

TMDL Data Center Webinar: Response to Comments and Questions

The Maryland Department of the Environment (MDE) presented on the features, resources, and information contained on the Department's new Total Maximum Daily Load (TMDL) Data Center website during a webinar on June 11, 2014. The webinar was hosted by the US Environmental Protection Agency (EPA) Chesapeake Bay Program (CBP). MDE presented on its new TMDL Data Center during the first part of the webinar, and during the second half of the webinar, Olivia Devereux of Devereux Environmental Consulting presented on how to use the Maryland Assessment Scenario Tool (MAST) for the development of local TMDL Stormwater Wasteload Allocation (SW-WLA) implementation plans, as well as some new functionalities that have been added to MAST recently. The questions and comments below all appeared in the "chat" function of the online webinar. Many of these questions and comments were also asked and addressed by MDE over the phone during the webinar. These questions, comments, and responses are included here as well, so as to provide an official record.

The commentors, their affiliations, and the numbered references to their questions/comments are identified below.

List of Commentors

Author	Affiliation	Comment Number
Steve Stewart	Baltimore County	1, 4
Karl Berger	Metropolitan Washington Council of Governments	2, 8, 11
Jen Dindinger	University of Maryland	3, 6, 9
Robert Hirsch	Baltimore County	5
Pam Parker	Montgomery County	7
Bill Frost	KCI Technologies	10

Comments and Responses

1. In reference to the TMDL search function on the TMDL Data Center and its results, the commentor asks the following: "How up to date is the TMDL list? If I look at Jones Falls, I see chlordane listed, but it was moved to category 2 in the 2012 Integrated Report."

Response: MDE will make its best effort to keep the information on the TMDL Data Center up-to-date. New TMDLs and SW-WLAs will be input into the searchable database once they are approved by EPA. The search results page indicates when the database was last updated (as shown in the image below):

Location	Substance	Waterbody Type	Report Name	TMDL Map	GIS ID	Approval Date
8 Digit WS 02130901 / Back River	Chlordane	Estuaries	Back River Chlordane	Map	G1071	Dec. 17, 1999
8 Digit WS 02130901 / Back River	Nitrogen	Estuaries	Back River Nutrients	Map	G1071	June 29, 2005
8 Digit WS 02130901 / Back River	Phosphorus	Estuaries	Back River Nutrients	Map	G1071	June 29, 2005
Back River (Herring Run)	E.coli	Non-Tidal Rivers	Herring Run Bacteria	Map	G2355	Dec. 4, 2007
Segmentshed BACOH / Back River Oligohaline	Nitrogen	The Chesapeake Bay	The Chesapeake Bay TMDL	Map	G1003	Dec. 29, 2010
Segmentshed BACOH / Back River Oligohaline	PCBs	Estuaries	Back River PCBs	Map	G1003	Oct. 1, 2012
Segmentshed BACOH / Back River Oligohaline	Phosphorus	The Chesapeake Bay	The Chesapeake Bay TMDL	Map	G1003	Dec. 29, 2010
Segmentshed BACOH / Back River Oligohaline	TSS	The Chesapeake Bay	The Chesapeake Bay TMDL	Map	G1003	Dec. 29, 2010
Segmentshed CB2OH / Northern Chesapeake Bay Oligohaline	Nitrogen	The Chesapeake Bay	The Chesapeake Bay TMDL	Map	G1010	Dec. 29, 2010
Segmentshed CB2OH / Northern Chesapeake Bay Oligohaline	Phosphorus	The Chesapeake Bay	The Chesapeake Bay TMDL	Map	G1010	Dec. 29, 2010
Segmentshed CB2OH / Northern Chesapeake Bay Oligohaline	TSS	The Chesapeake Bay	The Chesapeake Bay TMDL	Map	G1010	Dec. 29, 2010

Date Printed: 6/16/2014 Last Updated: 6/10/2014

The commentor is correct. The chlordane impairment in the Lake Roland impoundment of the Jones Falls watershed is currently identified on Category 2 of Maryland’s Integrated Report. However, the TMDL is still valid. Since no SW-WLA is specified, Baltimore County does not need to develop an implementation plan for the TMDL. However, for TMDLs that a) specify SW-WLAs, and b) have been developed for waterbody and pollutant combinations that have been moved to Category 2 of the Integrated Report (i.e., meeting water quality standards) following the development of the TMDL, MDE (see general guidance document) is recommending that local jurisdictions develop plans that focus on watershed protection, rather than restoration, to ensure that water quality standards for a specific pollutant in a waterbody will continue to be achieved.

2. Once again, in reference to the “currentness” of the information on the TMDL Data Center, the commentor asks the following: “To follow up on Steve’s question, how frequently will this aspect of the site be updated, i.e. how soon will any new TMDLs show up in the various web tools?”

Response: See the response to #1.

3. In reference to the land-cover data MDE is recommending the local jurisdictions use to break out aggregate SW-WLAs, the commentor asks: “Is 2006 the latest data set on land cover from [the] United States Geological Survey (USGS)?”

Response: There is a 2011 National Land-Cover Dataset (NLCD) available from the USGS. However, the version of the NLCD that MDE is recommending the local jurisdictions use and have made available for download on the TMDL Data Center has been modified by CBP to better delineate the total developed footprint, for the purposes of developing the Phase 5.3.2 watershed model. This version of the data is referred to as the Modified Chesapeake Bay Land-Cover Dataset (CBLCD). 2006 is the latest year for which the Modified CBLCD has been produced. This was the primary dataset used to inform the Phase 5.3.2 watershed model. CBP is currently working on modifying the 2011 NLCD. Once finalized, MDE will post the 2011 data to the TMDL Data Center.

4. In reference to MDE's proposed methodology for breaking out aggregate SW-WLA, described on the "Stormwater Toolkit" portion of the TMDL Data Center, the commentor asks: "The TMDLs typically have a tech memo that partitions the WLA to the various municipal separate storm sewer systems (MS4s) and Point Sources. Do we use that or do we recalculate?"

Response: If a TMDL or associated technical memorandum specifies an individual SW-WLA, there is no need to apply the disaggregation methodology outlined on the "Stormwater Toolkit" section of the TMDL Data Center. The methodology only applies for TMDLs with aggregate SW-WLAs and no sub-allocations.

5. In reference to the SW-WLA disaggregation methodology, the commentor says: "The Stormwater Toolkit does not indicate which 2006 USGS-CBP Land-Cover categories are the 'Urban Area'."

Response: The land-cover data is available for download on the TMDL Data Center's TMDL Maps page. The zip file that the user can download not only contains the data file, but it also contains a layer file to symbolize the data, and an excel file, which serves as a lookup table for the land-cover codes. Local jurisdictions should use this lookup table or layer file to delineate the developed footprint. The "urban" land-cover codes are outlined in the table below.

Value	Classification
21	Developed Open Space
22	Low Intensity Developed
23	Medium Intensity Developed
24	High Intensity Developed
200	Residential
210	Residential - Developed Open Space
220	Residential - Low Intensity Developed
230	Residential - Medium Intensity Developed
240	Residential - High Intensity Developed
2100	Rural Developed - Developed Open Space
2200	Rural Developed - Low Intensity Developed
2300	Rural Developed - Medium Intensity Developed
2400	Rural Developed - High Intensity Developed

6. In reference to the part of the webinar when MDE described the monitoring component for evaluating the success of an implementation plan, the commentor asks: “Why will the counties need to do monitoring if there are already approved efficiency estimates for the Best Management Practices (BMPs) to be implemented?”

Response: BMP efficiencies do not ensure the attainment of water quality standards. TMDLs are developed to meet water quality standards. The specification of SW-WLAs within TMDLs represents a reasonable assignment of load allocations among source sectors in order to achieve load reductions necessary to meet water quality standards. Therefore, it is water quality data that ultimately determines whether or not water quality standards, TMDLs, and SW-WLAs are being achieved. And while there are CBP approved BMP efficiencies, these efficiencies are only average estimates. Actual data is needed to verify that BMPs are functioning as intended. MDE is going to continue to develop and improve on its guidance to local jurisdictions on how to develop implementation plans for meeting SW-WLAs. Expanding upon how this monitoring should be conducted, for the purposes of evaluating the success of a plan, is one of the key areas MDE intends to provide further information about.

7. In reference to the SW-WLA disaggregation methodology, the commentor says: “The MS4 Phase I permits have a regulatory requirement to meet WLAs. [It] would seem that these regulatory loads should come from MDE rather than be calculated by those being regulated.

Response: MDE has provided the local jurisdictions with the methods and data for calculating the individual portions of aggregate SW-WLAs. As the regulatory agency, MDE is specifying that the local jurisdictions will be calculating their individual portions of aggregate target loads. Furthermore, to do so, as an accurate and consistent approach, MDE is recommending that the local jurisdictions use the outlined methodology. The loads that will be calculated by the local jurisdictions will be the same as the loads MDE would provide to the locals, since the same data and methods are being used. Therefore, it should not matter whether the local jurisdiction or MDE calculates the loads.

8. In reference to the different watershed models being used by MDE and the local jurisdictions, the commentor asks: “How do you address different delivery ratios from different models or from delivery to local streams vs. delivery to Bay?”

Response: At this time, MDE recognizes that there will be small discrepancies between models used for TMDL development by MDE and for implementation by the local jurisdictions. To account for the differences in watershed modeling between the state and local efforts, MDE is recommending that local jurisdictions use reduction percentages instead of absolute loads (i.e., actual SW-WLA values) when developing their implementation plans. MDE guidance will, however, continue to evolve, and over time recommendations on rectifying specific parameters between models, i.e., delivery factors, could be provided.

9. In reference to the part of the webinar when MDE described the monitoring component for evaluating the success of an implementation plan, the commentor asks: “The goal of the TMDL was to have all practices in place by 2025, not improved water quality by 2025. It seems hard for a local government to track water quality improvement with no monitoring program or funding.”

Response: This is correct in regards to the Chesapeake Bay TMDLs. All practices for implementing the Chesapeake Bay TMDLs are supposed to be in place by 2025. There is a known, and expected, lag time between implementing practices on the ground and water quality improvement. MDE does not expect or anticipate water quality improvements immediately following BMP implementation, whether for local TMDL implementation or Chesapeake Bay TMDL implementation. However, to assess the true success of an SW-WLA implementation plan, monitoring data should be used. After a reasonable amount of time has passed, monitoring data should indicate that either a) BMPs are performing at or better than their expected standard, or 2) there is an observed improvement in stream, reservoir, etc., water quality.

10. In reference to the SW-WLA disaggregation methodology, the commentor says: “If we have better land use and jurisdictional boundary data than the 2006 land use, can we use it? That goes for land use, too, right? [Can] we use more accurate/newer [data] (2011 for me)?”

Response: Yes, the jurisdictions are encouraged to use the most accurate available land-use data, land-cover data and jurisdictional boundaries in calculating individual SW-WLAs and in their watershed modeling efforts for the development of SW-WLA implementation plans.

11. The commentor says: “Just a quibble -- urban nutrient management is currently controlled at state (Maryland Department of Agriculture level); individual MS4s cannot affect this.”

Response: MDE understands that MS4 jurisdictions have no control over urban nutrient management reporting, as it relates to the Chesapeake Bay watershed model. For local TMDLs, if a jurisdiction is not using MAST to develop its implementation plan, since most SW-WLAs account for urban pervious loads, local jurisdictions should account for the urban

nutrient management reductions from MDA regulations, i.e., phosphorus ban and slow release nitrogen in commercial fertilizers. Also, local jurisdictions are not restricted from implementing additional practices and efforts to increase urban nutrient management levels, i.e., outreach to individual home owners, ordinances on fertilizer application, etc., and the application of additional practices to treat loads from urban pervious lands..