

**Comment Response Document
Regarding the Total Maximum Daily Load of Sediment in the Non-Tidal Back River
Watershed, Baltimore City and Baltimore County, Maryland**

The Maryland Department of the Environment (MDE) has conducted two public comment periods of the proposed Sediment TMDL for the Non-Tidal Back River Watershed. The first public comment period was from June 15, 2017 to July 14, 2017. One set of comments were received and are presented below. Revisions were made to the documentation and a second public notice was held. The second public comment period was open from October 16, 2017 through November 14, 2017. MDE received one set of written comments.

Below is a list of the commentors, their affiliations, the date comments were submitted, and the number referenced to the comments. In the pages that follow, comments are summarized along with MDE’s responses.

List of Commentors

Author	Affiliation	Date	Comment Number
Mr. Wesley Schmidt	Baltimore County Department of Environmental Protection and Sustainability (EPS)	July 11, 2017	1-7
Ms. Jillian Adair	U.S. Environmental Protection Agency Region 3	Nov. 13, 2017	8-18

Comments and Responses

1. The commentor references Figure 2 stating a stream (Redhouse) is incorrectly identified as Herring Run. Herring Run is the stream that Chinquapin Run joins within the City of Baltimore.

Response: Figure 2 has been corrected.

2. The commentor references Figure 3: Land-use of the Back River Watershed stating there is symbology used for a land use type that is labeled as “water”. The commentor continues with on this map there is shown to be a great deal of water throughout the Back River watershed, and notably a very large patch of such surrounding the vicinity of the Essex Skypark in the South Eastern portion of the watershed. Available landuse/landcover datasets suggest that much of the shown land-based water in this figure is actually forested land. If this is an error, is it possible that there were some miscalculations resulting from landuse/landcover discrepancies?

Response: Figure 3 is generated using a GIS layer that includes 27 different landuse/landcover classifications that have been grouped into four general categories – water,

FINAL

agriculture, forest, and urban. It is intended to present a general overview of the land use in the Back River Watershed. The area in the southeastern portion of the watershed marked “water” is actually classified as woody wetlands. Water and wetlands are grouped together in the map, and Figure 3 has been updated to reflect this. The sediment load values in the TMDL are calculated with actual CBP 5.3.2 model output and therefore are not impacted by the values in the map.

3. The commentor references page 17, last paragraph/Table 6 stating it appears that only Maryland Biological Stream Survey (MBSS) data was used in the characterization of the watershed. The commentor asks was the use of Baltimore County’s monitoring data considered for the development of this characterization?

Response: Baltimore County monitoring data was not used in the TMDL analysis. As stated in the TMDL, Back River was originally listed for biological impairments in 2002 and a BSID was completed in 2012. MDE did use Baltimore County’s biological monitoring data in the 2014 *Integrated Report of Surface Water Quality in Maryland* (Integrated Report) for the purposes of reassessing watershed scale biological impairments. This was an extensive effort, which required MDE and the County to work together to integrate the county data. Since the data vetting process for incorporating county data into MDE’s biological listing methodology was very resource intensive, this process has not been repeated since for subsequent Integrated Report cycles and/or biological stressor identification analysis. MDE is currently working with MS4 counties to ensure that future data collected is consistent not only with MBSS field protocols but also protocols for metric calculations. Once this data is consistent, MDE will look to use it for TMDL development purposes.

4. The commentor references page 22, last paragraph stating this section re-states that this TMDL is specific to the non-tidal streams of Back River. How does the pollutant loading analysis account for areas of the watershed in which Municipal Separate Storm Sewer System (MS4) connections are made directly to tidal waters? Were the land areas/drainages where MS4 connections are made directly to tidal waters taken out of the pollutant loading calculations? It would be informative to include a figure and/or table to visualize the actual areas and/or land acreages that are being “cut out” of the calculations due to their drainage.

Response: The TMDL analysis was completed with the best data currently available. At this time, this does not include a dataset that accounts for areas of the watershed in which Municipal Separate Storm Sewer System (MS4) connections are made directly to tidal waters. Therefore, direct MS4 to tidal drainage areas were not taken out of the sediment loading calculations. If this data becomes available to Baltimore County or MDE in the future, MDE will review the information and evaluate its impact on the TMDL.

5. Referencing page 31, third paragraph from the bottom, the commentor states this paragraph references the Stormwater Wasteload Allocation (WLA) being calculated based on reductions to sediment loading from urban lands associated with the National Pollutant Discharge Elimination System (NPDES) stormwater permits. Does this method allow for separate accounting of non-tidal MS4 connections and direct tidal MS4 connections?

FINAL

Response: As stated in the response Comment #4, MDE does not have data available to separate MS4 areas that discharge directly to tidal water. If this data becomes available to Baltimore County or MDE in the future, MDE will review the information and evaluate its impact on the TMDL.

6. The commentor states Baltimore County acknowledges and appreciates the inclusion of references to additional biological stressors discussed in the biological stressor identification (BSID) report pointing out other inhibitors to biological communities such as sulfate, chloride, and conductivity, which do not have associated total maximum daily loads (TMDLs) at this time, but may inhibit the achievement of biological community goals.

Response: Thank you. MDE recognizes that, in this watershed, there could be multiple sources impacting the biological communities and presents as much information as possible related to biological stressors.

7. The commentor states Baltimore County appreciates the work of MDE on this TMDL, and looks forward to continued implementation of water quality Best Management Practices (BMPs) in the Back River watershed with this document as guidance. Thank you.

Response: MDE is pleased to learn that the county has already begun work implementing water quality BMPs in the Back River watershed. If the county needs any guidance from MDE's Water and Science Administration (WSA) in the development of these plans, please do not hesitate to contact this administration.

8. The commentor states the U.S. Environmental Protection Agency (EPA) suggests that MDE provide additional discussion on how the proposed TMDL targets are protective of trout waters, possibly noting that several of the reference watersheds also support high quality trout waters. MDE may also consider identifying which reference watersheds are designated as trout waters as well as which tributaries and mainstem sections of Back River are designated as trout waters.

Response: Narrative sediment criteria for recreational trout waters (Use Class IV) are the same as that for Use Class I waters. The TMDL was based on a reference watershed approach and nine of the eleven reference watersheds contain recreational trout waters or nontidal cold water streams (Use Class IV). Therefore, it can be inferred that setting sediment values based on these reference watersheds would be supportive of trout waters. Additional language has been added to the TMDL to clarify this issue.

9. The commentor states there's a possible typo on Page vii, and Page 21, 2nd paragraph, line 7, sentence beginning, "It is understood..." should "than" be "that"?

Response: This language has been corrected.

FINAL

10. The commentor asks if all reference to “Maryland’s biocriteria” instead read “Maryland’s biological assessment methodology” with a reference to the associated 2014 assessment methodology. Please clarify.

Response: Yes, all reference to “Maryland’s biocriteria” should read “Maryland’s biological assessment methodology”. This language has been corrected and a reference has been added.

11. The commentor references page 22, 5th paragraph: This paragraph states that the mainstem of Back River is not considered impaired for sediment, so direct loads to the mainstem will not be considered as part of this TMDL. Isn’t the mainstem of Back River considered tidal and already assigned TMDLs for sediment through the 2010 Chesapeake Bay TMDLs (therefore negating the need to consider those loads regardless of the mainstem’s impairment status)? Please clarify.

Response: The language was referring to the non-tidal mainstem of the Back River. The Chesapeake Bay TMDLs are set for the tidal tributaries. This language has been used in previous sediment TMDLs with non-tidal mainstems. MDE agrees that evaluation of the CORE/Trend data is not necessary in watersheds with tidal mainstems, since the tidal waters are covered by the Bay TMDL and therefore automatically excluded from the non-tidal TMDL. This language been removed for clarity.

12. The commentor references page 27, 2nd paragraph: “The point source sediment loads are estimated based on existing permit information.” EPA suggests adding that the NPDES regulated stormwater loads are also based on land-use and edge-of-stream (EOS) sediment loading rates.

Response: Additional language has been added to clarify this issue.

13. The commentor references Section 4.4 Critical Condition and Seasonality, suggesting adding information related to the continuous simulation model to further justify that both critical conditions and seasonality were accounted for in the TMDL.

Response: Additional language related to the continuous simulation model has been added to Section 4.4.

14. The commentor asks if the urban stormwater WLAs were calculated using the same technique used for the load allocations (LAs) (i.e. the E3 Scenario)? If so, MDE may consider adding language to confirm.

Response: Additional language has been added to clarify this issue.

FINAL

15. The commentor references page 35, “Additional Biological Stressors” stating MDE may also consider adding that the non-tidal waters of the Back River watershed are also listed as impaired by sulfates and channelization on the Integrated Report.

Response: Additional language regarding the sulfate and channelization impairments listings has been added to clarify this issue.

16. The commentor references Table 3 in the point source technical memorandum stating the “WLA (ton/year)” column adds to 1,275 as opposed to 1,274. Additionally, “Total MDL (ton/day)” adds to 5.5 as opposed to 5.8. Please correct.

Response: These values have been corrected.

17. The commentor references page 1, 2nd paragraph of the point source technical memorandum stating “WLAs have been calculated for NPDES regulated individual municipal permits, individual and general MS4 permits, and the general permit for stormwater discharges from construction sites...”, but WLAs were also calculated for industrial facilities permitted for stormwater discharges. Please clarify.

Response: Additional language has been added to clarify this issue.

18. The commentor references page 2, 1st paragraph of the point source technical memorandum stating the memo states “Aggregate WLAs have been calculated for the general NPDES stormwater permits.” Included in the aggregate WLA are some facilities that are covered by individual permits, not general, correct? If so, please clarify.

Response: All facilities included in the aggregate WLA for “Other NPDES regulated stormwater” are general permits. Six of the facilities are general industrial stormwater permits, indicated by the prefix "MDR" in their permit number. The final is the general construction permit. Additionally, in the public comment draft TMDL, some of the NPDES permit numbers in Table 2 were cited incorrectly. They have been corrected.