



## COG WATER RESOURCES PROGRAM UPDATES CHESAPEAKE BAY PROGRAM (CBP) (AS OF 3/918)

Summary of key CBP activities that COG staff are monitoring or actively involved in that have critical impacts or potential implications for COG's members & the RWQM Work Program.

### Bay TMDL – Overall Program & Midpoint Assessment (MPA) Activities

### COG Contact

The Bay Program Partnership continues its Midpoint Assessment (MPA) process, and although several key decisions were finally made at several December meetings of the Water Quality Goal Implementation Team (WQGIT) and Principal Staff Committee (PSC); several other decisions by the Bay Partners are still pending. As a result, **the current phase of the MPA schedule has been delayed by more than four months** – to allow resolution of several technical and policy issues. See below for summary of those decisions and new milestone dates; as well as the next section for more detailed information about the updates to the modeling tools.

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COG staff will continue to brief and solicit input from the WRTC and CBPC members over the coming months to note any technical issues, and seek guidance on policy positions that should be communicated to the Bay Partnership.

### Key Decisions & Deadlines

- **Use of Phase 6 of Watershed Model (WSM) – Agreed** to use of new Phase 6 suite of modeling tools to:
  - o Set Phase III (state-basin level) Planning Targets;
  - o Develop Phase III (local) Watershed Implementation Plans (WIPs); and
  - o Assess progress in the 2-Year Milestones (2YM) (through Year 2025)
- **Use of refinements to Water Quality & Sediment Transport Model (WQSTM) – Agreed** to use of the current WQSTM for confirming that cumulative load reductions will achieve water quality standards.
- **Use of 2025 growth projections in Phase III WIPs – Agreed** that:
  - o Projected 2025 growth would be part of the loads that need to be addressed in development of the Phase III WIPs and accounted for in the 2YMs.
  - o Growth projections would be updated every two years – along with local partner review of those growth projections.
  - o New high-resolution land use/cover data would be incorporated every four years.
- **Issuance of Draft Phase III Planning Targets:**
  - o **Endorsed Draft Planning Targets** but with a clear understanding that there may well be changes made to the Targets as there are several open issues that still need to be resolved.

- o Also, the overall schedule for issuing & reviewing those Draft targets has also been delayed & extended pending resolution of various policy, technical and regulatory decisions.
  - WV & NY – The Bay Partnership agreed to give those states comparable load adjustments in their Planning Targets as they got when the 2010 TMDL was established; as WV & NY view those as *equity* adjustments, given that they are up-stream states.
  - CBP has **finished its evaluation** of the use of additional modeling scenarios to determine how such adjustments can be accommodated (again) – primarily by utilizing **Clean Air Act (CAA)** load reductions – primarily Total Nitrogen (which EPA is responsible for addressing Bay-wide under the terms of the 2010 TMDL). Bay water quality standards must still be met – regardless of such accommodations.
  - **The review period for these Draft Planning Targets will need to be completed by mid-April 2018.**
  - Agreed in the meantime to work on a joint public communication plan for this process.
- **Determination of Bay’s Assimilative Capacity** - Made several decisions:
  - o **Made Interim Decision to set the Bay’s overall Total Nitrogen goal at 195 M lb and Total Phosphorus at 13.7 M lb** – as meeting Bay water quality standards – which is within the range of the Draft Planning Targets.
  - o Agreed to continued support for Maryland pursuing its regulatory *restoration variances* (for some limited portions of the Bay waters) that would be comparable to those ‘temporary’ variances that they adopted when the Bay TMDL was established.
  - o Agreed to further refine the analysis of the Bay’s *assimilative capacity* to determine if achieving overall water quality responses can be accomplished within a range of load reduction levels (i.e. allowing some additional flexibility while still meeting regulatory requirements). This analysis will include the CAA assessment work.
  - o **Final determinations were made at the March 2<sup>nd</sup> PSC meeting.**
- **Allocation of the ‘new’ Conowingo Dam/Susquehanna Watershed Loads**
  - o Agreed that these loads do have water quality impacts and do need to be addressed by the whole Bay Partnership.
  - o **Agreed to a develop a separate Conowingo Planning Target and associated WIP.**
    - This would include the concept of use of pooled resources - overseen by a third-party, and some level of responsibility assigned to Exelon.
    - **A Work Plan to develop this WIP was approved by the PSC.**
    - The Conowingo WIP would ultimately address who should be responsible for those load reductions; how/where those reductions should be accomplished, and the timeframe for addressing the additional reductions (i.e., by or after 2025).
    - **‘Effective Basins’ that may be impacted by this effort do include the Potomac & Patuxent**

- **Incorporation of Climate Change into the Phase III WIPs - Agreed to:**
  - Incorporation Year 2025 climate impacts through the use of a narrative approach as well as jurisdiction-specific loadings.
  - **By 2020** – provide additional analysis/science regarding climate impacts on water quality as well as on BMP performance.
  - Work to update plans and potentially incorporate more explicit load reductions (in light of new information/science) starting with the 2022-2023 2YM efforts, and potentially include those loads as part of an addendum to the Phase III WIPs.

**Pending Decisions (estimated)**

- Decisions regarding allocation of Conowingo Dam/Susquehanna Watershed loads - **March 2018**
- Final Phase III WIP Planning Targets (with special cases) issued – **late May 2018**
- Draft Phase III WIPs issued – **March 2019**
- Final Phase III WIPs issued – **late-June 2019**

Note: This schedule still allows a one (1) year interval from the issuance of the Final Planning Targets to issuance of the Final Phase III WIPs.

<b>Watershed and Water Quality Models– Activities and Issues</b>	<b>COG Contact</b>
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**Phase 6 Watershed Model (WSM) Now Final**  
 The Bay Program’s PSC approved a final version of the Phase 6 WSM for use in the MPA.

Final model output in raw format can be downloaded from the Bay Program’s FTP site at:  
[ftp://ftp.chesapeakebay.net/Modeling/Phase6/Phase\\_6\\_201710/Watershed\\_Model/](ftp://ftp.chesapeakebay.net/Modeling/Phase6/Phase_6_201710/Watershed_Model/)

However, most users will find it easier to download model scenario data from the web site for the CAST tool: <http://cast.chesapeakebay.net/> The tool also can be used to create hypothetical scenarios at different spatial scales.

Note that some of the watershed model scenarios are still being updated as new information is coming in from the states. Thus the 2014-2016 Progress scenarios are not yet final. And scenario results for future years will have to be updated with new predicted land use conditions when the Bay Program completes its Current Zoning forecast for 2025 conditions.

COG staff is currently analyzing final model output and will present selected findings at future meetings of the WRTC. COG and Northern Virginia Regional Commission staff plan to conduct a workshop on Phase 6 WSM results in the early spring of 2018. In the meantime, members who are interested in specific modeling issues or who would like assistance in navigating the tools that exist for depicting model inputs and outputs can contact COG staff for assistance.

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Watershed and Water Quality Models– Activities and Issues	COG Contact
<p><b><u>Use of 2025 Growth Scenarios Approved for WIP Planning</u></b> The Bay Program’s PSC approved the use of forecasted loads in 2025 as the basis for the Phase III Watershed Implementation plans to be produced under the MPA of the Bay TMDL.</p> <p>Bay Program staff is currently finalizing a “Current Zoning” scenario for estimating land use change between now and 2025. Potential land use change could be the main driver of increased nutrient and sediment loads in many urban areas.</p> <p>However, preliminary results have shown that increases in population and jobs in most COG member jurisdictions will occur through infill and redevelopment, which has no direct effect (i.e., no increase) on nutrient and sediment loads. In addition, currently the growth assumptions already incorporate full use of WWTPS’s Design Flow Capacity.</p> <p><b>However, recent activities have raised the issue of how WWTP’s ‘planned growth/design capacity’ should be accounted for in the Phase III WIP development process - in particular where there are apparent ‘implementation gaps’ in other sectors.</b></p> <p>Bay Program staff also is developing tools for altering its forecast of how new growth is distributed across the watershed; these “conservation plus” tools will allow jurisdictions to factor the effect of various land conservation measures into their Phase III WIPs. Also, COG and NVRC staff expect to work with members and their respective Bay partner jurisdictions to make sure that the latest stormwater requirements for new development and redevelopment are taken into account in the Bay Program’s modeling; and that protection of existing WWTP capacity is preserved in the Phase III WIPs – while preserving the flexibility for any jurisdiction to utilize that capacity to meet their overall reduction goals.</p>	<p>Karl Berger (202) 962-3350 <a href="mailto:kberger@mwkog.org">kberger@mwkog.org</a></p> <p>Wastewater Capacity matters: Tanya Spano (202) 962-3776 <a href="mailto:tspano@mwkog.org">tspano@mwkog.org</a></p>

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