

Draft Statewide *E. coli* Total Maximum Daily Load (TMDL)
Michigan Department of Environmental Quality (MDEQ)
Response to Comments
Received During the Pre-Public Notice Outreach Period
(February 2 to March 17, 2017)

- 1) **COMMENT (Attachment 1):** Cowles Environmental recommended changing the numeric Waste Load Allocation (WLA) to a narrative one requiring the implementation of best management practices (BMP).

MDEQ RESPONSE (Attachment 2): TMDLs are defined as the amount of a pollutant that is allowable, and still meet the applicable water quality standards (WQS), in a water body. According to Title 40 of the Code of Federal Regulations (CFR), Section 130.7, TMDLs shall be established at levels necessary to attain and maintain the applicable narrative and numerical WQS. Section 130.2(i) states that a TMDL is “the sum of the individual WLAs for point sources and Load Allocations (LA) for nonpoint sources.” Further, Section 130.2(e) states that a load is “an amount of matter or thermal energy that is introduced into a receiving water.” Michigan has a numeric ambient WQS as a target for *E. coli*, which gives a clear numeric goal (as in Rule 62 [R 323.1062] of the Part 4 WQS, promulgated under Part 31, Water Resources Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended); therefore, TMDLs must also be numeric and allocations must be stringent enough to meet the target. The United States Environmental Protection Agency (USEPA) has determined that an *E. coli* concentration adequately meets the definition of a pollutant load as supplied in 40 CFR, Section 130.2(e). Additional support for using a numeric WLA comes from the 2002 USEPA guidance document (*Establishing TMDL WLAs for Storm Water Sources and National Pollutant Discharge Elimination System (NPDES) Permit Requirements Based on Those WLAs*), which states, “The WLAs and LAs are to be expressed in numeric form in the TMDL.”

BMPs are structural and nonstructural controls, as well as operation and maintenance procedures, designed to reduce pollution. Using a BMP in a WLA would not be approvable by the USEPA because a sum cannot be calculated, and neither can the amount or load of the pollutant. The WLA in the draft Statewide *E. coli* TMDL is a concentration equal to the applicable WQS. This is an appropriately conservative approach that applies only to water bodies and watersheds subject to the TMDL, because in these waters the WQS has been exceeded enough to warrant listing the waters as impaired by *E. coli*. The 2002 USEPA guidance recommends that for NPDES-regulated municipal and small construction storm water discharges, effluent limits be expressed as BMPs or similar requirements.

In conclusion, the MDEQ cannot use BMPs as a WLA due to the USEPA’s interpretation of the TMDL regulations and guidance; however, narrative BMPs can and are being used in storm water permits. Permits must be consistent with the goals of the TMDL, but do not need to have a numeric effluent limitation identical to the WLA in the TMDL. This allows flexibility in implementing the TMDL for both the MDEQ and the permittees.

No changes were made to the document based on this comment.

- 2) **COMMENT (Attachment 1)**: Cowles Environmental suggested that the statewide *E. coli* TMDL supersede all previously approved *E. coli* TMDLs.

MDEQ RESPONSE (Attachment 2): The MDEQ has added language to the public-notice version of the TMDL indicating that the MDEQ is open to the idea of revoking and reissuing the older TMDLs on a case-by-case basis, with adequate justification (see Section 1.2.B in the revised TMDL document). At this time the MDEQ does not have adequate justification to pursue this for all TMDLs, as it involves a case-by-case review by the MDEQ and USEPA, including seeking public input. Additionally, the older TMDL documents contain valuable information on sources at the time they were written. However, after reviewing all previously approved *E. coli* TMDLs, the MDEQ is proposing to revoke the 2007 Rouge River *E. coli* TMDL and replace it simultaneously with coverage by the Statewide *E. coli* TMDL. The relevant language is in Section 1.2.B (pages 2-3) in the revised draft Statewide *E. coli* TMDL. In Appendix 1, a code (“Reissue”) was added to column 11 to indicate the Assessment Unit Identifiers (AUID) from the Rouge River that are affected by this change. The Rouge River *E. coli* TMDL (2007) is out-of-date and the load-based WLAs no longer reflect the reality of discharges to the impaired waters. The Combined Sewer Overflow (CSO) long-term control plans in the Rouge River watershed have changed to the point that the WLAs in the original TMDL are no longer accurate. Redeveloping the load-based allocations would be time-consuming and yield no environmental benefit since the target of any *E. coli* TMDL is to meet the WQS. The ultimate target of the Rouge River TMDL (meeting the WQS) is the same as the target of the Statewide *E. coli* TMDL; therefore, permit requirements and environmental outcomes from the Rouge River TMDL will not be effected by this change.

- 3) **COMMENT (Attachment 3)**: The Little River Band of Ottawa Indians submitted a letter dated March 8, 2017, supporting the MDEQ’s decision to pursue a statewide *E. coli* TMDL, versus the former approach of addressing each impairment individually.

MDEQ RESPONSE: The MDEQ appreciates the support from the Tribe and agrees that clean water is a vital resource for the Tribe, as well as for all of Michigan’s residents and visitors. The MDEQ will continue working towards our shared goal of improving surface waters. No changes were made to the document based on this comment.

- 4) **COMMENT (Attachment 4)**: The Port Huron Wastewater Treatment Plant (Patty Troy) commented that the stream reach impaired by uncontrolled CSOs in the St. Clair River was incorrect.

MDEQ RESPONSE (Attachment 4): The Port Huron Wastewater Treatment Plant is correct; waters affected by uncontrolled CSOs should not stretch the entirety of the St. Clair River. AUID 040900010001-08 is the only stretch of the river that should be listed as impaired by the remaining uncontrolled CSOs. The MDEQ’s 2016 Section 305(b) list shows this as a 6.5 mile stretch of the river that is currently expected to be “fully attaining” in 2029. Once the remaining CSO is controlled, the MDEQ will propose to change the category to fully attaining for the total and partial body contact designated uses based on past data collected by the MDEQ. The map in the revised

draft TMDL document (Figure 19, page 42) has been modified to shorten the affected reach to 6.5 miles as listed in the Section 305(b) list, and the shapefile for the interactive mapping system has been modified to reflect this change.

- 5) **COMMENT (Attachment 5):** The Southeast Michigan Council of Governments (SEMCOG) requested further clarification in the TMDL describing how water bodies will be added to the Statewide *E. coli* TMDL when new data indicate an impairment.

MDEQ RESPONSE (Attachment 6): The process and data requirements for adding and removing water bodies from the Section 303(d) list or changing use attainment categories is outlined in the assessment methodology section of the Clean Water Act Sections 303(d), 305(b), and 314 Integrated Report, not in a TMDL. The MDEQ would like to clarify that each Integrated Report has its own assessment methodology, and the methodology can change slightly each time the Sections 303(d) and 305(b) lists are updated.

The following text was added in Section 1.2.A of the revised draft TMDL to address this comment: “Minimum water quality monitoring data requirements for determining if a water body is impaired by a pollutant are described in the assessment methodology section of the MDEQ’s Integrated Report. This assessment methodology is updated with each biennial submittal of the Integrated Report.”

- 6) **COMMENT (Attachment 5):** The SEMCOG points out, and requests clarification for, water bodies listed in the current 2016 Integrated Report that do not appear to have sufficient data in Appendix 1 to be included in Category 5 of the Section 303(d) list. One example is Upper Portage Creek (Appendix 1 of the draft TMDL).

MDEQ RESPONSE (Attachment 6): The MDEQ wants to clarify the intent of Appendix 1. As noted in the explanatory text for Appendix 1 of the draft TMDL, the appendix includes a list of AUIDs contained in the TMDL, but the data summaries are for informational purposes only. The intent of this appendix is to give stakeholders a summary of the data in each water body, or group of water bodies, to allow them to determine the magnitude of the exceedances and compare with other water bodies throughout the state. In many cases, the data in Appendix 1 are not identical to the data that were used to make the original assessment decision for the AUIDs in the Integrated Report version cited in column 12 (cycle first listed) of Appendix 1. For example, current assessment methodology involves the use of the previous two years of data, while Appendix 1 contains all years that are available to us, including data collected in 2016. To date, the 2016 data have not been used in making assessment decisions; but they will be used in developing the 2018 Integrated Report. To help clarify, the following statement was added to Appendix 1: “**The data summarized for each AUID includes all sample results that are readily available for that AUID, and may not contain the exact dataset that was used in making the initial impairment decision (pursuant to the assessment methodology at the time the decision was made).**”

With regards to Upper Portage Creek, this was a data omission on the part of the MDEQ. In response to your comment, Appendix 1 will be updated to reflect the addition of this data, which were collected by the Ingham County Health Department in 2013. The MDEQ also found four other cases where the dataset used in Appendix 1 to characterize the water body was smaller than 5 data points. In many cases, the MDEQ

uses smaller datasets ($n < 5$) in conjunction with, and to provide support for, larger datasets ($n > 5$) when characterizing the water body. To help explain this process, the MDEQ has added a code to column 11 and explanatory text in Appendix 1. The code marks AUIDs that have less than 5 data points. The MDEQ may also clarify this issue in the upcoming 2018 Integrated Report.

- 7) **COMMENT (Attachment 5):** The SEMCOG proposed that the MDEQ five-year monitoring cycle should include a component that evaluates [pollutant reduction] progress reports through all NPDES permit programs and coordinate with state agricultural programs to align all progress made in reducing bacterial sources. In areas where the most progress has been made, the MDEQ should assign resources to monitor in accordance with protocols to strategically demonstrate whether progress has been made collectively through all the regulatory programs. If the State adopts a statewide sanitary code, then that component of reducing bacterial loads can be added to the system of programs designed to reduce bacterial sources.

MDEQ RESPONSE (Attachment 6): The MDEQ is interested in demonstrating progress in all impaired waters. The MDEQ typically conducts follow-up monitoring in TMDL water bodies once significant actions have been taken to improve water quality. This is done on a case-by-case basis and on a watershed-based design, generally through the Targeted Monitoring Request process (please visit www.michigan.gov/waterquality). As noted in the SEMCOG letter (page 4 of Attachment 5), progress in urban Municipal Separate Storm Sewer Systems (MS4) is expected to be gradual and incremental. This is true of other potential sources as well. For example, even if a sanitary statewide code is passed and contains a requirement that will gradually reduce failures through inspections, progress would be slow. The MDEQ's current ambient water quality monitoring program for *E. coli* evaluates the impacts of NPDES discharges and nonpoint sources on a watershed basis using ambient monitoring. In some cases, these sites may be deliberately located in areas with NPDES discharges to determine if the facilities are contributing to a known problem, or if the permit is effective in reducing pollution. In addition to ambient monitoring conducted by the MDEQ for the purposes of determining designated use attainment or water quality changes, as a permitting authority the MDEQ is also required to ensure that NPDES permits contain requirements that monitor progress at the permit or facility level. The MDEQ believes that both ambient water quality monitoring (conducted as part of the MDEQ's surface water monitoring strategy) and NPDES facility-specific measures of progress are imperative.

No changes were made to the document based on this comment.

- 8) **COMMENT (Attachment 5):** Per the SEMCOG, page 30 of the proposed *E. coli* TMDL indicates that, *"to demonstrate progress, MS4 permittees are required to monitor the effectiveness of the BMPs during the permit term. MS4 permittees may choose to work collaboratively on the TMDL implementation plan to address an E. coli impairment. Collaborative efforts may provide an opportunity to work with watershed or regional partners in a cost-effective manner.* Additionally, the proposed *E. coli* TMDL Webinar for MS4s had an extensive discussion about requiring 'modeling or monitoring' of outfalls or in-stream waterways to demonstrate progress. The SEMCOG and its members are

very opposed to this requirement for a number of reasons further described throughout this letter”. The reasons presented by SEMCOG, include:

- a. Monitoring in-stream or outfall discharges is not a cost- or environmentally-effective method to demonstrate progress, and is difficult due to logistics and discharge variability.
- b. It appears as though the monitoring requirement is only applied to the MS4 permittees and not to any other potential sources regulated through the MDEQ or agricultural programs.

MDEQ RESPONSE (Attachment 6): Like all NPDES permits, MS4 permits must be consistent with the goals of the TMDL, but the proposed statewide *E. coli* TMDL does not define specific permit requirements; permit requirements are evaluated at the time of permit issuance/reissuance. As an MS4 permitting authority, the MDEQ is required to issue and administer MS4 permits with requirements that are clear, specific, and measurable. More specifically, to meet regulatory requirements, an MS4 permit must specify the monitoring necessary to determine compliance with effluent limitations and measure progress. To provide clarification in the TMDL document, the following text was added to page 31 of the revised document, “The required monitoring may include, but is not limited to, outfall monitoring, in-stream monitoring, or modeling to demonstrate progress toward meeting the TMDL goal”. Further clarification of the purpose and justification of the MS4 permit monitoring requirement is provided in Attachment 6.

- 9) **COMMENT (Attachment 7):** The Michigan Waste and Recycling Association expressed interest in the statewide TMDL process and requested that they be added to the MDEQ’s mailing list.

MDEQ RESPONSE (Attachment 7): The MDEQ appreciates the interest by this organization and has added the commenters as subscribers to the [“TMDLs and Integrated Reporting” Govdelivery topic.](#)