

1.4 Project Components and Analytical Framework

This section briefly describes the project components (methods) and discusses how ERG used those components to develop a set of considerations for the SC. First, there are three main research methods in this work:[4]

- Content analysis - A review of key documents provided by the Program.
- Small group discussions – A series of group discussions with key informants using a structed set of questions.
- Outcome structure assessment – A review of the Program's outcome structure, as defined in the Agreement, from a best practices viewpoint.

The project components are described in Section 2.0. After completing these components, ERG identified *themes* (e.g., common occurrences, similarities in ideas/thoughts) for each component separately (Section 3.0). Next, looking across these themes, ERG identified *findings* that arose from looking across the themes from all of the components (Section 4.0). Finally, based on the findings, ERG proposed a set of considerations for the SC to contemplate (Section 5.0).

ERG uses "considerations" to describe our recommendations to the SC since the SC will take our work and develop its own recommendations to the PSC. Thus, to avoid any confusion, we use the term "considerations" in place of what usually be referred to as "recommendations" in a report such as this.

[4] We note that our original Evaluation Plan had also included performing process mapping for key processes. This was not included in the final set of project components since the group discussions yielded significant insights and we felt the process mapping would not have added much to those insights.

2.0 Approach

This section describes the methods ERG used to develop findings under this project. As noted above, the methods consist of a content analysis, small group discussions, and an outcome assessment. Each are described below.

2.1 Content Analysis

A content analysis is a review of documents and other sources designed to extract key points that relate to a set or pre-determined objectives. For this work, the objective was to provide data and information related the evaluation questions[5] described in Section 1.2. In performing the content analysis, ERG reviewed a set of documents identified by the SC for this project (see Appendix A). Two ERG analysts (separately) reviewed each of the documents and identified aspects of the documents that addressed the evaluation question topics. The analysts then compared their assessment and developed a set of combined themes reflecting how each document addressed the evaluation questions and then a set of themes across the documents.

2.2 Group Discussions

A key component of the methods for this work was a set of discussions with CBP staff, partners, and stakeholders covering the jurisdictions, GITs, STAR, the advisory committees (LGAC, STAC, and SAC), SET, federal agencies, at-large SC members, and Tribal entities. ERG also held a separate, more focused, meetings on the SRS process, CBP funding flows, and the use of science in the Program. Similar to the content analysis, ERG's analysts reviewed the notes from the group discussions and developed a set of themes reflecting the outcomes from the discussions.

2.3 Logic Model and Outcome Assessment

Our logic model and outcome assessment focused primarily on assessing outcomes, rather than a full assessment of the program logic model. A logic model assessment was not performed since the Program does not have a logic model representing its goals and outcomes. On the other hand, the outcome structure of the Program is well-defined in the Agreement and forms the basis of the Program's operations. Thus, ERG focused resources on reviewing that structure.

Our approach to reviewing the outcome structure was to apply the principles of the sound performance measurement. As such, ERG reviewed each outcome using a limited version of the SMART criteria. Specifically, well-written outcomes should be:[6]

- **Specific**. The outcome should reflect an explicit objective that provide details on for what and for whom the work is being performed.

[5] For the content analysis, our focus was solely on EQ1 and EQ2.

[6] The SMART criteria are well-known and documented in performance management literature. A good source of information on these criteria are the Centers for Disease Control's (CDC's) publications on good performance measurement. A particularly relevant reference can be found here.

- **Measurable**. There should be a clear way to measure the outcome and data should be available to support measurement.
- **Achievable**. The outcome should be something the program can reasonably achieve.
- **Realistic**. The outcome should be achievable within the given the timeframe.
- **Time-bound**. There should a time frame specified for achieving the outcome.

To perform this analysis in this project, ERG reviewed each outcome for the Specific (S), Measurable (M), and Time-Bound (T) aspects. ERG did not assess Achievable (A) or Realistic (R) since those should be based on science-, environmental-, and policy-related factors that are beyond the areas where ERG can reasonably make assessments for this work. To further verify these assessments, ERG reviewed data and information on the Chesapeake Progress (CP) website for each outcome. In particular, ERG used CP to assess whether the outcome was defined sufficiently to be measured in a meaningful way.

ERG also assessed each outcome for whether it was truly an outcome or another logic model component (e.g., outputs). Each outcome was assigned a checkmark (✓) if ERG deemed it meeting the S, M, or T criteria and an "x" if it did not. Furthermore, for the checkmarks, ERG color-coded them as either green for "acceptable" or orange for "needs work". All x-marks were color coded as red. ERG also provided a brief comment on each outcome assessment.

ERG then gave each outcome an overall assessment based on the SMT assessments:

- Acceptable (checkmark and green)
- Acceptable, but needs work (checkmark and orange)
- Needs work to be a properly formulated outcome (x-mark and red)

3.0 Analytical Outcomes (Themes)

3.1 Content Analysis

A set of summary themes from the content analysis appears in Appendix A of this report. These themes reflect a summary of themes from the documents ERG reviewed. All told, the content analysis provided better background information for ERG to use in understanding the information from the discussion sessions. However, in some cases, the content analysis did provide additional evidence for ERG to use in developing our findings.

3.2 Group Discussions

Appendix B contains themes from each group separately. ERG is providing this level of detail since each group discussion contained detailed and nuanced information that ERG felt would be lost in a set of summary themes across all groups. Thus, ERG decided to include summary themes (one page each in most cases) from each group session to allow readers of this report to better understand the details from each group.

3.3 Logic Model and Outcome Assessment

The results of our outcome assessment appear in Table 1. As noted in Section 2.3, ERG assessed each outcome and placed each into one of three bins in an overall assessment. A summary of those overall assessment is as follows:

- Acceptable (checkmark and green) – 12 outcomes.
- Acceptable, but needs work (checkmark and orange) – 7 outcomes.
- Needs work to be a properly formulated outcome (x-mark and red) – 12 outcomes.

Next, ERG notes that most of the outcome statements are formulated with an objective followed by a more succinct statement of outcome. For example, the Oyster Outcome (one that ERG categorized as Acceptable) can be deconstructed as follows:

- **Title**: Oyster Outcome
- **Objective**: Continually increase finfish and shellfish habitat and water quality benefits from restored oyster populations.
- **Outcome statement**: Restore native oyster habitat and populations in 10 tributaries by 2025 and ensure their protection.

This structure represents a clear and concise approach to specifying outcomes and should be repeated in the future.

Table 1. SMART Assessment of CBP Program Outcomes in the 2014 Agreement

Outcome	ERG Comments	S	M	A	R	T	Overall
Blue Crab Abundance Outcome - Maintain a sustainable blue crab population based on the current 2012 target of 215 million adult females. Refine population targets through 2025 based on best available science.	This outcome statement meets the specific and measurable criteria but is not time-bound. The timing reflects a start and then when to re-assess.	✓	✓			x	x
Blue Crab Management Outcome - Manage for a stable and productive crab fishery including working with the industry, recreational crabbers and other stakeholders to improve commercial and recreational harvest accountability. By 2018, evaluate the establishment of a Bay-wide, allocation-based management framework with annual levels set by the jurisdictions for the purpose of accounting for and adjusting harvest by each jurisdiction.	*Note: This is marked as complete in CP.* This outcome statement can be viewed as a set of two outputs rather than a single outcome: (1) managing for a stable and productive crab fishery and (2) evaluating the establishment of a Bay-wide framework. The statement is time-bound for one output, however.	x	x			✓	x
Oyster Outcome - Continually increase finfish and shellfish habitat and water quality benefits from restored oyster populations. Restore native oyster habitat and populations in 10 tributaries by 2025 and ensure their protection.	The second sentence of the outcome statement meets the specific, measurable, and time-bound criteria. Criteria for assessing the outcome are available on CP.	✓	✓			✓	✓
Forage Fish Outcome - Continually improve the Partnership's capacity to understand the role of forage fish populations in the Chesapeake Bay. By 2016, develop a strategy for assessing the forage fish base available as food for predatory species in the Chesapeake Bay.	The outcome statement meets the SMT criteria ERG assessed. However, developing a strategy is an output and not an outcome.	✓	✓			✓	x
Fish Habitat Outcome - Continually improve effectiveness of fish habitat conservation and restoration efforts by identifying and characterizing critical spawning, nursery and forage areas within the Bay and tributaries for important fish and shellfish, and use existing and new tools to integrate information and conduct assessments to inform restoration and conservation efforts.	This outcome statement contains no specific, measurable, or time-bound aspects.	x	x			x	x
Wetlands Outcome - Continually increase the capacity of wetlands to provide water quality and habitat benefits throughout the watershed. Create or reestablish 85,000 acres of tidal and non-tidal wetlands and enhance the function of an additional 150,000 acres of degraded wetlands by 2025. These activities may occur in any land use (including urban) but primarily occur in agricultural or natural landscapes.	The outcome statement meets the SMT criteria ERG assessed. It was unclear from CP how creation/reestablishment is measured.	✓	✓			✓	✓
Black Duck - By 2025, restore, enhance and preserve wetland habitats that support a wintering population of 100,000 black ducks, a species representative of the health of tidal marshes across the watershed. Refine population targets through 2025 based on best available science.	The outcome statement meets the SMT criteria ERG assessed. However, CP notes "we do not currently have a method for tracking how many restoration acres result in quality habitat for black ducks."	✓	✓			✓	✓

Outcome	ERG Comments	S	M	A	R	T	Overall
Stream Health Outcome - Continually improve stream health and function throughout the watershed. Improve health and function of ten percent of stream miles above the 2008 baseline for the Chesapeake Bay watershed.	The outcome statement meets the SMT criteria ERG assessed. Methods to assess stream health are available on CP.	✓	✓			✓	✓
Brook Trout - Restore and sustain naturally reproducing brook trout populations in Chesapeake headwater streams with an eight percent increase in occupied habitat by 2025.	The outcome statement meets the SMT criteria ERG assessed. CP provides a criterion to assess whether habitat areas are contributing to the outcome.	✓	✓			✓	✓
Fish Passage Outcome - Continually increase access to habitat to support sustainable migratory fish populations in Chesapeake Bay freshwater rivers and streams. By 2025, restore historical historic fish migratory routes by opening an additional 132 miles every two years to fish passage, with restoration success indicated by the consistent presence of alewife, blueback herring, American shad, hickory shad, American eel and brook trout, to be monitored in accordance with available agency resources and collaboratively developed methods.	The outcome statement meets the SMT criteria ERG assessed and includes criteria for assessing the outcome in the statement.	✓	✓			✓	✓
Submerged Aquatic Vegetation (SAV) Outcome - Sustain and increase the habitat benefits of SAV (underwater grasses) in the Chesapeake Bay. Achieve and sustain the ultimate outcome of 185,000 acres of SAV Bay-wide necessary for a restored Bay. Progress toward this ultimate outcome will be measured against a target of 90,000 acres by 2017 and 130,000 acres by 2025.	The outcome statement meets the SMT criteria ERG assessed. CP provides a criterion to assess whether acres are contributing to the outcome.	✓	✓			✓	✓
Forest Buffer Outcome - Continually increase the capacity of forest buffers to provide water quality and habitat benefits throughout the watershed. Restore 900 miles per year of riparian forest buffer and conserve existing buffers until at least 70 percent of riparian areas throughout the watershed are forested.	The outcome statement meets the SMT criteria ERG assessed. CP contains criteria for assessing this outcome.	✓	✓			✓	✓
Tree Canopy Outcome - Continually increase urban tree canopy capacity to provide air quality, water quality and habitat benefits the watershed. Expand urban tree canopy by 2,400 acres by 2025.	The outcome statement meets the SMT criteria ERG assessed. CP contains criteria for assessing this outcome.	✓	✓			✓	✓
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 pollution load reductions necessary to achieve applicable water quality standards compared to 2009 levels.	*Note: This is marked as complete in CP.* 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.	✓	✓			✓	✓

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
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.	The outcome statement represents a set of outputs. The statement does not contain any specific, measurable, or time-bound aspects.	x	x			x	x
Toxic Contaminants Policy and 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 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.	The outcome statement represents a set of outputs. The statement does not contain any specific, measurable, or time-bound aspects.	x	x			x	x
Healthy Watersheds Outcome - 100 percent of state-identified currently healthy waters and watersheds remain healthy.	The outcome statement can be considered specific and measurable. The statement has an implied time-bound of 2025 or the end of the current Agreement. CP notes that each jurisdiction will define "healthy" for itself, but also notes there are issues in tracking status of the outcome.	✓	✓			✓	✓

Outcome	ERG Comments	S	M	A	R	T	Overall
Stewardship Outcome - Increase the number and diversity of trained and mobilized volunteers with the knowledge and skills needed to enhance the health of their local watersheds.	The outcome statement is not specific and is problematic for both the measurable and time-bound criteria. CP, however, contains details on how this outcome is measured (which also makes it specific) and a time frame tied to each time the outcome is measured. Nevertheless, the wording of the statement can be improved, and a more specific time frame selected.	✓	✓			✓	✓
Local Leadership Outcome - Continually increase the knowledge and capacity of local officials on issues related to water resources and in the implementation of economic and policy incentives that will support local conservation actions.	The outcome statement is not specific and is problematic for both the measurable and time-bound criteria. CP, however, contains details on how this outcome is measured (which also makes it specific) and a time frame tied to each time the outcome is measured. Nevertheless, the wording of the statement can be improved, and a more specific time frame selected.	✓	✓			✓	✓
Diversity Outcome - Identify stakeholder groups not currently represented in leadership, decision-making or implementation of current conservation and restoration activities and create meaningful opportunities and programs to recruit and engage these groups in the partnership's efforts.	The outcome statement is not specific nor measurable; the time-bound aspect can be considered each time the outcome is measured. CP does include information on how it is measured, the wording of the outcome statement does not match the measurement protocols.	x	x			✓	x
Protected Lands Outcome - By 2025, protect an additional two million acres of lands throughout the watershed—currently identified as high conservation priorities at the federal, state or local level—including 225,000 acres of wetlands and 695,000 acres of forest land of highest value for maintaining water quality. (2010 baseline year)	The outcome statement meets the SMT criteria ERG assessed. CP contains criteria for assessing this outcome.	✓	✓			✓	✓
Land Use Methods and Metrics Development Outcome - Continually improve our knowledge of land conversion and the associated impacts throughout the watershed. By December 2021, develop a watershed-wide methodology and local-level metrics for characterizing the rate of farmland, forest and wetland conversion, measuring the extent and rate of change in impervious surface coverage and quantifying the potential impacts of land conversion to water quality, healthy watersheds and communities. Launch a public awareness campaign to share this information with local governments, elected officials and stakeholders.	The statement does meet SMT criteria, as currently stated, this is an output statement focused on actions that CBP can perform itself.	✓	✓			✓	x

Outcome	ERG Comments	S	M	A	R	T	Overall
Land Use Options Evaluation Outcome - By the end of 2017, with the direct involvement of local governments or their representatives, evaluate policy options, incentives and planning tools that could assist them in continually improving their capacity to reduce the rate of conversion of agricultural lands, forests and wetlands as well as the rate of changing landscapes from more natural lands that soak up pollutants to those that are paved over, hardscaped or otherwise impervious. Strategies should be developed for supporting local governments' and others' efforts in reducing these rates by 2025 and beyond.	The outcomes statement represents a set of outputs. Additionally, the statement is so broadly worded it does not meet the specific criterion. Without meeting the specific criterion, the measurable criterion is also not met. The statement is time-bound.	x	x			✓	x
Public Access Site Development Outcome - By 2025, add 300 new public access sites, with a strong emphasis on providing opportunities for boating, swimming and fishing, where feasible. (2010 baseline year)	The outcome statement meets the SMT criteria ERG assessed. CP contains criteria for assessing this outcome.	✓	✓			✓	✓
Student Outcome - Continually increase students' age-appropriate understanding of the watershed through participation in teacher-supported, meaningful watershed educational experiences and rigorous, inquiry-based instruction, with a target of at least one meaningful watershed educational experience in elementary, middle and high school depending on available resources.	The statement is specific to some degree, but the caveat of "depending on available resources" reduces the specificity of the "one meaningful watershed educational experience" aspect. Although CP provides an approach to measuring the outcome (e.g., survey of local education agencies (LEAs)), the stated outcome implies for all students, making the use of a survey problematic for this outcome. It can be considered time-bound, however.	✓	✓			✓	✓
Sustainable Schools Outcome - Continually increase the number of schools in the region that reduce the impact of their buildings and grounds on their local watershed, environment and human health through best practices, including student-led protection and restoration projects.	The outcome is not specific but is both measurable and time bound. In terms of specificity, CP notes that no numerical target has been set and that an increase in the total is the target. CP contains information on how this is measured.	✓	✓			✓	✓

Outcome	ERG Comments	S	M	A	R	T	Overall
Environmental Literacy Planning Outcome - Each participating Bay jurisdiction should develop a comprehensive and systemic approach to environmental literacy for all students in the region that includes policies, practices and voluntary metrics that support the environmental literacy Goals and Outcomes of this Agreement	This statement is partly an outcome and partly an output. It can be viewed as an outcome if the CBP is targeting the jurisdictions to develop approaches. It can be viewed as an output as well since the jurisdictions are partners. Nevertheless, the statement is not specific (too general) and its measurement on CP does not meet the outcome statement (i.e., LEAs are surveyed for their preparedness for developing environmental literacy programs). The outcome should be rewritten in terms of the measurement approach which would most likely make if SMT.	✓	✓			✓	✓
Climate Monitoring and Assessment Outcome - Continually monitor and assess the trends and likely impacts of changing climatic and sea level conditions on the Chesapeake Bay ecosystem, including the effectiveness of restoration and protection policies, programs and projects.	The outcome statement is not specific and lacks measurability due to the lack of specificity.	x	x			✓	x
Climate Adaptation Outcome - Continually pursue, design and construct restoration and protection projects to enhance the resiliency of Bay and aquatic ecosystems from the impacts of coastal erosion, coastal flooding, more intense and more frequent storms and sea level rise.	The outcome statement is not specific and lacks measurability due to the lack of specificity.	x	x			✓	x

Key: ✓ = Meets SMT criterion, x = does not meet criterion. Green = acceptable, orange = needs work, red = did not meet criterion.

4.0 Statement of Findings

This section provides findings that ERG has gleaned from the set of project components that were performed. These have been numbered for reference.

F1: The Program and its key components are viewed as being complex and the level of complexity is a concern to both internal and external stakeholders. This was a repeated concern throughout the group sessions that ERG conducted and was mentioned in some form during almost all of the group sessions. The GITs were particularly one aspect where complexity was discussed. Specifically, the workgroup structure within the GITs, combined with some GITs overseeing several outcomes, led some to identify the GITs as particularly complex in structure. One GIT-related discussion referred to the GIT as a "plate of spaghetti" in its structural form. Although the GITs were called out with respect to complexity, other areas of the Program were also cited such as being able to understand how different parts of the Program link and work together. One (paraphrased) comment from a group discussion highlighted the overall theme:

> "*It's a very complex structure. Need to review workgroups and action teams to understand how everything fits together. There are pros and cons to the complex structure. Complexity is not necessarily a good thing, it can be needed to make things work, but doesn't necessarily make things better.*"

When speaking to those outside the Program, or those who are less involved in the Program on a daily basis, the level of complexity of the Program made it difficult for them to understand the Program as a whole.

F2: There is a concern with respect to the transparency of the Program. During the group discussions, the importance of transparency was mentioned in discussing aspects that make an effective partnership/collaboration. Group discussion participants noted that the criteria used by the Program to make decisions was often not clear and that budgets and funding decisions were not clear. Transparency was an issue specifically identified in regard to how the Program applied science in its decision-making. This does not imply that group participants felt the Program does not use science in decision-making. In fact, participants were clear that they felt the Program did apply science in its decision-making process and in particular models and monitoring data are used to support many decisions made by the Program. The concern was that the Program was not transparent in how science had contributed to the decision. Transparency was also cited as an issue in understanding how Goal Implementation Teams (GITs) function; specifically, in some GIT discussions, the participants felt they did not have a firm understanding of how GIT outside of their own functioned and some indicated they were unclear on how various workgroups under their GIT functioned. The perceived lack of transparency was noted as a hindrance to engaging a diverse set of stakeholders since it was unclear to those stakeholders how the Program operates.

F3: There is a perception that the voices of external stakeholders are not being listened to. Participants in the group sessions routinely identified this as an issue in the Program. Overall, this

manifested itself in relation to how the Program functions as a partnership and how it uses science in decisions.

F4: The program operates in a set of silos and these silos decrease the ability of the program to operate effectively as a partnership. The content analysis and the groups sessions each identified the Program operating as a set of silos. The discussions with the GITs tended to show that some GITs were unfamiliar with what other GITs were doing and that the GITs can be disconnected from the Management Board at times. The group sessions participants also, for the most part, felt the issue of silos was commonly known and recognized as an issue.

F5: The Program components operate in a situation of constrained capacity in terms of both personnel time and funding. The group session participants expressed concern of the idea that many Program participants, especially in the GITs and their associated work groups, were performing these duties beyond their normal work duties. Many participants indicated they felt like "volunteers" given that the work for the Program was beyond the duties specified in their roles. Participants noted that they were committed to protecting the Bay, but also clearly noted this aspect of the work.

> *"There are capacity limitations when staffing the GITs with the right people. It's not for lack of effort, but just a reality of the number of GITs and workgroups with such a limited pool of people to staff them. The structure makes it difficult to have sufficient capacity to move forward with all goals at the same time."*
> – Paraphrased quote from a GIT discussion group

F6: Combined finding – The combined impact of complexity (F1), concern over transparency (F2), perception of not listening to external stakeholders (F3), siloed operations (F4), and constrained capacity (F5) are interrelated and have a compounding effect that collectively exacerbates impacts to the Partnership's overall effectiveness. During the group discussion sessions, these five items were often discussed in tandem. For example, complex structures and a lack of transparency were often combined in discussions, lack of transparency and not listening to stakeholders were also seen as a combined issue, siloed operations and constrained capacity were linked. Each one of these five were often mentioned with others of the five. Given the interwoven nature of these findings, ERG suggests the need for these to be addressed in tandem, rather than individually.

F7: The intent of the Strategy Review System (SRS) process is a valued by internal stakeholders but is not meeting (or attaining) its full potential. First, the SRS process is cited as a strong aspect of the Program in both the content analysis and the group discussions. Group discussion participants noted that the SRS process, when instituted, brought the Program the ability to review its processes and work and to adjust as needed. As such, there was no indication that the SRS process should be abandoned. However, group discussion participants pointed out that the process tends to "die" at the Management Board level due to a lack of expertise and/or experience on the Management Board in the full set issues that must be addressed under the SRS. There is also concern that the cycle for reviewing progress under the SRS is too short. Participants noted that a two-year cycle of plan, implement, and review ends up spending more time in the review and plan stages than in implementation.

F8: There is a shared vision for greater integration and application of social science to improve Program effectiveness. The content analysis revealed a continued need for the use of social science in the Program. First, the content analysis involved ERG reviewing a full report reflecting the need. Second, the CESR report identified "implementation gaps" as a key component in why the Total Maximum Daily Load (TMDL) has not been met. In short, the implementation gap reflects the idea that voluntary best management practices (BMPs) were not being implemented at a rate that would help achieve the TMDL. The BMPs would need to be implemented by those in the watershed (e.g., landowners, farmers). As such, approaches would need to be developed to incentivize them to implement BMPs. Any approach that is based on voluntary implementation would benefit greatly from the use of social science. Finally, the small group discussions routinely mentioned social science as an area of need for the program, especially in contributing to the use of science in decision-making. ERG notes that the Program has actively used social science tools in the past and this finding is meant to reinforce the expressed need for its continued use in helping the Program achieve outcomes.

F9: The Program appears to be trying to do too many things. The Agreement contains 10 goals with 31 outcomes under those goals. During the group discussions, participants noted that the number of goals and outcomes can be problematic to handle effectively (see text box for sample quote). This is further exacerbated by the jurisdictions' priority to focus on water quality issues under the TMDL which comprises one goal and three outcomes. Participants also noted that GIT 5 has been tasked with four of the 10 goals, but some of the outcome under those four goals are handed by other GITs. This situation requires cross-GIT coordination that GIT 5 noted can be challenging. Our assessment of outcomes in Section 3 also found issue in the outcome statements being outputs in some cases and in a lack of measurability of some items. Although outputs are needed to attain outcomes, however, ERG's concern is that placing an output at the level of an outcome leads to less focus on actual outcomes.

F10: In many cases, there is a disconnect between the actions being performed by the Program and goal/outcome attainment. Logic models are a performance measurement tool that links a program's resources to activities, activities to outputs, outputs to outcomes, and outcomes to goals.[7] The goals and outcomes in the Agreement, however, are not explicitly linked to Program outputs and activities in a formal logic model. Furthermore, the participants in the group discussions noted that some activities identified by GITs and in the logic and action plans do not directly relate to goals and/or outcomes, or the noted the connection was not direct or clear. In some cases, participants indicated that certain outcomes were tangential to the ultimate goal of preserving and restoring the Bay.

F11: The Program's logical outcome structure contains components that are not defined properly as outcomes and lack measurable qualities. This was found during the group discussions and in ERG's review the outcome structure (Section 3). First, as noted above, a number of the outcomes in the current Agreement reflect outputs rather than outcomes. ERG notes the Kellogg Foundation guidance on logic model development[8] which states the following definitions:

[7] We note that EPA logic models sometimes include an intermediate linkage where outputs link to customers and then customers are linked to outcomes.
[8] We note that EPA's current guidance on logic model development relies on the Kellogg principles.

- "**Outputs** are the direct products of program activities and may include types, levels and targets of services to be delivered by the program." (page 2).
- "**Outcomes** are the specific changes in program participants' behavior, knowledge, skills, status and level of functioning. Short-term outcomes should be attainable within 1 to 3 years, while longer-term outcomes should be achievable within a 4 to 6 year timeframe. The logical progression from short-term to long-term outcomes should be reflected in impact occurring within about 7 to 10 years." (page 2).

As noted in our analysis of the Agreement's outcome structure, some items defined as outcomes are better defined as outputs. Furthermore, some items are also not defined in a manner to allow for measurement to be able to ascertain attainment or not.

F12: The Program has produced a vast amount of data, scientific findings, reports, and meeting materials, but it can improve access to that information. In discussing science, a number of group discussion participants noted that the Program's data, information, and scientific findings are vast. However, they also noted finding information can be difficult. This was noted in discussions with external stakeholders as well. In particular, a few participants noted that the Program often creates "micro-sites" on the overall website to house information. Participants also noted that this was something that could be improved.

5.0 Considerations

Based on the findings described in Section 4.0, ERG developed a series of considerations for the Beyond 2025 Steering Committee in making its own recommendations to the PSC. ERG notes that many of these considerations reinforce one another. Table 2 provides a crosswalk between the 11 considerations below and the 12 findings in Section 4.0. In the table, the checkmarks indicate which finding contributed to which considerations and a checkmark in a green cell indicate that specific finding was key to constructing the consideration.

Table 2. Crosswalk Between Findings and Considerations

Considerations	Findings											
	F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11	F12
C1	✓			✓					✓	✓	✓	
C2	✓			✓		✓			✓		✓	
C3	✓	✓		✓	✓	✓	✓		✓	✓	✓	
C4	✓	✓		✓	✓	✓				✓		
C5	✓	✓	✓	✓	✓	✓		✓		✓		
C6		✓	✓									✓
C7	✓		✓					✓				
C8	✓	✓					✓		✓			
C9		✓		✓			✓					
C10	✓	✓	✓		✓	✓		✓				
C11	✓			✓	✓	✓			✓			

Note: A "✓" indicates the finding contributed to the consideration while a "✓" in a green cell indicates that the finding was a key contributor to the consideration. Those not in a green cell are considered supporting findings.

Based on our findings, the SC should consider:[9]

C1. Ensuring that the Program's logic model is (1) based on best practices in logic model development and (2) current and known to internal stakeholders. [Key Findings: F10 and F11; Supporting Findings: F1, F4, and F9] Logic models work backward from the ultimate goals to appropriate activities incorporating a theory of change that reflects how outcomes can be obtained from activities and outputs. Logic models are tools to help programs focus on the key activities needed to attain outcomes and meet goals. When combined with a valid theory of change, a logic model lays out the pathways that a program should follow and the underlying assumptions to attaining outcomes. As such, a clear logic model would help the Program be focused on what can be achieved. As such, a well-defined logic model can assist the program in ensuring its goals and outcomes are achievable and lead to a more successful implementation. ERG understands that a logic model exists, but many in the Program were not aware of the model. Additionally, in comments on the Interim Report, many commentors indicated they were unfamiliar with the concept of a logic model. As such, the Program should ensure the current model is updated (if needed) to meet Program objectives (including input from a broad range of internal stakeholders) and that the model is made available to internal and external stakeholders.

[9] The key and supporting findings contributing to each consideration appear in hard brackets after the stated consideration.

The Kellogg Foundation provides well-accepted approaches for developing clear logic models. ERG notes that outcomes in logic models are specified at multiple time scales (e.g., short-term, long-term). For the CBP, ERG recommends a logic model that would have three levels of outcomes:

- *Long-term*: These outcomes should reflect results the Program would expect to occur in 10 or more years.
- *Medium-term*: These outcomes should reflect results the Program can reasonably achieve within a specific time frame tied to the Agreement.
- *Short-term*: These outcomes should reflect results that are needed for the medium-term outcomes to be achieved, generally attainable within 1-3 year time frames.[10]

Finally, a logic model needs a valid and reasonable theory of change woven in. A theory of change provides the reasoning on why and how program activities will lead to outcomes. That is, it is not sufficient to say "producing output X will lead to outcome Y"; there needs to be a clear and valid linkage on why X leads to Y.

We also note that a program-level logic model is different from the current Workgroup Work Plans (formerly Logic and Action Plans). The Work Plans reflect what work will be done over a certain time frame. A program-level logic model is designed to reflect the logic and associated theory of change that will translate actions into outputs and ultimately outcomes and goals.

C2. Reducing the number of medium- or long-term outcomes in any changed or future Agreement to better focus the Program at achieving its outcomes. [Key Findings: F9; Supporting Fundings: F1, F4, F6, and F11] This consideration builds on the prior one regarding logic models. The current outcome structure for the Program contains 31 outcomes organized under 10 goals. As ERG noted in our analysis of the outcome structure, however, some of the outcomes are actually outputs. Regardless, tracking 31 outcomes increases Program complexity and contributes to the Program lacking focus. Developing the logic model (and associated theory of change) described above should help reduce the number of outcomes; however, ERG is explicitly suggesting that the SC consider recommending limiting the number medium and long-term outcomes. This will help focus the Program and reduce its complexity. This consideration is explicitly suggesting that the Program may need to make some hard decisions on where it should focus.

C3. Exploring ways to streamline and simplify the Program's organizational structure to reduce its complexity. [Key Findings: F1, F4, and F5; Supporting Fundings: F2, F6, F7, F9, F10, and F11] Each GIT lists 20-30 members and a set of workgroups and action teams under each GIT. The Program is targeting 31 outcomes organized under 10 goals. Our group discussions found strong evidence that the Program's complex structure is seen as problematic to Program participants. As such, ERG expects some reduction in Program complexity will benefit the functioning of the Program. Our consideration above to reduce the number of goals or combine goals will help by providing increased focus. One approach to consider to reduce complexity (in line with reducing the number of outcomes) is to organize the Program around

[10] We note that, depending on the outcome, some medium-term outcomes may not need short-term outcomes.

outcomes (e.g., Outcome Teams). ERG notes that the Program currently has six GITs, and ERG expects that more than six outcome-related teams would be needed. However, most of the GITS are responsible for multiple goals and several outcomes which is then reflected in the number of staff on each GIT. ERG posits that having more focused teams will reduce complexity even if the number of future teams exceeds the current number of GITs. The idea is to focus on outcomes and not goals. Reducing the number of outcomes provides a focus on attaining fewer outcomes. Ideally, those outcomes are linked to goals using a strong theory of change based in a logic model.

C4. Placing an emphasis on eliminating a siloed approach to Program design. [Key Findings: F4 and F5; Supporting Fundings: F1, F2, F6, and F10] As currently constructed, the Program cannot avoid its siloed structure. There are 31 outcomes requiring attention and staff involved in the GITs (and other Program components) are often performing their roles in the Program "in addition to" their current job functions. Although some CBPO staff work in a cross-team and matrixed approach, there needs to be more use of staff that work in those roles. For example, the Program could rotate some individuals over GITs (or outcome teams) on a pre-specified frequency to allow discussions, issues, and perspectives to flow between teams. In short, the SC should consider ways to increase meaningful interactions between the various Program components.

C5. Identifying need for and ways to improve Program transparency to all stakeholders. [Key Findings: F2 and F5; Supporting Fundings: F1, F3, F4, F6, F8, and F10] As many of our group discussion participants noted, transparency is key for a well-functioning Partnership that fosters collaboration. ERG found, however, that stakeholders have concerns about the Program's transparency, especially around how science is being used to inform decisions. As such, program transparency should be even more emphasized in moving Beyond 2025. One potential approach in relation to Program decisions would be to provide some form of a "Decision Summary" that succinctly describes the issues, the options, relevant background, the Program's decision, and the reasons for the decision. ERG notes that requiring a Decision Summary for all or even most decisions of the Program may be infeasible; however, the Program could require this for decisions made by certain groups and based on certain criteria.

C6. Ensuring an accessible data and information repository. [Key Findings: F12; Supporting Fundings: F2 and F3] As noted in the findings, a number of group discussion participants noted that the Program has a vast amount of data, scientific information, reports and meeting materials; however, much of that information can be difficult to find. ERG expects some form of repository may be a good idea. An example of a well-designed and well-regarded repository is NOAA's Digital Coast. ERG notes that the Program has some tools in place; however, developing a more centralized tool to ensure access is what we are recommending. We also note that some efforts are being made by the Program to develop such centralized repositories and ERG's consideration supports those efforts.

C7. Increasing the use of social science in achieving Program outcomes. [Key Findings: F8; Supporting Fundings: F1 and F3] Social science is a set of theories, tools, and approaches that can improve conservation and restoration outcomes by better understanding people and their values, motivations, and barriers to taking action. Most of the Watershed Agreement goals and outcomes rely on the actions

of individuals of the Bay region, therefore the application of social sciences is necessary to develop programs and policies that align with the residents of the watershed.

C8. Allowing for flexibility in the SRS review cycle. [Key Findings: F7; Supporting Fundings: F1, F2, and F9] As noted in the findings, the SRS process was seen as being inflexible in some of our discussions. In short, the process uses a two-year time frame that led some to indicate they were always in a review mode rather than an implementation one. As such, each outcome should set its own frequency for the SRS process and provide a justification for that frequency based on the science and/or implementation time frames.

C9. Making recommendations to ensure the Management Board accesses the appropriate expertise and experience during the SRS process. [Key Findings: F7; Supporting Fundings: F2 and F4] One issue ERG heard in the discussion sessions in relation to the SRS process was that the Management Board was too narrowly focused to fully consider the full slate of issues coming from the GITs. For a process such as the SRS to function effectively, the final decision-makers must be able to fully assess issues before it. The Management Board should be encouraged to involve the appropriate supporting staff and expertise to assist in assessing the decisions before it in the SRS process.

C10. Continuing to reach out to entities and stakeholders that the Program has not traditionally reached well in the past to allow consideration and incorporation of their viewpoints. [Key Findings: F3 and F5; Supporting Fundings: F1, F2, F6, and F8] To begin our discussion with the environmental managers for Tribal entities resulted in a clear desire from those individuals to be more involved in the Program. The Tribal entity staff ERG talked with demonstrated a clear disconnect from the Program, but also a desire to be included. Conversations with the CBPO indicated that the Program has made efforts to include the Tribal entities. Thus, it seems further efforts on the part of the Program to make efforts to include the Tribes would be warranted. However, we note that the Program should also identify groups it is not reaching well, assess whether it needs to reach those groups, and then develop a plan to reach those groups. This may include vulnerable populations, historically disadvantaged groups, and other sets of stakeholders who live in the watershed.

C11. Finding ways to ensure those working on Program activities are supported in their work. [Key Findings: F5 and F6; Supporting Fundings: F1, F4, and F9] As discussed above, our group discussions found that many individuals working on Program activities are performing those duties “in addition to” their regular job duties. This aspect of the work should be addressed by the SC in some form to ensure staff working on these teams are fully engaged in the work and reduce potential burnout. This may include a request by the Program to jurisdictions and other partners to include work on the Program explicitly in job descriptions.

APPENDIX A:
Summary Themes from Content Analysis

ERG reviewed the following for this report (Material Title (Author(s), Affiliation, Publication Date)):

- Chesapeake Bay Watershed Agreement (Chesapeake Bay Program Partners, 2014)
- Chesapeake 2000 (Chesapeake Bay Program Partners, 2000)
- Governance and Management Framework for the Chesapeake Bay Program – Version 5.0 (Chesapeake Bay Program Partners, 2022)
- Achieving Water Quality Goals in the Chesapeake Bay: A Comprehensive Evaluation of System Response (Scientific and Technical Advisory Committee Publication 23-006, 2023)
- Charting a Course to 2025: A Report and Recommendations for the Chesapeake Executive Council on How to Best Address and Integrate New Science and Restoration Strategies Leading up to 2025 (Draft) (Chesapeake Bay Program, 2023)
- Rising Watershed and Bay Water Temperatures: Ecological Implications and Management Responses (Scientific and Technical Advisory Committee Publication 23-001, 2023)
- Enhancing the Chesapeake Bay Program Monitoring Networks: A Report to the Principals' Staff Committee (Chesapeake Bay Program, 2022)
- Chesapeake Governance Study: Report of 2021 Decision-Maker Interview Results (D.G. Webster, Dartmouth College, 2023)
- Recognizing political influences in participatory social-ecological systems modeling (Lim, T. C., Glynn, P. D., Shenk, G. W., Bitterman, P., Guillaume, J. H. A., Little, J. C., & Webster, D. G., Socio-Environmental Systems Modelling, 2023)
- Enhancing Chesapeake Bay Partnership Activities by Integrating Social Science (Wainger, L. et al., University of Maryland Center for Environmental Science, 2023)
- Retrospective on Lessons Learned from the Chesapeake Bay Program Strategy Review System's 3rd Cycle with Suggested Adaptations to Address the Issues (Chesapeake Bay Program, 2023)
- Café Summaries and Report Products from Chesapeake Bay Program Strategy Review System's 3rd Cycle Biennial Meeting (Chesapeake Bay Program, 2023)
- Using Ecosystem Services to Increase Progress Toward, and Quantify the Benefits of, Multiple CBP Outcomes: Day 1 Workshop and Day 2 Workshop (Scientific and Technical Advisory Committee, 2023)
- Linking Soil and Watershed Health to In-Field and Edge-of-Field Water Management (Scientific and Technical Advisory Committee, 2020)
- Using Local Monitoring Results to Inform the Chesapeake Bay Program's Watershed Model (Scientific and Technical Advisory Committee, 2023)
- Advancing Monitoring Approaches to Enhance Tidal Chesapeake Bay Habitat Assessment (Scientific and Technical Advisory Committee): Session 1: SAV (2021), Session 2: Chlorophyll a (2022), and Session 3: Dissolved Oxygen (2022)

EQ1. **To what extent does the current organizational structure of the Program and adaptive management framework used by the Program support: (1) effective science-based decision-making, (2) outcome attainment, (3) collaboration, (4) use and dissemination of science, and (5) functioning as a partnership? If so, why? If not, why not? What aspects of the structure and processes need to be kept or changed to support those aspects?**

1. ***Effective science-based decision-making***
    - The Program attempts to base decisions in science; however, the scientific knowledge base would benefit greatly from expansion.
        - The Program could benefit from increased research and funding to help build understanding in areas where there are gaps to improve science-based decision-making capacities.
    - At times, Program participants are limited in their understanding of scientific practices, particularly in social science and the use of computer models, which prevents the Program from using the best available science when decision-making.
2. ***Outcome attainment***
    - The Program has been partially effective at attaining desired outcomes.
        - Too many resources are focused on cataloguing implemented practices as opposed to measuring and achieving ecological outcomes.
        - The Program needs longer timeframes to successfully achieve outcomes. Funding, staffing capacity, and technical assistance availability limit the Program's reach, particularly regarding community engagement and reaching ambitious goals.
    - The Program does not measure outcome attainment appropriately. Existing models and tools to predict outcomes may not be accurate. Environmental and behavioral interventions seldom allow for or include metrics to measure success after implementation.
    - The Program does not currently leverage co-benefits of existing technologies to target multiple desired outcomes at once. Technologies that help to achieve multiple desired outcomes should be promoted to more efficiently work towards goals.
3. ***Collaboration***
    - The Program has been effective at bringing together a large number of diverse stakeholders. However, additional opportunities for collaboration exist that would help to achieve desired outcomes. At the same time, experts suggest that collaboration can be complex, bureaucratic, and top-down, creating major operational inefficiencies.
        - The program needs to improve systems to prevent different groups from replicating efforts.
        - The program needs more cross-cutting coordination to move the work of climate and DEIJ (diversity, equity, inclusion, and justice) directives and initiatives forward.

- The Program should direct more resources to working with communities at the local and regional level to ensure programs are aligned with the needs of the communities they are designed to serve.
- The Program's use of consensus-based decision-making has the benefit of preventing political gaming of the system but has also favored easy changes over more complex or substantial solutions.

4. Use and dissemination of science

- Certain scientific knowledge, such as social science and evidence of BMP co-benefits, is poorly understood and/or under-utilized within the Program.
- Better integration of social science into behavioral interventions may improve plan designs and outcomes.
  - Social science practices could greatly benefit the Program if more behavioral social science projects apply and test theory, design interventions as experiments, expand interventions beyond homeowners to include more businesses and policy makers, and evaluate opportunities to apply promising but unused techniques of descriptive norms and defaults. Monitoring tools are being developed to help track outcomes.
- Generally, experts suggest that contemporary scientific findings could be better utilized to strategically target opportunities to pursue ecological outcomes. Simultaneously, experts often acknowledged that much of the "low hanging fruit" for strategic targeting has already been implemented.
- Experts sometimes mentioned that the Program should strengthen efforts to disseminate new scientific findings, however, most recommendations for improvement focused on strengthening knowledge of current science within the Program. Outside the Program, experts advocated for increased technical assistance resources.
- Some decisions about using and disseminating science have been influenced by a desire to stay away from "contentious topics" like climate change or other political agendas.

5. Functioning as a partnership

- The Program struggles to adapt to changing conditions. The existing framework does not encourage program change, experimentation, and innovation. It is limited in its ability to systematically address uncertainty.
- The structure of the Program inhibits the functioning as a partnership in several ways: the partnership is unable to adequately address cross-cutting issues of climate and DEIJ without dedicated support or leadership, workgroups are siloed and uncoordinated preventing them from working towards outcomes that require efforts in multiple categories, and work is frequently not aligned with communities' goals and needs.

EQ2.

To what extent does the Program know the external decision-makers and stakeholders it needs to reach?

- The Program is aware that it needs to expand its core networks to improve outcome monitoring. The Program is developing outreach plans; however, the biggest limiting factor is access to immediate and long-term funding.
    - The Program is pursuing funds to sustain and grow the decision-making support capacity.
- The Program is aware it needs to enhance capacity building and community engagement strategies to ensure they are working towards a collective vision based on informed conservation and restoration practices.

To what extent does the Program understand and support the needs of the decision-makers and stakeholders inside and outside the Program?

- The Program does not distribute resources relative to the priority of outcomes preventing high priority outcomes from receiving the resources necessary for successful attainment.

To what extent is the Program providing decision-makers and stakeholders inside and outside the Program with the information needed to assist the Program in attaining its Agreement Outcomes? [Note: Each question above should address diverse and disadvantaged populations.

- The current structure of the Program is not sufficient to address cross-cutting DEIJ efforts. To remedy this, the Program needs to identify champions to take responsibility for leading and coordinating these efforts.
    - The Program must strategically evaluate how to support this sort of distributed work through network theory and other coordination models.

APPENDIX B:
Group-Level Themes from Group Discussions

Jurisdictional Group Discussion 1
2/7/2024

- Understanding Structure: Participants expressed that jurisdictions try to integrate CBP into their state programs, but face challenges due to external influences and a lack of central focus on jurisdictions within the CBP. The adaptive management framework is seen as overwhelming and ineffective in fostering cross-coordination. The program could benefit from stronger leadership.
- Understanding Partners/Stakeholders: There is a consensus that the CBP lacks understanding of jurisdictions' needs and struggles to develop collaborative partnerships. The process to address issues is bureaucratic and slow, hindering progress and effective communication. The program's outreach to stakeholders within jurisdictions is criticized for being uncoordinated and lacking in presence, leading to confusion and minimized stakeholder buy-in. The states have relationships with the stakeholders, outreach should be channeled through trusted state/local orgs/entities.
- Partnership and Collaboration: Effective partnership is defined as having clear roles, responsibilities, and authority. It would be more effective for leadership to come from the signatories of the Bay watershed agreement, since they signed on to meet the outcomes of the Agreement. However, the current structure was described as competitive and potentially divisive, which hinders effective collaboration. Collaboration should be found across levels of the partnership, not hierarchical.
- Science: Jurisdictions support science-based decision-making by using various data sources and models. However, the CBP's approach to science is criticized for lacking objectivity and being influenced by opinions and special interests. It was noted that CAST is a national model for science-based decision making and has been moving in the right direction.
- Outcome Attainment: Jurisdictions support outcome attainment by aligning CBP goals with state programs. However, there is a sense that the CBP's focus on metrics and quantitative data does not align with the broader intent of statewide priorities.

Jurisdictional Group Discussion 2
2/21/**20**24

- Understanding structure: The participants expressed that they have limited resources and time to support their responsibilities in the CBP, and that they often face burnout and turnover. They also mentioned that the adaptive management framework is not very adaptive and that it is slow and unwieldy to address problems.
- Understanding partners/stakeholders: The participants said that the CBP has a good understanding of their needs, but that there are some challenges in linking the grant world and the Bay program, and in quantifying progress in a meaningful way. They also said that the CBP is helpful as a network of networks and a convener, but not very effective as a communication line to the public.
- Partnership and collaboration: The participants described the partnership as respectful and collaborative, but also as too large and too meeting-heavy. They said there are redundancies in the reporting and communication processes, and they must translate the information into something more digestible. They also suggested that there could be more cross-state collaboration and less siloing.
- Science: The participants affirmed their support for science-based decision-making, but also pointed out some issues with the science in the CBP. They said that the science changes faster than the bureaucracy, and that there is a need for more flexibility and adaptive management. They also said that some science-based recommendations are ignored or overridden by politics or finances, and that there is a lack of social science in the CBP. They praised the GITs for providing good science, but also asked for more feedback and follow-up on their recommendations.
- Outcomes: The participants said they must prioritize the outcomes relevant for their states and cannot address all of them. They said that the CBP has too many outcomes and that it may be trying to do too much. They also said that some outcomes are vague or unrealistic, and that there is a need for more leadership and accountability from the CBP. They asked for more recognition and celebration of the successes that have been achieved, and more support and resources from the CBP to fill the gaps.

Jurisdictional Group Discussion 3
1/18/2024

- Understanding Structure:
    - The discussion explores how the jurisdictions fit within the Chesapeake Bay Program (CBP) structure and how the adaptive management framework influences their roles.
    - Challenges related to the program's complexity, size, and bureaucracy are highlighted, along with the need for adequate funding and resources.
- Understanding Partners/Stakeholders:
    - The participants discuss how the CBP understands the needs of external stakeholders.
    - Challenges include juggling priorities, considering budget implications, and engaging stakeholders effectively.
- Partnership and Collaboration:
    - Effective partnership is defined as timely, responsive, and transparent collaboration.
    - Concerns are raised about the dominant role of the Environmental Protection Agency (EPA) and the lack of input from other federal agencies and partners.
- Science:
    - The CBP provides resources, data, and tools (e.g., CAST modeling, trends data) to support science-based decision-making.
    - Presentations and meetings with science experts are appreciated by stakeholders.
- Outcomes:
    - Stakeholders acknowledge the importance of specific practices but face challenges in implementation, verification, and funding.
    - Suggestions include narrowing focus and realigning the program's vision and structure to better serve partners and achieve outcomes.

Stakeholder Advisory Committee (SAC) Group Discussion
1/29/2024

- Understanding structure: The participants described SAC as one of the three advisory bodies of the CBP, with a broader and more public perspective than the other two. They also mentioned that SAC operates both formally and informally, providing input based on the structure and the networks of the members. They also noted that SAC's influence and effectiveness depend on the interest and receptiveness of the CBP leadership and staff.
- Understanding partners/stakeholders: The participants agreed that SAC understands the Bay stakeholders well because they are representative of them. They also acknowledged some gaps and challenges in the representativeness and appointments of the SAC members. They also pointed out that SAC does not have formal partnerships or agreements with other groups or communities, but tries to bring their perspectives and voices into the discussions.
- Partnership and collaboration: The participants expressed some frustration and dissatisfaction with the level and quality of partnership and collaboration between SAC and the CBP. They said that SAC does not get timely or adequate responses or feedback from the CBP leadership and staff, and that their recommendations are often ignored or not implemented. They also said that SAC does not have a main focus or expectation to partner or collaborate with residents and local stakeholders, but rather tries to facilitate some outreach and communication with them.
- Science: The participants highlighted SAC's role and capacity to support science-based decision-making and dissemination of science within the CBP. They said that SAC has members with different technical and policy backgrounds, and that they have intentionally tried to think through the science of the challenges and the implementation of the science into policy. They also said that SAC has been one of the voices for transitioning some of the need for social science integration. They also noted that dissemination of science is not really part of SAC's role, and that transparency in decision-making is important.
- Outcomes: The participants admitted that it is difficult to say that SAC supports outcome attainment within the CBP, as they are not part of the formal structure responsible for the outcomes. They said that SAC provides advice, reactions, feedback, and critique to the approaches and strategies to meet the outcomes, but they do not see much impact or change as a result. They also said that SAC does not directly support residents and local stakeholders in meeting their outcomes, but rather tries to highlight the disconnect between the outcomes and the resources, capacity, and communication needed to achieve them.

Scientific and Technical Advisory Committee (STAC) Group Discussion
2/27/2024

- Understanding Structure
    - Organizational Structure: STAC has 38 members from diverse backgrounds, an executive board of 6, and past chairs involved in leadership. It operates mostly on a voluntary basis, with significant commitment from its members.
    - Fit within CBP: STAC's role within the Chesapeake Bay Program is less clear to members, with interactions funneled through leadership. It provides independent advice and evaluates broader questions through various mechanisms.
    - Influence on Adaptive Management: STAC has pushed for better adaptive management within CBP and has influenced the formalization of the process, contributing to the monitoring and science that informs the feedback loop.
- Partnership and Collaboration
    - Effective Partnership and Collaboration: STAC is considered fortunate among advisory groups due to its impact and the science-based foundation of the Bay program. It has been effective in guiding technical questions and influencing restoration science.
    - Supporting the Program: STAC facilitates collaboration within the program through workshops and publications, despite limited funding. It interacts effectively with other teams by meeting their needs and providing feedback.
- Science
    - Supporting Science-Based Decision-Making: STAC has pushed for the integration of science into decision and policy making, highlighting the need for understanding the science of decision making itself.
    - Use and Dissemination of Science: STAC sets the tone for production and dissemination of science within the program, publishing technical documents and reports, and making efforts to reach broader audiences.
- Outcomes
    - Supporting Outcome Attainment: STAC plays a significant role in outcome measurement, facilitating conversations about achieving outcomes, and questioning the effectiveness of current objectives.
    - Influence on External Stakeholders: STAC advises on processes early to allow for interventions and has drawn attention to the importance of both large and small outcomes within the Bay program. It also faces challenges in reaching consensus and dealing with political aspects.

Local Government Advisory Committee (LGAC) Group Discussion
1/16/2024

- Understanding structure
    - EQ1: The Local Government Advisory Committee (LGAC) is seen as composed of individuals who understand the big picture of the Chesapeake Bay Program. However, there's a gap in communication from the grassroots level back up to LGAC.
    - Understanding partners/stakeholders
    - EQ2: There's a recognition of the diversity of local government needs and the turnover rate among local officials. The need for better understanding and communication with local governments is emphasized.
- Partnership and Collaboration
    - EQ1, EQ2: Effective partnership and collaboration are defined by equal participation and open dialogue. There's a sense that the federal government doesn't fully understand local government structures, which affects cooperation.
    - Science
    - EQ1: LGAC supports science-based decision-making by acknowledging the importance of sociology and economics in understanding stakeholders. However, there's a sentiment that LGAC's role isn't to delve into scientific details but to focus on policy and its implications.
- Outcomes
    - EQ1: LGAC aids in outcome attainment by highlighting success stories and advocating for local government needs. The limitations in reach and resources are acknowledged, along with the importance of understanding the audience for effective decision-making.
- These summaries reflect the perspectives of the attendees on how LGAC operates within the Chesapeake Bay Program and its engagement with local governments and stakeholders. They highlight the need for improved communication, understanding, and collaboration between different levels of governance and the importance of science and policy in environmental decision-making.

GIT 1 Group Discussion
2/8/2024

- Understanding structure: The participants described the organizational structure of the GIT as a decision-making body that sets direction and provides science support for the rest of the team. They also explained how the structure aligns with the outcomes they are involved in, and how they meet regularly in work groups and full GIT meetings. They also mentioned some challenges and opportunities for integrating their work with other parts of the CBP, especially on water quality and living resources issues.
- Understanding partners/stakeholders: The participants defined effective partnership and collaboration as working together to find solutions, share information, leverage resources, and reduce duplication of efforts. They also gave examples of how they interact with other partners and stakeholders, such as NOAA, Army Corps, NFWF, NGOs, and other GITS. They also acknowledged some tensions and differences in goals and priorities among different states and agencies, and how they try to overcome them.
- Partnership and collaboration: The participants highlighted some of the benefits and challenges of working as a partnership, such as having more visibility, accountability, leadership, and resources, but also having more bureaucracy, red tape, and cooks in the kitchen. They also discussed how they collaborate with other parts of the CBP, such as on joint efforts, cross-pollination, and interconnectivity. They also mentioned some areas where they would like to see more collaboration, such as on catfish, forage, and fish health.
- Science: The participants emphasized the importance of science-based decision-making and dissemination, and how they use science to inform their actions, programs, and outcomes. They also shared some of the sources and methods of science dissemination, such as meetings, articles, webinars, and conferences. They also identified some of the hindrances and gaps in science, such as funding, data, and research needs.
- Outcomes: The participants evaluated their progress and success on their outcomes, and gave examples of some of the factors that contributed to or hindered their outcome attainment. They also compared and contrasted some of the outcomes, such as oysters, blue crabs, fish habitat, and forage, in terms of their quantitative and qualitative nature, their clarity and metrics, and their implementation and challenges. They also discussed how they support external stakeholders in meeting their outcomes and the CBP outcomes

GIT 2 Group Discussion
2/26/2024

- Understanding structure
    - Organizational Structure: The GIT's structure is seen as reliant on a few key individuals, with challenges in engaging workgroup members during meetings. It's noted that the structure varies depending on individuals' roles and tenure.
    - GIT within CBP: The GIT's role within the Chesapeake Bay Program is complex, with wetlands outcomes being intertwined with the water quality group, despite a lack of wetland scientists in the latter. This leads to additional workload for those trying to integrate their efforts with other groups.
- Partnership and Collaboration
    - Effective Partnership and Collaboration: An effective partnership within the CBP is characterized by engagement of all the right people, working collaboratively towards improving the Bay. Conflict is seen as inevitable but should be managed professionally.
    - Supporting the Program: The structure within the GIT and its placement within the CBP is perceived to be uneven, with some suggesting that the habitats goal should be more prioritized given their importance and the number of workgroups involved.
- Science
    - Supporting Science-Based Decision-Making: The current GIT structure doesn't necessarily facilitate science-based decision-making. There's a call for more intentional inclusion of scientists across the program's structure.
    - Dissemination of Science: The dissemination of science is seen as somewhat organic, dependent on individual GIT chairs and members sharing information, rather than being a structured aspect of the GIT.
- Outcomes
    - Supporting Outcome Attainment: The structure within the GIT is seen as more process-oriented than project-based, with a focus on facilitating the work of partners rather than directly achieving outcomes. There's a recognition of the need for better tools to track progress and a more supportive approach from the management board.
    - This summary reflects the participants' views on the structure, partnership, science, and outcomes within the GIT and its relationship with the Chesapeake Bay Program as discussed in the meeting.

GIT 3 Group Discussion
1/30/2024

- **Understanding structure:**
    - The GIT is divided into workgroups focusing on specific topics, with a consensus-based decision-making structure. There are six at-large positions intended to increase diverse voices, but one is currently vacant. The organizational structure is described as rigid, with limited decision-making options and a high commitment required from members.
- **Partnership and Collaboration:**
    - Effective partnership and collaboration within the CBP are defined by productivity and inclusivity of diverse voices. However, the current structure is seen as dominated by states and the EPA, which may leave out valuable insights from other partners. There's a call for a balance between respecting individual opinions and preventing obstruction of progress.
- **Science:**
    - Decision-making is supported by science at the workgroup level, but there are concerns about the quality and availability of data. The dissemination of science to external stakeholders is seen as a one-way communication, with implementers often left out of the development process.
- **Outcomes:**
    - The GIT structure indirectly supports outcome attainment, but there's a consensus that there are too many outcomes and not enough support for external stakeholders. The focus is on meeting regulatory requirements rather than achieving practical goals, and there's a need for better information sharing and practical application of science.
- These summaries reflect the concerns and suggestions of the attendees regarding the structure and function of the GIT within the Chesapeake Bay Program.

GIT 4 Group Discussion
1/30/2024

- Understanding structure: The participants described the GIT 4 as a small, flexible, and innovative team that works on watershed health and protection, but also faces challenges in fitting into the CBP structure that is dominated by the TMDL and restoration goals. They also mentioned the lack of work groups, implementation funds, and consistent definitions for healthy watersheds across states.
- Understanding partners/stakeholders: The participants identified various external stakeholders that are involved in or affected by their work, such as state agencies, NGOs, local governments, landowners, and volunteers. They also expressed the need to engage more with these stakeholders, understand their needs, and communicate the value of watershed protection.
- Partnership and collaboration: The participants defined effective partnership and collaboration as having mutual perceived benefits, shared interests, diverse skills, and clear roles. They also discussed the barriers and opportunities for collaboration within and across GITs, such as the silos, duplication, and alignment of outcomes and activities.
- Science: The participants emphasized the importance of using and disseminating science-based decision-making for watershed health and protection. They also acknowledged the gaps and challenges in doing so, such as the time lags, passive approaches, user experience, and data availability.
- Outcomes: The participants evaluated the progress and challenges of achieving their outcomes, both internally and externally. They also suggested some ways to improve their outcome attainment, such as reallocating resources, reaching out to implementors, updating maps, and integrating protected lands and recreational components.

GIT 5 Group Discussion
2/2/2024

- Understanding structure
    - Organizational Structure: Described as a "mother ship" (GIT 5) with "pods" (workgroups), each having specific missions aligned with the Watershed Agreement goals. However, the reliance on volunteer leadership and high turnover rates make the structure volatile and challenging.
    - Fit within CBP: The GIT's integration into the Chesapeake Bay Program (CBP) is likened to a plate of spaghetti, indicating a complex and scattered structure. GIT 5 is perceived as distinct from "water quality" and "hard science" groups, often seen as a catch-all for people-related goals, leading to overestimation of its capacity.
- Partnership and Collaboration
    - Effective Partnership: Effective partnerships are built around long-standing members of the Bay program, which can hinder new relationship building. Consistency and engagement are crucial, with internal leadership and initiative driving success.
    - Supporting the Program: The GIT structure within CBP is critiqued for not fostering effective partnership, with a lack of incorporation between GITs and an overwhelming bureaucracy that hampers goal achievement and collaboration.
- Science
    - Supporting Science-Based Decision-Making: The structure is seen as ill-fitting for qualitative, people-focused goals. There's a lack of transparency and effort to incorporate diverse partner perspectives, which hinders the use of science in decision-making.
    - Dissemination of Science: Access to and dissemination of scientific information are problematic, with a perception that published work is not easily accessible or collaborative and prioritizes biophysical over social sciences.
- Outcomes
    - Supporting Outcome Attainment: Poorly defined outcomes and metrics, staff turnover, and a lack of tangible goals are cited as obstacles. Some workgroups, like the Chesapeake Conservation Program, are highlighted for their nimbleness and success in supporting external stakeholders despite these challenges.
    - Funding and Political Support: A significant concern is the lack of funding for implementation and a collective process to prioritize budgeting for partnership outcomes. The need for better communication and flexibility from managing agencies like the EPA is emphasized.
- This summary captures the essence of the discussions under each heading, reflecting the participants' views on the structure, partnership, science, and outcomes within GIT and CBP.

GIT 6 Group Discussion
2/2/2024

- Understanding structure
    - The organizational structure of GIT 6 is described as similar to other GITs, with three workgroups and a government action team. It's seen as a governance resource, responsible for documenting policies, maintaining organizational charts, and supporting CBPO teams with budget tracking and local government participation. However, it's noted that GIT 6 could be more recognized for its expertise in effective team leadership.
- Partnership and Collaboration
    - Effective partnership and collaboration within the CBP are defined by shared vision, clear roles, representation from all jurisdictions, and trust-based culture. Budget transparency is suggested to improve collaboration. The current structure supports the partnership well, but there are capacity limitations and inconsistent participation from jurisdictions.
- Science
    - GIT 6's structure supports science-based decision-making by identifying and filling science gaps through the SRS process. However, there's a need for better dissemination and integration of science into decision-making, with suggestions for USGS leadership and tighter links between science work and workgroups.
- Outcomes
    - GIT 6 indirectly supports outcome attainment by monitoring the health of groups and providing funding opportunities. There's a call for an adaptive management approach to adjust outcomes based on new scientific advancements and information.

Cross GIT Group Discussion
2/9/2024

- Understanding structure:
    - The GITs are seen as disconnected from the Management Board, lacking clear communication and collaboration opportunities. There's a consensus that GITs operate in silos and there's a need for a platform to foster collaboration. The role of GITs in implementation is debated, with some feeling they are more about tracking than driving action.
- Adaptive management framework:
    - The adaptive management framework is thought to be functioning well at the GIT level but stalls at the Management Board. There's a sense that the Management Board doesn't address issues brought by the GITs adequately, leading to a disconnect in the structure.
- Partnership and Collaboration:
    - Effective partnership and collaboration are defined by open communication, mutual respect, and active participation. However, there's a cultural clash within the program, and a lack of empathy between different cultures is seen as a barrier to success.
- Supporting partnership and collaboration:
    - Trust issues and a lack of clear decision-making processes are highlighted as hindrances to effective partnership and collaboration. The GITs' siloed nature is seen as a barrier to cross-collaboration, and there's a call for more authority in funding/resource allocation decisions.
- Science-based decision-making:
    - The GITs are recognized for supporting science-based decision-making at their level, but there's skepticism about how much science influences decisions at higher levels of the CBP. The need for a stronger science-based lead and better communication of science to external stakeholders is emphasized.
- Dissemination of science:
    - There's a concern that the Bay program's information dissemination is scattered and not effectively reaching the public. The need for a more centralized and impactful web presence is suggested to improve public engagement and understanding.
- Outcome attainment:
    - The GITs are seen as focused on outcomes but lack dedicated resources for implementation. There's a call for rethinking the decision-making structure to make true progress and for CBP to act more as a middleman, facilitating rather than implementing actions.
- This summary reflects the key points discussed under each heading, focusing on the internal perspectives and challenges faced within the GITs and the CBP organizational structure.

Scientific, Technical Assessment & Reporting (STAR) team Group Discussion
2/9/2024

- Understanding structure:
    - Organizational Structure: Described as the science support within the CBP, with in-house modeling and GIS teams. It's highlighted that STAR has diverse workgroups with different funding and operations, aiming to connect goals and outcomes and bring science forward.
    - STAR's Role in CBP: STAR is seen as a connecting force within the CBP, engaging with all GITs and breaking silos, which is crucial for collaboration and accountability.
- Partnership and Collaboration:
    - Effective Partnership: Effective communication is deemed essential for partnership, but there's concern about information sharing becoming top-down and siloed.
    - STAR's Support to CBP: STAR helps track science needs, connects GITs with partners, and influences collaboration. However, there's a need to focus science communication locally and integrate other outcomes into the accountability framework.
- Science:
    - Science-Based Decision-Making: STAR is involved in implementing rather than directing science, with a focus on convening groups and filling science gaps. There's a call for simplified tools and better external communication.
    - Dissemination of Science: STAR and its workgroups disseminate science effectively, but there's a need for better networks to reach partners and stakeholders.
- Outcomes:
    - Outcome Attainment: STAR leads in monitoring water quality and identifying science gaps for outcome progression. However, there's a disconnect in the accountability framework and a lack of clear attainment measures for some outcomes.
- This summary reflects the participants' views on STAR's structure, role, and effectiveness within the CBP, as well as the challenges and opportunities for improvement in partnership, science communication, and outcome attainment.

Strategic Engagement Team (SET) Group Discussion
1/26/2024

- Understanding structure: The participants described SET as an internal group that works externally to get resources and technical information to relevant people and places. They also said that SET follows the adaptive management framework at CBP and is involved in the quarterly reviews of the GITs. They acknowledged that SET lacks active participation of jurisdictions and partners, and that some people still do not understand their role or what they do.
- Understanding partners/stakeholders: The participants said that the core of their work is understanding the needs and perspectives of the partners and stakeholders, and that they have connections at different levels of the partnership. They also said that they help identify gaps and missing voices in the decision-making process, and that they try to find trusted sources for different audiences. They admitted that they do not know every single need, but they are curious and search for information when needed.
- Partnership and collaboration: The participants said that they model effective partnership and collaboration within their group, and that they try to be inclusive and hear many perspectives. They also said that they help facilitate collaboration and communication across the partners, and that they connect networks of people with relevant groups. They mentioned some challenges and barriers to collaboration, such as lack of support from the program, territoriality of some jurisdictions, and distrust of EPA staff by some local stakeholders.
- Science: The participants said that they help support science-based decision-making and dissemination of science within and outside the program, by integrating social science, diversity, and local government considerations into the plans and actions of the GITs. They also said they assist with some cross-pollination of knowledge and expertise among the partners and help keep track of the program's progress and outcomes. They noted some factors that hinder their work, such as lack of basic social science understanding by some partners, lack of resources to conduct or support research, and lack of transparency and information about the decision-making process.
- **Outcomes**: The participants said that their whole intention is to help implement different strategies and actions that support the outcome attainment of the program. . They also said that they help make the work of the program more impactful and effective by engaging with different audiences and stakeholders. They identified lack of resources and capacity as a major challenge that they face in achieving their goals.

Federal Agencies Discussions
Multiple Dates

- **Federal Agency Involvement:** Federal agencies play a crucial role in the Chesapeake Bay Program, providing funding, staffing, and technical assistance. They are involved at various levels, from coordinating teams to contributing to specific goals, and are a crucial reason that many of the outcomes are on-track.
- A**daptive Management Framework:** Federal agencies help implement the adaptive management process. All the federal agencies are represented at the management board. EPA represents all federal agencies for decisions at the management board level; however, each agency has a unique federal role and responsibility that defines its mission, which can result in differences. EPA attempts to coordinate through the Federal Office Directors monthly meetings and individually with other federal agencies to represent them in decisions. At the workgroup level, some federal agencies expressed that it doesn't feel like the adaptive management process functions properly, stating it aids in reporting needs but lacks a clear path for advancing projects within the CBP structure.
- **Effective Partnership & Collaboration:** An effective partnership involves open communication, trust, and shared goals. There are concerns about the erosion of partnership culture and communication issues within the CBP. Some agencies suggested that this leads to power struggles and bureaucracy hindering progress.
- **Federal Operation Impact:** The way federal agencies operate within the Program can both benefit and hinder its functioning. The federal agencies do a good job of looking for opportunities to work together and harness their collective skillset. Additionally, agencies can keep up with what the others are doing and transfer funding and effort between each other through interagency agreements. Some agencies expressed there are also power dynamics at play. Other agencies did not agree. Almost all of the agencies have their own appropriations designated for the Chesapeake Bay Program, including staffing. Some believe the EPA's control over EPA funding and EPA staffing decisions is significant and other agencies believe that this is appropriate. There is thought among agencies that all should work to improve the collaborative culture. Some also believe there is need to address the dominance of water quality focus (meant to be a criticism of structure rather than a criticism of EPA); however, other agencies point to the prioritization by jurisdictions that are signatories to the Chesapeake Watershed Agreement. Through EPA grants to states and competitive grants, funds are provided to support the overall Agreement. Some believe the program used to feel more collaborative and all agree on goals to achieve good collaboration.
- **Science-Based Decision-Making:** Federal agencies support science-based decision-making through data analysis and tool development and work together in a collaborative manner utilizing each agency's strengths. However, some agencies point out that the focus on water quality science overshadows other important areas like climate and social sciences, affecting the integration of diverse scientific perspectives. Additionally, science is used to inform decisions, but some believe that the program does not use a science-based decision-making structure.
- **Science Use & Dissemination:** While federal agencies contribute to science creation, there's a gap in translating and communicating this information effectively. The CBP has multiple microsites sharing information, but there's a need for better structuring and end-user focus on tool development.

- **Outcome Attainment Support:** Federal agencies are key to achieving ecosystem and many other goals, with some directly implementing practic3es for attainment. Federal agencies bring in science to the Program to support outcome attainment and implement practices to achieve attainment.

SRS Process
4/5/2024

- **SRS Functionality:** The SRS process was designed with the intention of promoting accountability and transparency. It employs a logic-framework to enhance the effectiveness of actions. However, it has been criticized for devolving into a mere box-checking exercise, losing sight of its original purpose as an adaptive management strategy. Additionally, the process has become cumbersome and takes too long, leaving no time to implement changes.
- **Organizational Fit:** At the GIT (Goal Implementation Team) level, the SRS process has proven to be effective. However, when escalated to the management board, the process encounters challenges due to a lack of responsiveness and resources to address the issues raised. Staffers, who are entry-level grantees, are expected to complete work above their level due to the SRS process becoming more about checking boxes. Staffers are very informed and do good work, but they are not necessarily the people who should be completing it. There needs to be a change in the hierarchy process so there can be more advice and input from leadership. The SRS process is meant to be a critical thinking process, but it has not been operating as such.
- **Partnership and Collaboration:** The SRS process faces significant obstacles due to institutional inertia. While workgroups can accomplish tasks, they encounter roadblocks when trying to implement changes at higher levels of the organization. There does not seem to be a desire to take the learning that comes with the process to make adjustments or reallocate resources at the management level.
- **Science and Decision-Making:** The SRS process supports science-based decision-making at the GIT level. However, there is a clear absence of a framework for adaptive management at higher levels, which hampers the process's effectiveness.
- **Outcome Attainment:** The SRS process stimulates critical thinking and encourages innovative solutions. However, its effectiveness is limited by rigid goals and a lack of tools for assessing trade-offs. This makes it difficult to implement learnings and adapt strategies based on new information or changing circumstances.

Science Discussion
4/5/2024

- Science and Program Goals: The use of science in supporting the program's goals is seen as effective, with science providing tools and insights for policy needs1. However, there's an acknowledgment that not all scientific outputs are utilized effectively, or impact decision-making as expected.
- Focus of Science: The focus of science within the program is comprehensive, covering both natural and human systems. While some areas may seem less connected to science, such as policy, the overall sentiment is that science is integral to all aspects of the program2.
- Integration of New Science: New science is integrated through documentation systems and recommendations, but barriers exist due to legacy issues, funding flows, and the challenge of incorporating new findings into established processes.
- Science in Decision Making: Science is heavily used in decision making, particularly through models and monitoring data. However, challenges include disseminating data at the local level and ensuring that scientific findings are actionable and understood by decision-makers.
- Dissemination of Science: The program disseminates science through various means like reports, webinars, and scientific papers. Openness and clear communication are emphasized, but time constraints and the need for community engagement at the local level are seen as hindering factors.

At-Large Steering Committee Members and Invited Stakeholders, Discussion #1

2/8/24

- **Understanding Structure**:
    - Participants emphasized the importance of clear organizational structures. They highlighted the need for well-defined roles, responsibilities, and communication channels within partnerships.
    - Some mentioned challenges related to hierarchical structures and bureaucratic processes, which could hinder effective collaboration.
- **Understanding Partners/Stakeholders**:
    - Participants recognized the diversity of stakeholders involved in their work. They discussed the significance of identifying and engaging relevant partners.
    - They emphasized the need to understand partners' motivations, interests, and capacities. Building trust and maintaining open communication were key themes.
- **Partnership and Collaboration**:
    - Participants shared experiences of successful collaborations. They highlighted joint problem-solving, resource sharing, and mutual learning.
    - Challenges included power dynamics, conflicting priorities, and managing expectations. Strategies for overcoming these challenges were discussed.
- **Science**:
    - Participants acknowledged the role of evidence-based approaches. They emphasized the importance of rigorous research, data collection, and evaluation.
    - Some expressed the need for translating scientific findings into practical solutions that address real-world issues.
- **Outcomes**:
    - Participants discussed both short-term and long-term outcomes. These included improved services, policy changes, and community impact.
    - Measuring outcomes was a common concern. Participants emphasized the need for robust evaluation methods to assess the effectiveness of their work.
- Overall, the participants' responses highlighted the complexity of partnerships, the value of stakeholder engagement, and the critical role of evidence-based practices in achieving meaningful outcomes.

At-Large Steering Committee Members and Invited Stakeholders, Discussion #2

2/26/24

- The stakeholders express various frustrations and criticisms of the CBP, such as:
  - Lack of accountability, leadership, and strategy among the CBP partners and staff.
  - Ineffective and unresponsive feedback mechanisms and decision-making processes.
  - Poor communication and dissemination of science and information to relevant audiences.
  - Confusion, overlap, and competing priorities among the CBP outcomes and goals.

- The stakeholders also offer some suggestions and opportunities for improvement, such as:
  - Leveraging network science and social science to design and evaluate a healthy collaborative model.
  - Applying the best available data and practices to support science-based decision-making.
  - Focusing on the most impactful questions and issues that align with the CBP mission and vision.
  - *Defining and engaging the key external stakeholders that are needed to achieve the CBP outcomes and goals*.

Federally-recognized Tribes Discussion - Summary

4/12/24

ERG held a listening session with four representatives from Indigenous nations. Representatives from the Federally-recognized Tribes were relatively unfamiliar with the Chesapeake Bay Program (CBP). They were aware of CBP's goals at a very high level but were unaware of specific outcomes CBP hoped to achieve. One representative described themselves as not "comfortably familiar" with the program. Others agreed that that was an accurate description. The representatives shared that they do not work directly with CBP on project work or when seeking technical advice. Generally, interactions with CBP are indirect, through introductions facilitated by organizations that the Federally-recognized Tribes work with. One representative suggested that Federally-recognized Tribes may be somewhat unfamiliar with CBP because they were not involved in the initial program.

The representatives shared that effective partnership and collaboration meant planning well in advance and considering all voices in the discussion equitably. One respondent mentioned that for collaboration to be effective, participants must be truly invested in the opinion of the Federally-recognized Tribes they are working with instead of simply "checking a box". The representatives mentioned that partnership and collaboration have major impacts across Federally-recognized Tribes. When nations collaborate, they work together, hold conversations, and seek one another out for advice and insight. The representatives struggled to compare their reflections on effective collaboration and partnership to the work being done by the CBP since they have had so few interactions with CBP.

The respondents asserted that they should be recognized as more than key stakeholders since they represent sovereign nations. The representatives expressed their dissatisfaction with the idea of being considered as sub-parties within states. They suggested that they should be treated as equals to the states and recognized as signatories within CBP. Generally, the representatives expressed that CBP had failed to engage Federally-recognized Tribes directly and thus could not possibly understand their needs.

The representatives voiced that CBP does not support science-based decision-making within Federally-recognized Tribes. Participants noted that they went to other sources for aid with science-based decision-making and had no direct interaction with CBP. They expressed that the language used by CBP to talk about science creates barriers to dissemination and application of CBP's scientific findings within the Federally-recognized Tribes. Altering CBP's language to account for traditional Indigenous knowledge and the historical and cultural importance of the Chesapeake Bay to Indigenous Peoples was suggested as a potential way to increase collaboration with Federally-recognized Tribes and encourage use of CBP resources within those nations. Discussion participants emphasized the importance of accessibility to collaboration efforts and dissemination of science. They suggested, in addition to dropping language and practices stemming from Western colonial attitudes, beliefs, and behaviors, that CBP make scientific information easy for Federally-recognized Tribes to locate since they have limited capacity to search for technical knowledge.

The discussion participants acknowledged that their understanding of CBP's goals is limited to a high-level holistic understanding and did not account for specific goals held by the CBP. Despite that, they generally thought that CBP's work helped to support Federally-recognized Tribes in meeting their own outcome goals indirectly through downstream environmental effects.