

Chesapeake Bay TMDL's 2017 Midpoint Assessment Schedule Adjustments

The purpose of this document is to lay out alternative revisions to the Midpoint Assessment schedule, particularly as it relates to the finalization of the Phase 6 modeling tools and the development of the Phase III Watershed Implementation Plans (WIPs). The need for such revisions are due to delays in processing the Phase 6 land use dataset. Further details about these delays, as well as the role of the Chesapeake Bay Program (CBP) partnership in setting the Midpoint Assessment schedule, can be found on page 3 of this document.

The benefits of such schedule adjustments include protecting the integrity of the local review of the Phase 6 land cover/land use data and allowing a partnership review of the final calibrated Phase 6 Watershed Model (which was not built into the original partnership-approved Midpoint Assessment schedule and is something partners have requested).

Key Points of Agreement

- All data inputs (with the exception of Phase 6 land cover/land use data) will be due to the Modeling Workgroup by September 30, 2016.
- Final Phase 6 land cover/land use data will be completed and delivered to the Modeling Workgroup by December 1, 2016.
- A fatal flaw review period for the final Phase 6 Watershed Model should be built into the revised schedule. It is during this time that the partnership should achieve a better understanding of the Model's capabilities and limitations, particularly in the context of uncertainty.
- Partnership decisions are scheduled to be made in fall/winter 2016 on any additional load reductions needed because of Conowingo infill and climate change¹ based on the draft Phase 6 Watershed Model and Water Quality Sediment Transport Model (WQSTM).
- Adequate review time should be provided between the release of the draft and final Phase III WIP planning targets.
- The Modeling Workgroup needs three months to review the modeling data and run the calibration.
 - The Modeling Workgroup will begin the WQSTM calibration with final Phase 6 loads in April 2016, as well as the Chesapeake Bay (CB) hypoxia sensitivity scenarios of nitrogen and phosphorus loads from 16 major CB basins to support allocation decisions.
 - The Modeling Workgroup will begin key allocation scenarios of No Action, Limit of Technology, Progress Scenarios, Phase 2 WIPS, etc.² in May 2016.

¹ By July 2016, the Modeling Workgroup will be able to implement a simulation system for Conowingo, including nutrient processing, high storm events, and changes in deposition as infill occurs. Linkages to the WQSTM will be made and scenarios will be available for early policy decisions in fall 2016. The Modeling team will also be able to generate climate change analyses by fall 2016 to inform early policy decisions within that same timeframe.

² The Modeling Workgroup will begin running sensitivity scenarios in April 2016 and scoping scenarios such as the ones listed above in July 2016.

Revisions to the Midpoint Assessment Schedule

Deliverable	Original Schedule/Deadline	Revised Schedule/Deadline
All Phase 6 data inputs due (except land use)	September 30, 2016	September 30, 2016
Rolling local review of the Phase 6 land use data	Late spring/summer 2016	October-early Nov 2016
Final Phase 6 land use dataset due	September 30, 2016	December 1, 2016
EPA releases draft ³ expectations for Phase III WIPs	January 2017	January 2017
Final calibration of Phase 6 Model	October – December 2016	January – March 2017
Final recommendations on approaches for local area targets	March 2017	March 2017
Partnership fatal-flaw review of final Phase 6 Model	N/A	March-May 2017
EPA releases final expectations for Phase III WIPs	June 2017	April 2017
Release of final Phase 6 Model	January 2017	June 2017
EPA releases draft ⁴ Phase III WIP Planning Targets	Spring 2017	June 2017
EPA releases final Phase III WIP Planning Targets	December 2017	December 2017
Draft Phase III WIPs due to EPA	June 2018	August 2018
EPA feedback on draft Phase III WIPs	Had not been determined	October 2018
Final Phase III WIPs due to EPA	December 2018	December 2018

Key Considerations for Revised Schedule

- Allows for a three-month fatal-flaw CBP partnership review of the Phase 6 Watershed Model.
- Condenses the time between the release of the draft and final Phase III WIP expectations document to three months. State jurisdictions would like for EPA to release the final expectations document as soon as possible, in order to further support engagement with local partners.
 - Although EPA plans to release *preliminary* expectations in summer/fall 2016, it is important to note that the draft expectations document should not be released before partnership decisions have been made on strategic issues such as Conowingo Dam and climate change in early winter 2016.
- Allows for six months between the draft and final Phase III WIP planning targets for partnership review. State jurisdictions have stressed the need for this amount of time to review the draft planning targets.
 - In addition, the draft Phase III WIP planning targets should not be released until after the Phase 6 Watershed Model has been finalized. (State jurisdictions expressed concerns with releasing the draft planning targets prior to the finalization of the Phase 6 Watershed Model, given that the modeling tools may change as a result of the fatal flaw review period.)
- Allows for one year and two months between the release of the draft Phase III WIP planning targets and the submission of the draft Phase III WIPs, and one year between the release of the final Phase III WIP planning targets and the submission of the final Phase III WIPs.

³ The timing between the release of the draft and final Phase III WIP expectations document allows for CBP partnership review and comment of those draft expectations, and to recommend revisions that will inform the final set of expectations.

⁴ The timing between the release of the draft and final Phase III WIP planning targets allows for CBP partnership review and comment of the draft targets, and to recommend revisions that will inform the final planning targets.

- State jurisdictions expressed the need to have as much time as possible between when the planning targets are released and when the draft Phase III WIPs are due, in order to allow for more time to engage their localities on the final Phase 6 Watershed Model, potential development of local area targets, and the level of effort needed to achieve the jurisdictions' Phase III WIP planning targets.
- Reduces the amount time between the submittal of the draft and final Phase III WIPs by two months. State jurisdictions expressed the preference to have more time to develop the draft Phase III WIPs, as opposed to more time to finalize the documents.

Background & Current Status of the Midpoint Assessment & Phase III WIP Schedule

- In October 2012, the WQGIT established the priorities for the Bay TMDL's Midpoint Assessment (MPA) and agreed that the associated deadlines for these priorities would follow the Phase 6 model calibration schedule. The PSC approved the MPA guiding principles, priorities and schedule in December 2012.
 - Currently, the final calibration of the Phase 6 Watershed Model is scheduled from October 2016 – December 2016, with the release of the final model in January 2017.
 - The beta version of the Phase 6 Watershed Model was released for a one-year partnership review in January 2016. This type of review of the modeling tools is unprecedented in Bay Program history.
 - Other beta versions will be released to account for any updated information. These release dates include April 2016, July 2016, and October 2016.
 - Each beta version released to the partnership provides a stronger sense of what the final version of the model will be.
 - All information (e.g. BMP panel recommendations, final land use data inputs) are due to the CBP modeling team by September 2016 for the final calibration run.
- The Phase 6 calibration schedule is especially critical to work underway for Phase 6 land use, the BMP expert panels, and how Conowingo Dam and climate change are to be modeled in the Phase 6 decision support tools.
- The Phase III WIP schedule was developed based on this calibration schedule, to allow time for the Bay watershed jurisdictions to develop their Phase III WIPs that considers the new science, data, and tool refinements as part of the MPA.
 - EPA releases final expectations for Phase III WIPs in June 2017 (6 months after Phase 6 models are final).
 - EPA releases the final Phase III WIP planning targets in December 2017 (one year after Phase 6 models are final).
 - Draft Phase III WIPs are due to EPA in June 2018 (18 months after Phase 6 models are final; 6 months after Phase III WIP planning targets available).
 - Final Phase III WIPs are due to EPA in December 2018 (two years after Phase 6 models are final; one year after Phase III WIP planning targets available).

Delays to Midpoint Assessment Schedule

- Schedule adjustments are needed due to delays in the finalization of the Phase 6 land use dataset:
 - The three contractors (Chesapeake Conservancy, University of Vermont, and Worldview Solutions) responsible for the collection of the high resolution land cover data are behind schedule. They are also experiencing challenges in accuracy with their preliminary data products.
 - New wetlands data and tree canopy data won't be available and submitted to the CBPO Land Use Team until the end of July.

- The CBPO Land Use Team expects to receive all of Virginia's high resolution land cover data in June, as opposed to receiving this data on a rolling basis in the spring 2016 time period.
- Therefore, the team has less than three months to process and finalize the Phase 6 land use data set.
- All of these delays could compress the local review of this data, which is an essential component to building local credibility and confidence in the Phase 6 modeling tools.
- **BOTTOM LINE: More time – specifically, three months – is needed to review, process, and finalize the Phase 6 land use dataset. However, the September 30, 2016 deadline for all other data inputs (e.g. BMP Expert Panel recommendations) remains.**