



COG WATER RESOURCES PROGRAM UPDATES

(AS OF 11/13/15)

Chesapeake Bay Program:

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

Watershed Model – Activities and Issues	COG Contact
<p><u>Land Use</u> The Bay Program is incorporating both local land use information and data from high resolution imagery into updated land use for the Phase 6 watershed model currently under development. Local governments will have the opportunity to review and comment on the updated land use; and COG staff will continue to work with COG local governments to ensure the accuracy of that data.</p> <p><u>Model Inputs</u> COG and NVRC staff are continuing to monitor the data that the states supply to the Bay Program on wastewater discharges, nutrient pollution from septic systems, biosolids and fertilizer application, and stormwater BMP implementation. This data, which the Bay Program estimates back in time (1985) as well as in the present, is the key component of measuring progress toward meeting the TMDL goals. COG staff will continue to work with COG's members to ensure that this data is accurate and assumptions are scientifically sound.</p> <p><u>Load Estimates / Target Loads</u> The Bay Program is using a new approach for setting the basic rates of nutrient and sediment loading from the major sources of these constituents to the Bay – which are agriculture, urban land and forests – and for determining the geographic variation in these loads. COG staff will be evaluating options conducting an independent scientific evaluation of these key model components.</p> <p><u>Reservoirs</u> The Bay Program is simulating the water quality impacts of thousands of small impoundments not currently simulated in the model. This has the potential to provide local governments with new credits for nutrient and sediment reduction, but accounting issues still have to be worked out. COG staff will be working with our local drinking water utilities to ensure the accuracy of those assumptions.</p> <p><u>Lag Time</u> The Bay Program will now explicitly incorporate estimates of the lag time between when nutrients run off the surface of the land or leach into groundwater and when they emerge into surface waters, which is expected to improve the agreement between modeled and monitored estimates of nutrient load and provide scientific support for the Bay TMDL's expectation that improvements in water quality will lag behind the expected impact of installing BMPs. COG staff will be evaluating options conducting an independent scientific evaluation of model assumptions.</p> <p><u>Scale/Applicability</u> Despite the many improvements the Bay Program is making to the watershed model, its accuracy will continue to vary at different scales - which has major policy implications especially for COG's MS4 stormwater permits. COG staff will be evaluating options for conducting an independent scientific evaluation of the accuracy of the model's loading estimates at different geographic scales.</p>	<p>Karl Berger (202) 962-3350 kberger@mwkog.org</p> <p>NOTE: COG staff presented these technical points to the WRTC on Oct. 29th. With WRTC support, COG staff is now evaluating how to obtain specialized consultant support to supplement staff's ongoing technical work on these issues. Some of this work would involve technical work similar to work COG lead during the development of the Bay TMDL. However, because of the expansion of the issues and modeling tools being used, there are many more issues that will need to be considered during the Bay TMDL 2017 Mid-Point Assessment process.</p> <p>Key policy issues related to these CBP activities will be presented at an upcoming 2016 CBPC meeting.</p>

Water Quality Sediment Transport Model & Others - Activities & Issues	COG Contact
<p><u>Conowingo Dam</u> The Bay Program and other parties are updating the scientific understanding of the changing dynamics of nutrient and sediment flows through the three reservoirs on the lower Susquehanna River and the impact of those changes on the attainment of the TMDL's water quality goals. The update is likely to result in a major policy decision, i.e., to determine from whom to seek the additional nutrient and sediment reductions; which could have clear policy implications for COG's members depending on what decisions are being considered. COG staff will continue to monitor this situation and weigh-in on technical and policy issues on behalf of the region.</p> <p><u>Attainment Assessment</u> The Bay Program uses a complex combination of monitoring and modeling information to determine what constitutes attainment of water quality goals under the TMDL. COG staff is continuing to track changes in the attainment methodology to ensure that it maintains equity among all the parties involved in the restoration effort. COG staff will be evaluating options for conducting an independent scientific evaluation of the use of the model – and where decisions are policy driven not technical in nature and involve issues of equity.</p> <p><u>Air Model</u> Deposition of various forms of nitrogen emitted by vehicles, power plants and other sources is one of the major sources of nitrogen to the Bay and contributes to major sector loads from agriculture, urban sources and forests. The Bay Program is updating its models for estimating these inputs, which COG water program staff will continue to track in conjunction with COG's air program staff.</p> <p><u>Climate Change</u> The Bay Program has begun to incorporate estimates of future changes in temperature, rainfall and other factors likely to result from climate change into its modeling framework. COG staff will continue to track the implications of these changes on the extent to which water quality goals can be achieved under the TMDL framework. COG staff will also be evaluating options for conducting an independent scientific evaluation of the basis for the model's climate-based assumptions and the implications for the COG region. COG staff also participates in the Climate Workgroups. The workgroups are tasked with identifying how climate changes may influence the ability of various management strategies to restore the Chesapeake Bay. COG is participating in the development of the biennial work plan which will be available for public comment in the fall of 2015.</p>	<p>Karl Berger (202) 962-3350 kberger@mwkog.org</p> <p>Tanya Spano (202) 962-3776 tspano@mwkog.org</p> <p>See related Note: in section above for proposed technical work.</p> <p>Karl Berger (202) 962-3350 kberger@mwkog.org</p> <p>Tanya Spano (202) 962-3776 tspano@mwkog.org</p>
Other – Activities & Issues	COG Contact
<p><u>FARM BUREAU BAY TMDL APPEAL TO SUPREME COURT</u> The American Farm Bureau Federation and other industry groups have requested the Supreme Court to revisit the legality of the Chesapeake Bay cleanup plan which they says threatens authority of states across the nation. The Farm Bureau group is arguing that the EPA overstepped its authority when it established the Chesapeake Bay Total Maximum Daily Load in December 2010, as they previously stated before the Middle District Court of Pennsylvania and the 3rd U.S. Circuit Court of Appeals</p>	<p>Heidi Bonnaffon (202) 962-3216 hbonnaffon@mwkog.org</p> <p>To read the full Bay Journal Article, click here.</p>