Enabling Effective Adaptive Management in the Chesapeake Bay Program

Joint Proposal of the ChesapeakeStat Action Team and the Leadership GIT

I. Introduction

The Executive Council created a Chesapeake*Stat* Action Team in June 2010 and charged it with defining a process for maximizing the use of the Chesapeake*Stat* website in Bay Program partnership decision-making. The Management Board (MB) further described the goal of improving support for decision-making and the mission and scope for the Chesapeake*Stat* process to include setting specific, time-bound objectives, identifying responsible parties, regular review and adaptive action, and transparent reporting of progress.

Adaptive management has long been discussed, advocated, and implemented in a limited fashion in the Chesapeake Bay Program (CBP), including being described in the program's internal governance document and featured in the Executive Order 13508 (EO) strategy. A proposal for an adaptive management system was presented to the MB in January 2010 by the Leadership GIT with a proposal to implement March 2010. The MB decided to postpone the implementation of the Adaptive Management system in order to give the GITs more time to fully develop their goals, and to allow the MB more time to review their progress. This document presents recommendations for making incremental progress toward the previously established adaptive management goals.

The Action Team proposes this as a consolidated recommendation of the Chesapeake*Stat* Action Team and the Leadership GIT to the MB as an **incremental step** in moving toward adaptive management – a bottom-up approach to coordination and recommendation to promote movement to an adaptive management framework.

II. Current Situation

The existing organizational and governance structure of the Chesapeake Bay Program partnership, and more specifically the Goal Implementation Teams (GITs), is based on and driven by the goals and desired results articulated in the Chesapeake Action Plan (CAP). The program's organizational structure was agreed to by the PSC, but because the CAP was not formally endorsed or fully supported by the states (and for the Federal Agencies was superseded by the EO), the GITs' individual focus is not defined consistently for all the GITs by either the CAP or the EO, but is often an integration of both and the Chesapeake 2000 Agreement.

The CAP, and subsequent re-organization, was initiated largely in response to recommendations from the U.S. Government Accountability Office (GAO) in a 2005 report. That report specifically recommended:

- developing an overall, coordinated implementation strategy that unifies the program's planning documents, and
- establishing a means to better target the program's limited resources to ensure that the most effective and realistic work plans are developed and implemented.

In reviewing the CAP, the GAO said that "while these actions appear to be positive steps in the right direction, we believe that additional actions, such as identifying resources and assigning accountability to partners for implementing the strategy, are needed for the Bay Program to **move forward in a more strategic and well-coordinated manner**."

Executive Order 13508 was signed by the President in May 2009 and directed federal agencies to develop a strategy for protection and restoration for the bay (completed in May 2010). The need to more effectively coordinate Program activities and work efforts and leverage limited resources remains critical.

The time has come to make progress towards true adaptive management *implemented as a systematic process* as the next logical step for the CBP.

III. The Decision Framework

Restoring a large complex ecosystem to desired conditions is a process fraught with uncertainty. Success hinges on the ability of all partners in the process to commit to *learning while doing* – in other words – taking action without guarantees, supporting effective monitoring, transparently assessing progress, and redirecting efforts when warranted.

As a guide, we have proposed the following adaptive management decision framework for the Chesapeake Bay Program:

1. Articulate program goals.
   Identify the goals the GIT is working toward.
2. Describe factors influencing goal attainment.
   Identify and prioritize all factors that influence performance toward a goal. This step can help identify areas for cross-GIT collaboration.
3. Assess current management efforts (and gaps).
   Identification of gaps/overlaps in existing management programs addressing the important factors affecting goal attainment.
4. Develop management strategy.
   Coordination and implementation planning by stakeholders.
5. Develop monitoring program.
6. Assess performance.
   Criteria for success/failure of management efforts should be known when the strategy is developed and the monitoring program is designed. This is the analysis that informs program adaptation. This helps inform next steps.

7. Manage adaptively.
   Based on the monitoring assessment, system models are amended, and monitoring strategies are revised to improve program performance.

When goals and actions are identified and justified, monitoring needs can be clearly defined and monitoring resources prioritized. When monitoring information is available, assessment of progress becomes feasible, and reporting of performance is enabled. When performance can be assessed in this manner, decisions are informed, and adaptive management occurs.

IV. Proposed Implementation Approach and Roles and Responsibilities

The Chesapeake*Stat* Action Team has been tasked with recommending a process by which Chesapeake*Stat* could support the work of the MB in reviewing performance and providing coordination across the goal teams. Additionally, Chesapeake*Stat* has been identified in the EO Strategy as a forum to "provide data to show progress toward outcomes and serve as a useful adaptive management process and tool. Chesapeake*Stat* will improve coordination of the restoration effort and expand public accountability by providing information on progress of partner activities and use of funds. A significant element of Chesapeake*Stat* is that Chesapeake Bay Program managers, federal agencies, states, local governments, nongovernmental organizations and the public will be using the same tool to track efforts to restore and protect the Bay."

Implementing adaptive management through the Decision Framework can (and over time, should) occur at multiple organizational levels. Initially, the proposal suggests starting with the GITs and will require them to explicitly articulate their goals, action plans, and the rationale for those plans. (This is information that can be obtained from all the current organizational units, regardless of their current focus (Chesapeake 2000, the Executive Order, or something else)). No matter what each of the GITs believes its mission to be – or whether this mission aligns neatly or logically with another GIT – each should be able to articulate the goals, identify the actions planned, and provide a compelling rationale for those actions. This is the information that ultimately *provides the basis for coordination, collaboration, and the development of program strategy.*

This becomes a bottom-up, Goal Implementation Team approach to coordination rather than top-down alignment.

a. Goal Implementation Teams

The GITs are at different stages relative to goal setting and strategy development. Given this variability, moving forward requires a *flexible approach* but with a simple, firm foundation– and this can be implemented by beginning where it is possible to begin.

Interested GITs would evaluate and describe their work using the categories described in the Decision Framework. They would work with the Chesapeake*Stat* team to develop content for inclusion in Chesapeake*Stat* and use the website to communicate their work to other GITs, the MB, the Federal Leadership Committee, the public, and other interested stakeholders.

Decision Framework – A Practical Application & *Example*

1. Articulate program goals.
   Conserve healthy watersheds in a variety of landscapes (e.g., agricultural, residential, etc.).
2. Describe factors influencing goal attainment.
   Local knowledge of effective management practices to conserve "health."
3. Assess current management efforts (and gaps).
   Need effective transfer of successful practices between localities.
4. Develop management strategy.
   Establish information sharing web forum and peer mentoring network.
5. Develop monitoring program.
   Document local implementation of ideas drawn from other watersheds.
6. Assess performance.
   Greater than desired number of local implementations.
7. Manage adaptively.
   Review value of the information sharing strategy and revise if needed.

Eventually all of the GITs will have to have an ability to explicitly define their goals and articulate the rationale for any action plans. When this is accomplished, it will be possible for the GITs to identify their individual monitoring and analysis needs – thereby tasking Scientific and Technical Analysis and Reporting (STAR) (data collection and analysis) and enabling Chesapeake*Stat* (management issue identification and framing).

At present, the leadership of the Habitat and Watersheds GITs have committed to describing the basic information in a consistent format (*aka* Decision Framework) necessary to enable the adaptive management process. The Water Quality and Fisheries GITs have activities underway and much of the essential information developed could be captured in the framework necessary to initiate the process. The Leadership GIT is best positioned to staff the adaptive management process and the Management Board given their current suite of responsibilities.

b. ChesapeakeStat Team and STAR

The Chesapeake*Stat* Team (part of the Leadership GIT) and STAR would continue to work with early implementers by assisting in data collection, analysis, and performance reporting - as those needs are identified by each GIT. Priority would be given to developing content in Chesapeake*Stat* following the categories described in the Decision Framework with initial new content in SAV, Agriculture, and Watersheds. This would occur over the next several months. Additional content would be added as other GITs identify and describe content for the needed information categories described in the Decision Framework.

While there can be many layers to the information described in the Decision Framework and the information can be described in a very detailed, "ecosystem-based" approach, in the spirit of beginning where it is possible to begin, an example approach is described in the text box on the left. The example provided demonstrates that not every GIT is in the same place but there are still goals that can be articulated and progress should be described transparently and used to enhance future strategies.

c. Advisory Committees

The three Advisory Committees (Citizens, Local Government, and Scientific and Technical) provide independent perspectives from critical stakeholder groups and strengthen the natural and social science basis for Bay restoration activities. The Advisory Committees are the independent thinkers and advisors to the EC, Principals' Staff Committee (PSC) and MB and provide support to GIT requests for policy, scientific and technical input as allowed by the limited time that members are able to apply. As such, they are critical to supporting implementation of the adaptive management framework.

d. Management Board

The **MB will be in a position to review performance, identify opportunities for coordinating resources, identify opportunities for strategic coordination and leveraging of complementary efforts, and recognize when program redirection is necessary.** This process will also inform other partners and the public about CBP priorities and progress toward achieving those priorities.

Time would be allocated in each MB meeting to discuss cross-cutting topics of concern that highlight the work of more than one goal team. Data and information would be accessed via established content on Chesapeake*Stat* and, after follow-up actions are assigned, tracking of that follow-up would occur on Chesapeake*Stat*, and be reported during the next Management Board meeting.

These monthly portions of the meeting agenda would be balanced so that over the course of the year, the Management Board would have the opportunity to hear from each of the GITs individually and as part of cross-cutting topic discussions. These monthly topic discussions would build over time into a regular quarterly annualized schedule.

The GITs would benefit from this approach by receiving more consistent feedback and direction from the MB and, in turn, the MB would have more opportunity to broadly review the work of the CBP identifying opportunities for collaboration and increased program effectiveness. The Leadership GIT will provide the needed support to implement this decision-making process. Finally, as more GITs articulate the rationale for their work and identify their actions and needs, the substance of a coordinated implementation strategy (as recommended by the GAO) will eventually take shape leading to more effective targeting of resources.

V. Short Term Next Steps Leading up to Executive Council Meeting

1. The SAV and Agriculture workgroups and the Watersheds GIT will have content built out using the Decision Framework in Chesapeake*Stat* in advance of the EC Meeting.
2. Upon MB approval, this proposal would be presented to the PSC at their May meeting.
3. At the May MB meeting, options (and tentative schedule) for cross-cutting topics would be discussed for the next several MB meetings.
4. Discuss with MB and EC Planning Committee whether one of those topics is timely for demonstration of the benefits of implementing this framework process at the private portion of the EC Meeting.