



STATE WATER QUALITY ADVISORY COMMITTEE

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April 24, 2015

Mr. Nicholas DiPasquale
Director
Chesapeake Bay Program Office
410 Severn Avenue - Suite 109
Annapolis, Md. 21403

RE: Chesapeake Bay Management Strategies

Dear Mr. DiPasquale:

The Maryland State Water Quality Advisory Committee (SWQAC) is the federally mandated public participation group that advises State agencies receiving EPA funding, on programs and activities that may have impacts on the improvement and protection of water quality. Thank you for the opportunity to comment on the Chesapeake Bay Management Strategies. SWQAC commends the management strategies, which appear to incorporate inputs from a diverse group of stakeholders.

The strategies appropriately emphasize the importance of ongoing and new measurement and monitoring efforts, as well as other needs critical to success. A good deal of thought and effort has evidently gone into these strategies, but successfully implementing them will certainly take much more time and sustained effort.

SWQAC has reviewed the management strategies, and submits the following comments:

General Comments on the Management Strategies:

1. The proposed biennial workplans are a good idea. Considering, however, the number and complexity of the identified elements and tasks associated with these strategies, there is also a need for each management strategy team to create broader, staged implementation frameworks looking beyond the next two years, that identify shorter-term, intermediate-term, and longer-term tasks. The shorter-term tasks should focus on low-hanging fruit and key elements that will be critical to implementing intermediate and longer-term tasks. Such broader frameworks for strategy implementation can be updated as needed, and will provide the context for formulating the biennial workplans. This might be worth calling out in each strategy under the Biennial Workplan sections, so everyone is on the same page going forward.
2. Many of the management strategies identify points of overlap with other management strategies, and state that cross-strategy support and coordination will be essential. As a result, cross-strategy support/coordination should begin as early in the process as possible, to inform the identification of short, intermediate, and long-term tasks, and the first biennial workplans. Specific tasks, actions, meeting strategies, and data sharing needed to achieve the needed cross-strategy coordination will need to be clearly identified. Some of the strategies are complicated enough just by themselves, so this will be no easy task.
3. At some point (probably as part of developing the biennial workplans), the strategies that overlap with or inform other strategies should have their respective specific management, monitoring, and assessment approach implementation tasks cross-referenced, as appropriate. This will help cooperative and collaborative efforts across strategy implementation teams. This might be worth calling out in each strategy under the Biennial Workplan sections.

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4. Each biennial workplan should contain progress milestones and actual measured outcomes.
5. Some of the sections in the strategies, particularly the management approaches, monitoring progress, and assessing progress sections (V, VI, and VII, respectively) use a bulleted style to highlight key elements and tasks. It would be much better to use a uniform outline style for all of the strategies (e.g. V.l.a.i, etc.), especially in view of the number and complexity of the identified tasks. To support the development of workplans, cross-outcome coordination, and implementation of the strategies, it will be important for team members and other stakeholders to be able to refer quickly and reliably to all of the different strategy elements. It will be very difficult to do this if bullets are used.
6. Some of the management, monitoring, and assessment sections in the strategies identify key tasks and elements within the text itself. These too, should be highlighted and broken out using a uniform outline style, again, so they will be easier to revisit and reference for implementation planning and task execution.
7. As strategy implementation efforts proceed, a better understanding of the identified gaps will undoubtedly occur, along with the identification of new gaps. This information will need to be made known to all of the outcome implementation teams as part of cross-outcome workplan coordination, and factored into the management, monitoring, and assessment approaches as they evolve.
8. In addition to the biennial workplans, it would be a good idea to create a biennial progress report for the overall Bay Strategies implementation effort, with subsections for each outcome. These reports would be a good place for summarizing the most current understanding of the gaps associated with the various outcomes (see General Comment 7).
9. Quite a few first-time uses of acronyms are not immediately preceded by the full spelling-out of what the acronym stands for. This needs to be corrected.
10. In addition to making sure that each acronym is identified in the text, a list of acronyms used should appear in each strategy, especially given the number of acronyms, and the complexity of the strategies. This will make it easier than searching back through the text every time the reader forgets what an acronym stands for.
11. There seem to be typos throughout the strategies, some of which are identified in the comments that follow. The strategies need to be given closer scrutiny to identify and correct any others.

Comments on Specific Management Strategies:

Blue Crab Abundance and Management Outcome:

1. Section I, Management: Allocation-Based Framework, 2nd paragraph, 2nd sentence: A part of the sentence seems to be missing.
2. Section III, Factors Influencing, Data Gaps: It would be interesting to see a Table identifying what gaps are being experienced by which of the three management entities (VMRC, MDNR, PRFC). If there are data gaps across the board and not jurisdictional dependent, that should be said.
3. Section III, Factors Influencing, Population Dynamics, 3rd sentence: insert "by" after "influence"
4. Section III, Factors Influencing, Ecosystem Factors, Predation and Prey Availability, 5th sentence: insert "a" after "also"
5. The abundance of the fishery depends greatly on many factors, some controllable for the most part (such as catch information) as well as uncontrollable (such as climate change, the wind that blows the larvae back into the Bay etc.). But of the controllable factors, there is still a weak effort as far as collecting accurate recreational catch all across the Bay. This needs to be addressed further. More accurate information is needed from Maryland,

Virginia and from the Potomac River Fisheries Commission and now is the time to assert an approach in this direction.

Oyster Restoration Outcome:

1. Why is the Potomac River Fisheries Commission not mentioned as a partner or as a key participant? The Commission has established oyster sanctuaries on the Potomac River (though this is a much larger area than the six tributaries identified as part of the 10 tributary plan) and is requiring detailed data as a result of the establishment of those sanctuaries both as to retaining closure as well as opening portions of the oyster bars. It would seem to be a good idea to engage the Commission from a scientific perspective as well as a “findings” perspective for data that could provide additional information for overall management.

Fish Habitat Outcome:

1. The Potomac River Fisheries Commission should be added to those that are involved in this process.

Toxic Contaminants Policy and Prevention Outcome:

1. The State of Delaware appears to have moved forward with a good approach for the Delaware River, and it might provide a good template to follow. Those involved with the Bay effort should model or re-design their efforts to reflect those of Delaware.

Toxic Contaminants Research Outcome:

1. This document closely tracks, but expands upon, what is referenced in the toxic contaminants policy and prevention outcome.
2. It appears that not all of the data-gathering or examination of the potential research “out there” has been done. Even if this is accomplished, there is no consistent rubric with which to measure impact on an inter-state, inter-jurisdictional level. This is the one area where something could be accomplished through a consistent management strategy.

Climate Resiliency Outcomes:

1. Monitoring is important, as are measures for protection and restoration. But we also need to examine policies and regulations that exist that “put us in a box” for decision-making that may require new species (reflective of transition over time) to be considered and introduced that hopefully will not become invasive.

2017 WIP, 2025 WIP and Water Quality Standards Attainment and Monitoring Outcome:

1. The outreach component (approaches targeted to local participation) needs to be expanded and enhanced.
2. There are two additional components vital to the success of this management strategy:
 - a. The first is to make sure that all of the monitoring gets done not only under this management strategy but that the monitoring associated with the other management strategies either be incorporated (in some way) into this monitoring effort or that there be a strong linkage of all monitoring activities one with the other. There is never sufficient money or entities to get this accomplished, hence the need for close collaboration and joint involvement with this part.
 - b. Depending upon local efforts for local participation is fine as far as it goes, but it is not a very strong approach. The results from the re-tooling of the model are going to be very important and leaving the

effort to local participation is neither consistent nor strong. There should be a more pro-active effort for this piece.

Local Leadership Outcome:

1. Section IV, Gaps subsection: The gaps identified in Section I should be included in the list of gaps in this subsection. These include: no metrics currently available to measure the local leadership outcome, no current knowledge baseline, and no existing effective way of measuring the knowledge and capacity of local officials.
2. The gaps identified in Section I are mentioned in Section VI, Monitoring Progress, but filling these gaps should be mentioned up front in Section V, Management Approaches, because they are not only important to monitoring progress, but also in developing the most effective management approaches.
3. Section IV, Actions, Tools and Support to Empower Local Government and Others section: 1st sentence: replace “if” with “of”.
4. Section IV, Actions, Tools and Support to Empower Local Government and Others section: 2nd sentence: The meaning of this sentence is not clear.
5. This strategy, like most of these strategies, is very complex because the issues and challenges are complex. The large set of possible steps and tasks proposed, however, could itself become an impediment to effective progress on this outcome. This strategy is a good example of why additional thought and planning will be needed before development of the first biennial workplans (see General Comment 1). Would it be possible to come up with an approach that utilizes existing local elected and appointed officials’ “already been scheduled” meetings to add to the knowledge base about the Bay Agreement? For example, MML holds meetings regularly in addition to the two conferences.
6. Couldn’t time be set aside to educate local officials about how their decisions have an impact on the overall improvement of the Bay? After a series of utilizing “already been scheduled meetings” for this purpose, a survey could be administered to assess knowledge gained.
7. As the Local Leadership Outcome strategy notes, there is high turnover of local officials so setting up a rather complicated framework to measure, hold coursework etc. may not fit this high turnover.
8. Information is needed in an understandable form for local officials to refer to when making the decisions that they have to make at the local level. This is essential. If emphasis could be placed on this piece—much progress could be achieved.

Citizen Stewardship Outcome:

1. This strategy is also particularly complex. Again, a good deal of additional thought and planning will be needed before formulating the first biennial workplan, to avoid being impeded by the profusion of the identified elements and tasks. Assigning responsibilities for and coordination among, all these different tasks will be very challenging.
2. It will also be very challenging to establish a uniform way in which one will be able to measure knowledge, effect of participation etc. If not, the implementation of this strategy may not yield significantly more information than is available now.
3. The Environmental Literacy Outcomes could very well be a subset of the citizen stewardship outcome because one could and often does address literacy through stewardship projects and programs.
4. Because they are so closely intertwined, perhaps the Citizen Stewardship and the Environmental Literacy outcomes could be merged, even though one is geared towards education at the local level (literacy) and the other one towards action groups.

Riparian Forest Buffers Outcome:

1. Section III, 1st paragraph, second sentence: Insert “predominantly” between “is” and “an”.
2. Section III, Factors listed under the 2nd paragraph: add additional factor: “m. Lack of sufficient review and maintenance coordination to prevent stormwater from new developments and redevelopments from bypassing riparian areas”
3. Section V, Table 1, Programmatic Barriers: Suggest adding the need to sell RFB’s as a cost-effective way for farmers to meet Bay WIP load allocations, especially in view of the cropland that is often lost in doing so.
4. Section V, Table 1, Establishment/Maintenance: Suggest adding the need to provide guidance on what is needed to optimize survival of RFB and the establishment of a multi-level forest ecosystem, including forest floor (especially in terms of deer and invasive plant species management).
5. Somewhere in this strategy the need to compile as much pertinent data as possible on what it takes to properly establish and maintain healthy multi-functional riparian forest buffers should be addressed.
6. For this particular effort it would be good to see what each jurisdiction (state, commonwealth and the District) has accomplished. It would also be good to see that of the buffers planted, what percentage of them have failed (from an acreage perspective) as well. Otherwise it looks like x number of acres have been planted each year but there is no sense as to how many acres are in a good and strong position as a result. This would help everyone to hone in on the top two or three steps that could be taken to increase the acreage planted as well as to maintain that acreage over time.
7. Can the Waterkeepers be of any assistance across the board with this effort (along with watershed associations across the board where they exist)?

Tree Canopy Outcome:

1. This is a particularly thorough strategy. In order to attain this outcome however, there must be standards built in to development that mandate that certain percentages of a development or re-development attain x percent of tree canopy creation over time.
2. Table 1 and tables in Appendix 1: Multi-page tables should repeat the column headings at the top of each page.
3. Table 1, Tree Planting, Local Funding/Partnerships: add “Montgomery County Shades of Green Program”, “Leaves for Neighborhoods Program”, and “Montgomery County Street Tree Planting”
4. Appendix 1, Maryland, Assessment/Planning, Montgomery (total 56 places), UTC Goal column: replace “varies by zoning” with “in targeted master plans”

Public Access Site Development Outcome:

1. This is a well stated management strategy. It might be worthwhile to consider mentioning military installations and promoting access to those who work on the various bases throughout the Bay and to build in access opportunities through future BRACs.

Land Use Options and Evaluation Outcome:

1. Section I, Goal, Outcome and Baseline: There is a need to include the complementary side to conserving landscapes, which is encouraging smaller lots, cluster development, focusing growth in designated growth areas, redevelopment, and infill development.

2. Section VII, Adaptively Managing: Suggest adding additional metrics on implementing specific land use policies and programs that will serve this strategy. These additional metrics will complement the land conversion rate metrics.
3. The Environmental Law Institute and the Resources for the Future ought to also be noted with the other organizations that have reviewed planning tools and their effectiveness.
4. In addition to policy options, incentives and planning tools, there should be specific mention made of tax incentives as well as taxing can be designed to discourage the conversion of land in some areas while providing ways to encourage it in other areas.
5. To retain Maryland's working lands something has to be done to make those lands more affordable so that they can continue to be managed as working lands. In addition, something also has to be done to address the aging population of those who are managing those working lands as well. Both of these have to be factored into the equation somehow.
6. In addition to those items noted above, there have to be ways to deter local governments from establishing areas for open space and use and then re-subdividing those lands to be used for other developments, thereby losing the open space areas. This can happen when the land eventually is re-zoned from open space and use so it can be further developed (e.g. for residential townhomes). There have been many cases where the green space required at one point was subsequently lost to development with very few people knowing about it because minor subdivisions in some jurisdictions do not have to come under public review.

Land Use Methods and Metrics Development Outcome:

1. Somehow the underlying zoning of important areas of open space, natural resources, farmland and forestland (particularly in those areas that are urban and suburban-oriented) needs to be factored in.

Protected Lands Outcome:

1. Section IV, Current Efforts and Gaps, second paragraph: The lead agency for LandScope should be identified.
2. Section IV, Current Efforts and Gaps, 4th paragraph, 3rd sentence: Is the intention to identify and acquire datasets not currently reflected in LandScope? If so, this should be indicated. If not, the reasons should be explained.

Stream Health Outcome:

1. Introduction, 1st paragraph, 4th sentence: should read, 'the success....' not 'this success'
2. Section II, Participating Partners: add SWQAC to list of participants
3. Section II, Participating Partners, Likely Participating Jurisdictions: should read "Maryland Water Monitoring Council"
4. Section III. second paragraph, 4th sentence: should read "stream" (not steam)
5. Section III, Factors Influencing Success, Policy and Administration: SWQAC did not get a chance to review the content that was referenced here under first bullet – SWQAC would like to review it, if possible. Also, incentives with respect to scale should be addressed (i.e. It is important not to ignore small headwater channels that play a vital role in favor of larger order streams). (The Stream Functions Pyramid/Functional Uplift approach may provide a framework for this).

6. Section V, Chesapeake Bay Regional General Permit for TMDL section: The RGP for TMDL may require so much monitoring data to establish baseline conditions to show uplift, that it becomes cost prohibitive. In addition, this can add years to the project timeline. The pooled monitoring efforts should help address some of these issues by eliminating requirements for pre-restoration monitoring data.
7. Section VI, Management Approaches, 3rd bullet: Additional research and science is needed to provide a better and more comprehensive understanding of stream channel processing of nutrients to better quantify load reductions associated with 'healthy' streams.
8. Section VI, Management Approaches, 3rd paragraph: While upland BMPs are vital to reestablishing pre-development (or improving) hydrology, often the damage to the stream channels is done, and streams will require restoration to achieve functional uplift.
9. Section VI, Management Approaches: The functional uplift framework (indicated in Figure 1) with suggestions for adding similar language into the MS4s, will help incentive projects to go beyond the limited objectives of reducing sediment and nutrients.
10. Section VI, Management Approaches, 4th paragraph, 3rd sentence: should read 'A supplemental...'
11. Section VI, Management Approaches: Strategy 2 is excellent.
12. Section VI, Management Approaches: Strategy 3 is incomplete, and will need to be reviewed following state input.
13. Section IX, Supplemental Table, Potential Indicators, f: Should read '...Reduction in ...'
14. Table 2 and Supplemental Table: Multi-page tables should repeat the column headings at the top of each page.

Healthy Watersheds Outcome:

1. Section I, Goal, Outcome and Baseline, Baseline and Current Condition: The strategy indicates that a strategic decision was made to not seek a common definition for the healthy waters and watersheds addressed in this Outcome. SWQAC recognizes that states should be able to define healthy watersheds as appropriate considering their particular Use Classes and water quality standards. SWQAC supports, however, the ongoing Chesapeake Bay Program efforts to conduct a comparability study of healthy watershed and data quality control and quality assurance standards and protocols among the Bay states.
2. Section VI, Monitoring Progress: It seems that the Monitoring Needs subsection should come before the Monitoring Approaches subsection. The Monitoring Approaches subsection should then address the needs.

Wetlands Outcome:

1. This strategy should state that it will coordinated and collaborate with other managements strategies, such as Healthy Watersheds, Riparian Forest Buffers, Local Leadership, Black Duck, Environmental Literacy, Land Use Options and Evaluation, Citizen Stewardship, etc.
2. This strategy should define Wetland Restoration (vs. Wetland Creation) and that wetland restoration (where wetlands historically existed) is typically more successful.
3. Section IV, Data: Private consultants may be another source for existing data.

Submerged Aquatic Vegetation Outcome:

1. The Team Lead and Workgroup deserve credit for preparing a sound and viable strategy. However, development of this management strategy is clearly a work in progress. The strategy relies heavily on indirect efforts such as education, outreach, citizen involvement and research rather than actual establishment of SAV gardens and beds. This is not a criticism. Unlike riparian buffers, planted SAV beds are very much at the mercy of their aquatic environment, over which we have far less control. This fact is appropriately recognized in the Strategies Section IV which states that successful SAV restoration is dependent upon improved water clarity, which depends on meeting the Bay TMDLs, which like this Strategy is a work in progress.
2. Section II, Participating Partners: Perhaps these entities are included under broader titles of partners but the partners list should be expanded as much as possible to include (suggested):

Maryland Department of Agriculture
Smithsonian Environmental Research Center
University of MD Horn Point Center for Environmental and Estuarine Studies and the Solomons Chesapeake Biological Laboratory.
Chesapeake Bay National Estuarine Research Reserve (CBNERR)
Private citizen groups (a few of many possibilities in this category):
Izaak Walton League of America (IWLA)
Otter Point Creek Alliance (OPCA)
The Nature Conservancy
Ducks Unlimited
Maryland Watermen's Association
Marina communities

In the same section, primary partners such as Maryland, Virginia, DC, USF&W, CoE, etc. are labeled as "likely participating jurisdictions." If they are not definite partners in this effort then these strategies will be ineffective.

3. Section IV, Current Efforts and Gaps: This section provides stark clarity of the challenge. This SAV outcome goal of 185,000 acres is unachievable without a significant increase in funding. The current funding needs of agencies are unmet. If this does not change, we are already seeing the final outcome.
4. Section VII, Assessing Progress: Perhaps this section should be renamed. For the three years stated, 2010 to 2013, Bay-wide acres of SAV have regressed, declining by 25%.
5. Section VIII, Adaptively Manage: This section is essentially blank. There should at least be a descriptive statement and a target timeframe for completion of that section.

Brook Trout Outcome:

1. The strategy is not aggressive enough. It assumes that streams that do not have an existing population of brook trout have little potential for restoration of brook trout and essentially writes them off. In fact, there are many streams that have lost their brook trout in the past because of logging, farming and other land modifying activities. There are dozens of ponds that have been built by damming small headwater trout streams. They warm water in summer and discharge this warm water downstream creating temperatures too high for brook trout. There are techniques for mitigating this effect on ponds which could restore miles of brook trout habitat in Baltimore County alone. The restoration of riparian shade could also do much to restore brook trout habitat in extensive areas. Many of these areas have not had brook trout in them for decades or longer, but could actually support brook trout populations today with little effort.
2. Section I, Brook Trout Outcome: Since each stream section is to be monitored every 5 years, shouldn't there be an interim goal for 2020?

3. The Maryland Fisheries Service and the Department of Natural Resources will need additional staff resources to meet a 5-year monitoring interval.

Thank you for the opportunity to provide comments on these important strategies. SWQAC understands that the Bay Management Strategies approach is an evolving process and we hope to have the opportunity to provide additional comments and input in the future as the strategies continue to be developed and implemented.

Sincerely,

A handwritten signature in black ink that reads "Julie Pippel". The signature is written in a cursive, flowing style.

Julie Pippel, Chair

cc: Mark Belton, Secretary, Maryland Department of Natural Resources
Ben Grumbles, Secretary, Maryland Department of the Environment