BIENNIAL STRATEGY REVIEW SYSTEM
Chesapeake Bay Program

Management Board Follow up Action

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.

On August 13th, the Management Board (MB) requested the Water Quality Standards Attainment and Monitoring Outcome to provide summaries for three asks of the Management Broad:

- **Monitoring support,**
- **Jurisdictional involvement to support policy decisions,**
- **and the Criteria Assessment support**

We have prepared a one-page summary for each of these items that provide more detail on the individual requests and how MB members can assist. All three summaries are in this document.

Monitoring Support:

1) **We request that MB member institutions involved in providing monitoring support maintain existing support levels.**

   Maintaining current support provides an important foundation to sustaining, leveraging and growing monitoring capacity as we explore and invest in options to improve data collection and analyses across the CBP monitoring programs. Monitoring support includes, but is not limited to, current funding levels, staff time and resources in the field, lab, managing data, conducting analyses, contributing to reporting, and related in-kind support. Contributions to capacity include support from many different MB member institutions including federal agencies such as EPA and USGS, jurisdictional agencies, and other partners.

2) **We request that the MB commit to assessing how their state, agency or institution can use matching funds to improve capacity in the program.**

   About a decade ago, a change in EPA policy about allowable matching funds for Clean Water Act 117e monitoring grants allowed restoration funding and monitoring funding to serve as State match in order to receive Federal support. Some state monitoring grant matching budgets now appear dominated by restoration funds which, on the surface, appears to be limiting monitoring support when monitoring outputs of traditional program investments are declining. However, monitoring support may blend workloads across diverse grants in the State. We ask the states and EPA to work with a subgroup under the Integrated Monitoring Workgroup to evaluate the impact of present match funds policy on investments in the monitoring program. The team should report in a timely manner on the pros, cons, and impacts on capacity support of a potential revision of CWA 117e 1:1 match requirements such that monitoring and analysis funding is required towards some or all matching support. The team should report on this approach as an option for improving criteria attainment assessments in the Bay and sustaining the nontidal network.

3) **We request the MB to commit to a future discussion on alternative financing strategies for the monitoring programs.**

   STAR will take the lead in meeting with financial sector professionals to develop possible ideas to frame this discussion. We ask the MB to identity staff that would work with STAR to develop ideas for a more in-depth discussion with the MB. The potential outcome of a discussion with the MB would be an action team to explore and recommend in a timely manner alternative financing strategies for supporting capacity needed to sustain effective water quality monitoring programs that meet decision-support needs of managers and policy-makers.

4) **We request the MB to ask the WQGIT and STAR to now incorporate available Tier 3 Citizen Science data from the Chesapeake Monitoring Cooperative database into water quality standards attainment assessments.** In addition, the MB should request the WQGIT to include this item in their Logic & Action Plan so that it is a priority for the GIT for the next two years.

   The Chesapeake Monitoring Cooperative has been funded by EPA to help coordinate citizen science data collection that fills gaps in bay and watershed monitoring. States and EPA should expect an annual accounting of the contributions of this investment toward improving water quality condition characterization for criteria underpinning the water quality standards attainment assessments.

Jurisdictional involvement to support policy decisions:

1) **We request that the MB make their jurisdictional staff available to improve analysis and utilization of monitoring results to inform 2-year milestones, and help identify other jurisdictional agencies or partners who should be involved in partner meetings.** The CBP will organize meetings with each jurisdiction and we need the MB to help ensure the appropriate staff are involved for successful interaction.

   Monitoring trends and analysis can be useful to inform and adapt WIP implementation, including helping to understand factors driving trends and targeting efforts geographically, by sector or by practice. The 2-year Milestones presents an opportunity for the CBP and the jurisdictions to work together to utilize results from monitoring assessments to inform WIP implementation and Milestone development.

   CBP technical staff plan to engage with the jurisdictions in advance of Milestone development to collaborate on monitoring trends analyses that would be useful for informing each jurisdiction's WIP implementation. We request that the MB members commit to having agency staff participate in these collaborations by:
   1) Identifying jurisdictional technical staff who can help scope monitoring analyses, have knowledge of jurisdictional data sources, and can participate in conducting analyses with CBP staff.
   2) Identifying staff or points of contact from jurisdictional agencies other than the lead WIP agency (e.g. agricultural agencies, natural resource/conservation agencies, transportation agencies) or other key partners (e.g. MWCOG), who could contribute to these discussions.

Criteria Assessment Support:

1) **We request the MB to ask STAC and STAR to work with the Bay science and management communities to commit to 1) adopting data from nontraditional monitoring sources into assessments, 2) incorporating data from new technologies into assessments, 3) updating analysis approaches to accommodate new data sources and 4) update decision protocols for evaluating analysis results.**

   Adaptive monitoring is necessary in order to reverse the decline in data collections – a decline that has occurred due to reductions in traditional monitoring capacity (a traditional monitoring capacity that has only ever been characterized as marginal in its support of water quality standards attainment assessment and adequate in its support in the watershed). New technologies, new data streams, new tools of interpretation, and new sampling strategies are available that, as a package, can help address many gaps in assessing Bay criteria and improve accuracy of load estimates in the watershed. STAC and STAR (e.g. Criteria Assessment Protocol Work Group) should work together to establish in a timely manner (e.g., 2 years) a value assessment of advanced monitoring and assessment options with comparison of information gains and cost savings afforded by adoption of new data collection and analysis protocols compared with and complemented by existing monitoring efforts.

2) **We request that the MB provide a list of essential jurisdictional participants for the Criteria Assessment Protocol workgroup (CAP WG).**

   The Criteria Assessment Protocol Workgroup's objective is to prioritize and resolve water quality criteria assessment protocol questions from the partnership. The Criteria Assessment Protocol Workgroup draws upon the talents and input from state, federal, river basin commission, and academic, as well as regional and local government and municipal authority partners. In order to direct science-based recommendations on the utility and value in adopting new data streams, technologies, and analyses to expand capacity and improve decision-support as listed in the prior MB ask, then additional expertise is needed in the CAP WG activities. Recommendations on attendees with helpful skills include but may not be limited to 1) staff working on tidal water quality criteria assessment, its sampling design and strategies, 2) staff with statistical and GIS experience to provide insights on existing and proposed analyses of traditional and new data streams, 3) staff with water quality modeling experience to provide input on data interpolation, 4) staff involved in nontidal and tidal monitoring program management.