

Appendix B. Programmatic Policy Approach: Guidance Example

(Under development by the Climate Resiliency Workgroup and Water Quality Goal Implementation Team)¹

Programmatic “qualitative” Policy Approach: Optimize Phase III WIP Development and Adaptively Manage BMP Implementation

Description: Within a practical time-period applicable to an individual source sector, initiative or action, the Partnership will consider new information on the performance of BMPs, including the contribution of seasonal, inter-annual climate variability, and weather extremes. Jurisdictions will assess this information and their support programs and adjust plans through the two-year milestone process to implement their Phase III WIPs to better mitigate anticipated increases in nitrogen, phosphorus, or sediment due to climate change. Jurisdictions will provide a narrative consistent with the Guiding Principles that describes their programmatic commitments to address climate change in their Phase III WIPs.

Implementation Considerations: The CBP’s will relay its assessment of the projected impacts and modeling results of climate change in 2025 and 2050 for a range of scenarios ~~would be relayed~~ to the jurisdictions. The jurisdictions ~~would be expected to~~ include a narrative strategy in their Phase III WIPs, outlining their programmatic and/or numeric commitments to address projected impacts consistent with the Guiding Principles, outlined below (approved by the PSC on December 13, 2016).² Narrative strategies ~~could can~~ vary across jurisdictions; however, by following a “narrative template,” they ~~could can~~ be standardized or harmonized to provide ~~for~~ transparency, accountability, and consistency. EPA ~~could can~~ potentially use these elements as a guide to evaluate the proposed narrative strategies in the Phase III WIPs.

To inform implementation, over the longer-term, ~~it is expected that~~ the Partnership expects ~~to would need to work together to~~ facilitate the collection and evaluation of BMP performance data. This will enable the Partnership to learn more about BMP performance and ~~the its~~ sensitivity ~~of BMPs that are~~ attributable to climate change, ~~to and~~ allow s for consideration of these factors ~~while for adaptive management in adaptively managing for the~~ long-term ~~change~~. Periodically, in support of this action, the CBP Partnership, through STAC working consultatively with CRWG, ~~could can~~ compile and assess the latest climate and ecosystem science, research, or data, and relay this information to jurisdictions.

¹ Appendix B includes informational material compiled by the CRWG, including a “Sample Narrative Template.” This document outlines a potential means and method for implementation of the proposed programmatic policy approach. Once the Partnership reaches agreement on the approach to consider climate change in Jurisdictions’ Phase III WIPs, formal implementation guidance will be developed and approved by the CRWG and WQGIT.

² Jurisdictions should also reference Chesapeake Bay TMDL, Section 7: Reasonable Assurance and Accountability Framework; and, Section 10: Implementation and Adaptive Management for guidance on developing narrative strategies.

Sample Narrative Template:

I. Scientific Assessment and Conclusions

- a) The CBP's assessment of the projected impacts and modeling results of climate change in 2025 and 2050 for a range of scenarios ~~would~~ be relayed to the jurisdictions. In response, jurisdictions should describe method(s) for gathering and assessing additional scientific data and information. This element allows for flexibility in jurisdictions' approaches to addressing climate change, and can incorporate local knowledge and information where quantitative data may be lacking.
- b) Identify conclusions based on scientific assessments.
- c) Address how the scientific conclusions guided ~~their~~ the jurisdiction's programmatic and/or numeric commitments. Jurisdictions should use local expertise and knowledge along with the latest climate information and science to inform their programmatic and/or numeric commitments.

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II. Programmatic and/or Numeric Commitments

- a) Outline programmatic and/or numeric commitments to address projected impacts consistent with the Climate Resiliency Guiding Principles. Commitments may vary across jurisdictions but ~~could~~ can include activities such ~~as~~ as undertaking demonstration projects; prioritizing implementation of climate-resilient BMPs; approaches for assessing vulnerability of planned BMPs; or enhancing plans, policies, regulations or on-the-ground efforts to address impacts, etc. Jurisdictions could also pursue BMPs with clear co-benefits and climate change-related positive impacts (e.g., habitat restoration and flood control).

III: Phase III WIP Development: Planning and Scoping³

- a) Describe the process used to guide Phase III WIP development, in accordance with the approved Climate Resiliency Guiding Principles for WIP Development:
 1. *Capitalize on "Co-Benefits"* – maximize BMP selection to increase climate or coastal resiliency, soil health, flood attenuation, habitat restoration, carbon sequestration, or socio-economic and quality of life benefits.
 2. *Account for and integrate planning and consideration of existing stressors* – consider existing stressors such as future increase in the amount of paved or impervious area, future population growth, and land-use change in establishing reduction targets or selection/prioritizing BMPs.
 3. *Align with existing climate resiliency plans and strategies* – align with implementation of existing greenhouse gas reduction strategies; coastal/climate adaptation strategies; hazard mitigation plans; floodplain management programs; fisheries/habitat restoration programs, etc.

³ See Johnson, Z. et. al. In-Press. [*STAC Workshop Report: Monitoring and Assessing Impacts of Changes in Weather Patterns and Extreme Events on BMP Siting and Design*](#). (in press) for more information and guidance on implementation.

4. *Manage for risk and plan for uncertainty* – employ iterative risk management and develop robust and flexible implementation plans to achieve and maintain the established water quality standards in changing, often difficult-to-predict conditions.

5. *Engage Local Agencies and Leaders* – work cooperatively with agencies, elected officials, and staff at the local level to provide the best available data on local impacts from climate change and facilitate the modification of existing WIPs to account for these impacts.

IV. Phase III WIP Implementation: BMP Evaluation Process⁴

a) Describe the process used by jurisdictions to implement WIP programmatic and/or numeric commitments, including proposed the qualitative and/or quantitative evaluation of and implementation of BMPs, in accordance with the approved Climate Resiliency Guiding Principles: WIP Implementation.

1. *Reduce vulnerability* - use “Climate-Smart” principles to site and design BMP’s to reduce future impact of sea level rise, coastal storms, increased temperature, and extreme events on BMP performance over time. Vulnerability should be evaluated based on the factor of risk (i.e. consequence x probability) in combination with determined levels of risk tolerance, over the intended design-life of the proposed practice.

2. *Build in flexibility and adaptability* - allow for adjustments in BMP implementation in order to consider a wider range of potential uncertainties and a richer set of response options (load allocations, BMP selections, BMP redesign). Use existing WIP development, implementation and reporting procedures, as well as monitoring results and local feedback on performance, to guide this process.

V. Documentation, Reporting and Adaptive Management

- a) Establish a timeline for submission of documentation and reporting on all of the above. Reporting should include findings of new or updated scientific assessments and resulting changes to Phase III WIPs, including adjustments to two-year milestones. Documentation, reporting, and adaptive management shall be administered in accordance with Chesapeake Bay TMDL, Section 7: Reasonable Assurance and Accountability Framework⁵; and, Section 10: Implementation and Adaptive Management⁶.
- b) Jurisdictions would identify programmatic and/or numeric efforts and plans to adaptively manage. Jurisdictions should describe processes that will allow for changes in BMP selection or WIP implementation, over-time, as new climate and ecosystem science, research, or data becomes available and the understanding of the

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Commented [HJ2]: I’m confused about the meaning of “evaluation” in this section. The Partnership, not the jurisdictions, evaluates BMPs to determine their nutrient/sediment effectiveness in the Watershed Model. EPA evaluates the jurisdictions’ annual progress, both numeric and programmatic. So, “evaluation” here seems more like “self-evaluation” or “critical self-assessment”...or a strategic review...I am trying to avoid the term “adaptive management” since it is used in the next section.

Commented [HJ3]: The report isn’t “in press” anymore, is it?

⁴ See Johnson, Z. et. al. In-Press. [STAC Workshop Report: Monitoring and Assessing Impacts of Changes in Weather Patterns and Extreme Events on BMP Siting and Design](#). (in press) for more information and guidance on implementation.

⁵ Chesapeake Bay TMDL, Section 7: Reasonable Assurance and Accountability Framework

⁶ Chesapeake Bay TMDL, Section 10: Implementation and Adaptive Management

impact of how changing seasonal, inter-annual climatic, and weather conditions may affect the performance of watershed restoration practices.