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Chesapeake Bay TMDL Midpoint Assessment Partnership Meetings Between EPA Region III and the Chesapeake Bay Watershed Jurisdictions

Summary of Key Findings[1]

Phase 6 Watershed Model and Implications for the Partnership

- EPA encouraged the seven Bay watershed jurisdictions to take advantage of the one-year review period of the Phase 6 suite of modeling tools in order to determine whether the data is representative and simulated in the tools as it need to be.
    - EPA offered to have a team travel to each of the jurisdictions when the next beta version of the Phase 6 Watershed Model is released to review the data inputs/outputs to ensure the information is attuned to the state's issues, and to ensure accuracy and confidence.
- The Partnership's Modeling Workgroup continues to host webinars for the Phase 6 modeling documentation, with a specific emphasis on recommending "assignments" for what the source sector workgroups should be reviewing in order to effectively use their time and resources in the review period.
    - The Modeling Workgroup will keep working on accessible and digestible summaries of the Phase 6 model runs and a data visualization tool has been developed to assist in the modeling review period.
    - The Modeling Workgroup will develop guidelines for the fatal flaw review period of the Phase 6 modeling tools.
- The CBPO Modeling Team is conducting overall comparisons of monitoring data and watershed model calibration data, but they are not getting down to the very local scale.
    - That level of review is what EPA is asking the jurisdictions to do to ensure consistency between the monitoring station data and the watershed model calibration data, particularly as it relates to where there might be overestimates or underestimates between the two data sets.
- The Partnership needs to have confidence in the Phase 6 modeling tools to run initial scenarios and to understand how the levels of effort has changed, and what these changes mean for the Phase III WIP planning targets and decisions on key policy issues.
- The modeling tools shouldn't be the driver behind any changes in levels of effort. Those drivers should be related to issues such as addressing Conowingo Dam and climate change.
- The state jurisdictions feel that the optimization functionality will be very helpful in the Phase III WIP process. They would like to see the analysis function in CAST improved and automated.
- Nutrient spread and nutrient management are key decisions for the modeling tools, as well as several BMPs that the state jurisdictions are relying on for the Phase III WIPs. Therefore, the Partnership needs to adhere to the deadlines and deliver these data inputs to the Modeling Workgroup on time.
- The development of a communications document about the limitations and the accuracy of the Phase 6 suite of modeling tools and the modeling framework would be very helpful in communicating the refined suite of Phase 6 modeling tools during the local engagement and local area target development processes.
- How the Partnership deals with understanding increased phosphorus-saturated soils from the Eastern Shore and developing improved estimates from shoreline erosion and tidal wetlands that impact those local scales will help the Delmarva jurisdictions get a more realistic picture of local water quality.

[1] The purpose of this document is to provide a high-level overview of the discussions EPA held with each of the seven Bay jurisdictions and the Chesapeake Bay Commission on key Midpoint Assessment and Phase III WIP issues. Those specific discussions were held in confidence and no summary finding is attributed to a specific jurisdiction and/or individual.

- The Partnership may want to explore what impacts multiple pollutants – how efforts to restore the Bay also helps the locality comply with their priorities. There is a commitment in the Bay Agreement to look at the co-benefits of BMPs. If we get a better quantification of these co-benefits, we can build it into our decision support tools.

Factoring in Monitoring Trend Explanations and Implications

- EPA and USGS will work together to host a series of webinars to bring the Partnership up to speed on the monitoring and trends data, with possible state by state or watershed break-outs to tease out a finer level of detail on understanding and explaining trends. There is a need to match up states' expectations of the trends data with the CBPO monitoring trends team and identify what scale and level of understanding the states are comfortable with.
- EPA recommended each of the seven Bay watershed jurisdictions work with USGS and the CBPO Modeling Team to directly compare the USGS watershed yield data by station with the appropriate Phase 6 Watershed Model calibration estimates.
- The jurisdictions want to be sure that the modeling data supports the water quality monitoring trends, and to gain a better understanding of the "stories" or factors that guide those trends since the cause and effect relationship is not quite known. Without those explanations, states could have a difficult time describing and communicating those trends to their local stakeholders.
- Implementation progress should be measured by the monitoring data, as opposed to just the modeled data. However, a greater understanding of those factors influencing trends is needed in order to support any conclusions drawn from this monitoring data.

Phase III WIPs: Local Engagement, Local Area Targets, and Development of the Phase III WIP Expectations Document

- Preferences were expressed to have greater targeting of local engagement in the Phase III WIP development process.
- Some jurisdictions feel that waiting to initiate local engagement until key Midpoint Assessment decisions have been made might be worthwhile, since they want to avoid having to change any local messaging with their targeted local audiences as a result of those decisions.
- Many of the jurisdictions are still trying to determine their local engagement strategy and at what scale(s), particularly for the unregulated sectors. Several considerations were expressed as part of the local engagement strategies:
    - Flexibility is key in developing the Phase III WIPs.
    - Develop realistic and practical numeric and programmatic goals and targets.
    - Target local areas that will have the most impact for water quality improvements and put a greater emphasis on water quality trends, as opposed to modeling results.
    - Draw on lessons learned from the Phase I and Phase II WIP processes to adaptively manage Phase III WIP development and implementation.
- Concerns were expressed about developing local area targets as it may undermine local engagement efforts already made to date.
    - Having numbers at the local scale made the focus of the WIP discussions the numbers themselves during the Phase II WIP development process. However, some local elected officials want to know specifically what they need to do and how it benefits their locality.
    - The issue of consequences with local area targets and holding local partners accountable is a real concern.

- State specific expectations are useful if they're based on the water quality monitoring data. These state-specific expectations should not be defined based on the Partnership's modeling tools, since those tools can change (and have changed many times).
- If a jurisdiction's level of effort needs to increase, that increase should be informed by the water quality trends data.
- Concerns were expressed about potential changes and inaccuracies associated with developing and using 2025 forecasted conditions in the Phase III WIPs. The use of 2025 forecasted conditions could raise the level of effort needed to achieve the 2025 targets.

Conowingo and Climate Change

- A group of technical and scientific representatives from USGS, universities, MD, and PA were convened in August to develop a clear storyline from the monitoring data that illustrates the impacts to water quality changes from the loss of the Dam's trapping capacity from the lower Susquehanna to Conowingo Dam to downstream sources. Such information from this group would be available for WQGIT, Management Board and PSC consideration in the fall 2016 timeframe.
- Some jurisdictions have raised the option of Maryland changing their variances if the level of effort to address Conowingo is too much.
- There is a need to understand what role Exelon will have in taking responsibility for increased loads due to Conowingo.
- There is a need for the Partnership to understand the climate change science analyses conducted to date, as this information has not yet been widely presented to the Partnership.
- Concerns were expressed about the implications to levels of effort if climate change impacts are incorporated into the planning targets. The Partnership is interested in learning more about what the discernable changes will be due to climate change between now and 2025, and now and 2050, in order to gain a better understanding of the magnitude of those climate change impacts on levels of effort needed to achieve the 2025 targets.
- The Partnership may want to talk about certain best management practices that could address climate change impacts – for example, adopting living shorelines. Factoring in the effects of climate change in the Phase III WIPs doesn't necessarily mean capturing additional pollutant loads but making sure our BMPs are climate resilient.
- A suggestion was made for a subgroup of the PSC to be established to develop options for Conowingo, climate change, and other Midpoint Assessment priorities. This subgroup or a PSC "champion" would then present the issues to the full PSC membership for discussion and decision.