Final Massachusetts Statewide Total Maximum Daily Load for Pathogen-Impaired Waterbodies

Appendix AC: Response to Comments

Commonwealth of Massachusetts
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December 2024

CN 515.1.29

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Suggested Citation
MassDEP. 2024. Final Massachusetts Statewide Total Maximum Daily Load for Pathogen-Impaired Waterbodies. CN 515.1, Massachusetts Department of Environmental Protection, Bureau of Water Resources, Division of Watershed Management, Watershed Planning Program. Worcester, MA.

Available Online
https://www.mass.gov/lists/total-maximum-daily-loads-by-watershed

Massachusetts Department of Environmental Protection
The mission of the Massachusetts Department of Environmental Protection (MassDEP) is to protect and enhance the Commonwealth's natural resources – air, water, and land – to provide for the health, safety, and welfare of all people, and to ensure a clean and safe environment for future generations. In carrying out this mission MassDEP commits to address and advance environmental justice and equity for all people of the Commonwealth; provide meaningful, inclusive opportunities for people to participate in agency decisions that affect their lives; and ensure a diverse workforce that reflects the communities we serve.

Watershed Planning Program
The mission of the Watershed Planning Program (WPP) in the Massachusetts Department of Environmental Protection is to protect, enhance, and restore the quality and value of the waters of the Commonwealth. Guided by the federal Clean Water Act, WPP implements this mission statewide through five Sections that each have a different technical focus: (1) Surface Water Quality Standards; (2) Surface Water Quality Monitoring; (3) Data Management and Water Quality Assessment; (4) Total Maximum Daily Load; and (5) Nonpoint Source Management. Together with other MassDEP programs and state environmental agencies, WPP shares in the duty and responsibility to secure the environmental, recreational, and public health benefits of clean water for all people of the Commonwealth.

Acknowledgements
FB Environmental Associates, under contractual agreements with MassDEP, previously prepared two separate documents for the Watershed Planning Program: (1) *Massachusetts TMDL for Pathogen-Impaired Inland Fresh Water Rivers* and (2) *Massachusetts Statewide TMDL for Pathogen-Impaired Coastal Waterbodies*. MassDEP combined these two documents into a single statewide approach encompassing both inland fresh water and coastal impairments to prepare the *Final Massachusetts Statewide Total Maximum Daily Load for Pathogen-Impaired Waterbodies*.

Disclaimer

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DRAFT MASSACHUSETTS STATEWIDE TOTAL MAXIMUM DAILY LOAD (TMDL) FOR PATHOGEN-IMPAIRED WATERBODIES (CN 515.0) DATED MARCH 2024

IN-PERSON PUBLIC MEETING ON MAY 8, 2024

VIRTUAL PUBLIC MEETING ON MAY 9, 2024

HYBRID PUBLIC MEETING ON JUNE 13, 2024

The Massachusetts Department of Environmental Protection (MassDEP), through the Watershed Planning Program (WPP) in the Bureau of Water Resources, held three public information sessions on the Draft Massachusetts Statewide TMDL for Pathogen-Impaired Waterbodies. The three public information sessions were open to everyone throughout the state and sought stakeholder input on the draft plan to reduce pathogens in Massachusetts rivers, streams, and estuaries. The first information session was held in-person from 1-3 p.m. on May 8, 2024, at MassDEP's Central Regional Office located in Worcester. The second information session was held virtually via Zoom from 6-8 p.m. on May 9, 2024. The third information session on June 13, 2024, from 1-3 p.m. was held using a hybrid format: in-person at MassDEP's Southeast Regional Office located in Lakeville and virtually via Zoom for remote attendees. Attendance records for all three information sessions, whether in-person or virtual, are included at the end of the appendix.

MassDEP received several comments on the Draft TMDL. Many comments shared similar questions and concerns regarding MassDEP's stakeholder engagement, age of data, use of external data, and TMDL implementation and enforcement. MassDEP's overall responses to these general comments are presented first, followed by MassDEP responses to comments received (1) during each information session and (2) via formal comment letters and e-mails.

General Comments and Responses:

General Approach

The Massachusetts Statewide TMDL for Pathogen-Impaired Waterbodies addresses impairments listed in Category 5 of the *Final Massachusetts Integrated List of Waters for the Clean Water Act 2018/2020 Reporting Cycle* (2018/2020 Integrated Report; MassDEP, 2022b) for select waterbodies that did not already have a final TMDL approved by the U.S. Environmental Protection Agency (USEPA). TMDL development is based on the latest Integrated Report at the time, but the TMDL development process can span multiple years. For example, this TMDL used the 2018/2020 Integrated Report, and not the *Final Massachusetts Integrated List of Waters for the Clean Water Act 2022 Reporting Cycle* (2022 Integrated Report; MassDEP, 2023), because the TMDL was already at an advanced stage of development when the 2022 Integrated Report was finalized in 2023. However, the goal of the statewide TMDL approach is to more easily facilitate updates to the TMDL as future Integrated Reports are finalized, allowing for a more coordinated approach. The statewide pathogen TMDL approach is well established within New England and with the completion and USEPA approval of this TMDL, all states in the region will have statewide pathogen TMDLs.

There are several previous USEPA-approved pathogen TMDLs in Massachusetts that are part of the public record. It is not possible to merge existing pathogen TMDLs into this TMDL document. Subsequent to USEPA-approval of this TMDL, the publicly available MassDEP TMDL Viewer (https://www.mass.gov/info-details/total-maximum-daily-load-tmdl-viewer) will be updated to easily identify all watersheds associated with an approved pathogen TMDL. The TMDL Viewer, developed by WPP, depicts all final USEPA-approved TMDLs. This TMDL does not replace or supersede any previously USEPA-approved pathogen TMDLs.

Stakeholder Engagement

Public participation is a required element of TMDL development. MassDEP provides a timeline of actions below that were taken to provide public notice that the draft Statewide Pathogen TMDL was available for public review and comment.

- **April 2, 2024**: WPP sent notifications for the Draft Statewide TMDL and public information sessions via an e-mail distribution list containing over 600 contacts. The notification was also sent to a MassDEP-compiled and maintained statewide Environmental Justice email distribution list, including the Massachusetts Environmental Health Association and the Massachusetts Association of Conservation Commissions. The e-mail notification contained the date and time of the first two public information sessions and instructions on how to participate in the virtual session (hosted on May 9, 2024). A copy of the draft TMDL and appendices were published on the MassDEP website.
- **April 10, 2024**: The Massachusetts Environmental Policy Act (MEPA) public notice for the draft TMDL was published in the Environmental Monitor. *Please note: All official MassDEP requests for public comment on TMDLs are published in the Public Notices section of the Environmental Monitor, the bi-weekly publication from the Massachusetts Environmental Policy Act (MEPA) Office. Information on how to register for e-mail notices can be found on the Mass.gov website here: https://www.mass.gov/info-details/the-environmental-monitor .*
- **April 26, 2024**: A MassDEP press release provided information on the draft TMDL and the first two public information sessions.
- **May 1, 2024**: The Massachusetts Office of Coastal Zone Management included notice of the TMDL in their monthly newsletter, CZ-Mail, that includes 3,420 subscribers.
- **May 2, 2024**: The Public Information Meeting Notice was posted on all MassDEP social media accounts (Instagram, X and LinkedIn).
- **May 8, 2024**: An in-person public information session was held at MassDEP's Central Regional Office from 1 p.m. to 3 p.m.
- **May 9, 2024**: A virtual public information session was held via Zoom from 6 p.m. to 8 p.m.
- **May 31, 2024**: The Massachusetts Office of Coastal Zone Management sent the June 2024 edition of CZ-Mail to its subscribers. The CZ-Mail newsletter contained notice that the public comment period for the draft Statewide Pathogen TMDL was still open.
- During the public comment period, MassDEP received requests from Town of Dartmouth officials and residents for more stakeholder outreach.
- **June 6, 2024**: WPP sent notification via an email distribution list of an additional hybrid public meeting that included the option of either in-person attendance at MassDEP's Southeast Regional Office or remote attendance via Zoom. In addition to the more than 600 contacts on the e-mail distribution list, which was also used for the April 2nd notification, Town of Dartmouth officials were sent the notification. The public comment period was also extended to June 21, 2024. This information was also posted on MassDEP social media accounts.
- **June 13, 2024**: A hybrid public information session was held at MassDEP's Southeast Regional Office.

Please note the following: when draft TMDLs are made available on the MassDEP website for public comment, the Public Participation section of the TMDL document is intentionally left blank. When the final TMDL is submitted to USEPA for approval, the Public Participation section contains a narrative description of all outreach activities that were conducted to support the TMDL process. Examples of this can be found in USEPA-approved TMDLs on the MassDEP website.

Clean Water Act Program- Overall and Communication

MassDEP would like to reiterate that the development of the Massachusetts Statewide TMDL for Pathogen-Impaired Waterbodies was one of several steps in an iterative process guided by the federal Clean Water Act (CWA) that aims to protect and restore surface waters of the Commonwealth. Every step in this iterative process has and will continue to integrate public participation.

The targets established in the TMDL are based on the Massachusetts Surface Water Quality Standards (SWQS) (MassDEP, 2021). The Massachusetts SWQS establish designated uses for surface waters and associated water quality criteria intended to protect those designated uses. The formal adoption of water quality criteria in the Massachusetts SWQS is subject to the federal CWA (33 U.S.C. §1251 et seq. [1972]) and federal Water Quality Standards Regulation (40 CFR 131). Requirements include public hearings and state and federal review. Bacteria criteria that were used to identify pathogen-impaired waterbodies in this TMDL were adopted into the Massachusetts SWQS in 2021 and were approved by USEPA in 2022. The TMDL report is not proposing any regulatory changes.

Bacteria criteria established in the Massachusetts SWQS were used to identify waterbodies impaired by pathogens. The assessment methodology for using bacteria data to identify pathogen impairments is described in the most recent Massachusetts Consolidated Assessment and Listing Methodology (CALM) Guidance Manual for the 2022 Integrated Report (MassDEP, 2022a). This listing process involved a bi-annual data solicitation whereby stakeholders can submit quality-assured data to WPP for use in assessments. For more information on external data submittals see: https://www.mass.gov/guides/external-data-submittals-to-the-watershed-planning-program.

Only data that were used to make assessment decisions and have gone through an extensive quality assurance and quality control (QA/QC) process were used in the TMDL. This approach was implemented to ensure that the TMDL indicator bacteria reduction calculation methodology was applied consistently throughout the state. Furthermore, the surface waters included in this statewide TMDL document were listed as impaired using a public process that included opportunities for stakeholder input. Specifically, during the 2016 reporting cycle, MassDEP made a concerted effort to:

> "*Validate and report on its back-logged monitoring data, and to streamline the assessment and listing process. This culminated in the completion, for the 2016 integrated reporting cycle, of a statewide assessment (i.e., all watersheds) of the shellfish harvesting, primary and secondary contact recreation and aesthetic uses, as well as the assessments of the aquatic life use-attainment status of 15 watersheds and/or coastal drainage systems.*" (MassDEP, 2019) (https://www.mass.gov/doc/final-massachusetts-year-2016-integrated-list-of-waters/download)

The federal CWA requires states to submit reports on the status of their waterbodies every two years. These reports are called "Integrated Lists of Waters" (Integrated Reports). Section 303(d) of the CWA requires states to identify those waterbodies that are not expected to meet surface water quality standards after the implementation of technology-based controls and to prioritize and schedule them for the development of a TMDL. The development of the 303(d) list (Category 5 of the Integrated Report) includes a public review and comment process. USEPA reviews and approves the 303(d) list. According to the CWA, each state must develop TMDLs for all waters identified on their Section 303(d) list of impaired waters. A TMDL establishes the maximum amount of a pollutant that a waterbody can receive and still attain water quality standards. Under the CWA, USEPA reviews and either approves or disapproves the TMDL.

When USEPA approves the Integrated Report, the next step in the process is developing TMDLs. For example, the Massachusetts Draft Statewide TMDL for Pathogen-Impaired Waterbodies required multiple years of

development to address pathogen impairments on the 303(d) list. After finalizing the TMDL report, MassDEP will submit the TMDL to USEPA for review and approval.

In summary, the development of the Draft Massachusetts Statewide TMDL for Pathogen-Impaired Waterbodies and the required processes under the federal CWA that preceded it, involved significant MassDEP stakeholder interaction and public involvement. TMDLs are not developed in isolation or without consideration for federal and state water resource management procedures and objectives. However, MassDEP will continue to refine the outreach process based on public feedback.

Age of Data Used in the TMDL

For consistency, the same data used to identify pathogen-impaired surface waters in the *Final Massachusetts Integrated List of Waters for the Clean Water Act 2018/2020 Reporting Cycle* (MassDEP, 2022b) were summarized in the TMDL. MassDEP's rationale for the inclusion of older data in assessments (and not necessarily the most recent data) is provided in the Response to Comments (RTC) document for the 2018/2020 Integrated Report (MassDEP, 2022c). While MassDEP strives to use the most recent data available for both assessments and Integrated Reports, data greater than five years old are sometimes used, especially given WPP's rotating basin monitoring schedule. For the data years used in assessments, the more recent data are given priority in decision-making. MassDEP is actively working on system improvements to maximize data currency in assessment decision-making (i.e., minimize the time lag between data collection and reporting).

More recent data collected by federal and state agencies, local municipalities, and environmental organizations were not used in the development of the TMDL because they were either collected after USEPA approval of the 2018/20 Integrated Report or not included as part of the assessments within the 2018/20 Integrated Report. As described above, the TMDL was developed based on the latest Integrated Report at the time (i.e., the 2018/20 Integrated Report) because the 2022 Integrated Report was finalized when the TMDL was at an advanced stage. Many of the waterbodies included in this TMDL have been listed as impaired for many years across multiple Integrated Reports, and TMDL development is required. However, MassDEP and USEPA recognize that municipalities have done, and are continuing to do, a significant amount of work to monitor and control bacterial contamination of surface waters.

Use of External Data

Dedicated environmental organizations have been submitting high quality bacteria data to MassDEP for decades, and many have expressed concerns that their data were not used in the TMDL. This TMDL presented the data that were used in prior water quality assessments used to identify the waterbodies as impaired for pathogens, specifically, the 2018/2020 Integrated Report. In some cases, data from external organizations were used to identify pathogen-impaired waterbodies as part of the assessment process and were thus used in the TMDL report. As previously noted, the targets and loading calculations established in the TMDL are based on the Massachusetts SWQS. The water quality data and the estimated indicator bacteria reductions in the TMDL provide an estimation of the pollutant reductions needed for each segment to meet applicable water quality criteria established in the Massachusetts SWQS.

It is important to highlight that the finalization and approval of this TMDL is not the end of the process. External data have and will be used in future re-assessments. The Data Management and Water Quality Assessment Section in MassDEP's Watershed Planning Program provides guidance that describes how to submit data that can be used to support water quality assessments as required by CWA Sections 305(b), 314, and 303(d). Organizations and individuals that collect quality-assured surface water quality data are encouraged to submit these data to MassDEP's Watershed Planning Program. The guidance for submitting data is available on this website:

https://www.mass.gov/guides/external-data-submittals-to-the-watershed-planning-program

Implementation and Future Enforcement of the TMDL

In general, MassDEP is pursuing a cooperative approach in addressing nonpoint sources of contamination by bacteria. A total of 260 cities and towns in Massachusetts do have legal requirements to implement best management practices (BMPs) under their National Pollution Discharge Elimination System (NPDES) stormwater permits. Many towns with sewer systems have requirements under NPDES permits related to operation and maintenance of their sewer system. Given challenges related to climate change, aging infrastructure, natural hazards, and other critical priorities, a number of NPDES permits require development of an Adaptation Plan for the Wastewater Treatment System (WWTS) and/or sewer system that permitees own and operate (USEPA, 2024). In addition, failing septic systems are required to be corrected once the local Board of Health becomes aware of these systems and at the time of property transfer should the required inspections reveal a problem. Other activities, such as farming involving livestock, are the subject of cooperative control efforts through such organizations as the Natural Resources Conservation Service (NRCS), which has a long history of providing both technical advice and matching funds for instituting BMPs on farms. While MassDEP has enforcement tools available, the Department intends to fully pursue cooperative efforts that offer the most promise for improving water quality.

Since conditions may change from when the assessment data were collected, data collection and analysis are critical steps in the TMDL implementation process after the TMDL is approved. A local municipality or interested party may want to establish specific goals to reflect local concerns as part of a nine-element watershed-based plan. For more information see: https://www.mass.gov/info-details/nine-element-watershed-based-plans-information. Please also see Sections 5 and 7 of the TMDL for information on implementation, financial resources and other tools to restore water quality.

Questions & comments received on May 8th from in-person meeting attendees:

1) How are legacy contaminated sites dealt with in terms of impairment classification? By legacy I mean conceivably, over 100 years of contamination that was never properly remediated that's still out there and being reflected in the pathogens that you're talking about. How is that dealt with in the methodology? What about PFAS? Where is the TMDL for that right now?

- **Howard Erlichman**

MassDEP Response: *TMDLs are typically prepared to address a specific type of pollutant. This TMDL report applies statewide for waterbodies identified as impaired for pathogens in the Final Massachusetts Integrated List of Waters for the Clean Water Act 2018/2020 Reporting Cycle (2018/2020 Integrated Report). MassDEP has developed a TMDL Strategy that prioritizes impaired waterbodies: Massachusetts Vision 2.0 Clean Water Act Section 303(d) and Total Maximum Daily Load Development (https://www.mass.gov/doc/massachusetts-vision-20-clean-water-act-section-303d-and-total-maximum-daily-load-development/download). MassDEP's priority concerns for 2024-2032 planning period are impairments caused by nutrients (nitrogen and phosphorus) and pathogens that affect public health.*

This TMDL report does not address legacy pollutants, per- and polyfluoroalkyl substances (PFAS), or other pollutants. However, the Commonwealth has identified PFAS contamination as an important emerging issue, and in 2020 the Massachusetts legislature appointed the PFAS Interagency Task Force to investigate water and ground contamination of PFAS across the Commonwealth. MassDEP's

Watershed Planning Program has completed multiple projects to investigate PFAS concentrations in surface water and fish tissue (https://www.mass.gov/info-details/pfas-in-surface-water-and-fish-tissue). For example, MassDEP jointly funded a water quality study with the United States Geological Survey (USGS) in 2020 to evaluate the presence of PFAS in Massachusetts' rivers and streams. An additional study was initiated in 2022 to collect surface water and fish tissue samples from 52 waterbodies throughout Massachusetts. Instead of developing TMDLs, actions to mitigate PFAS contamination will likely occur through relevant regulatory processes (i.e., waste site cleanup, legacy firefighting foam take-back program, NPDES permitting, residuals and biosolids, etc.). More information on Massachusetts actions to address PFAS can be found here: https://www.mass.gov/info-details/per-and-polyfluoroalkyl-substances-pfas and specifically in relation to residuals see https://www.mass.gov/info-details/pfas-in-residuals.

2) Is this the first pathogen TMDL that the state has had? Is this a big departure from the previous versions? Has it changed in any way?

- **Katharine Lange, Mass Rivers**

MassDEP Response: *MassDEP has developed several previous USEPA-approved pathogen TMDLs, which are all included in an online TMDL Viewer, developed by MassDEP's Watershed Planning Program (https://www.mass.gov/info-details/total-maximum-daily-load-tmdl-viewer). This TMDL follows the same approach as previously approved TMDLs. All targets are based on applicable water quality criteria established in the Massachusetts Surface Water Quality Standards (314 CMR 4.00). The most significant change associated with this Statewide TMDL is that MassDEP is now implementing a more efficient TMDL development process. The TMDL is structured to include a core document and watershed-specific appendices. The core document contains common information that is applicable to all pathogen-impaired surface waters and the appendices include waterbody specific information. It is anticipated that the core document will not require future revisions, and appendices will be added to address future 303(d)-listed surface waters with pathogen impairments. It is expected that this approach will reduce the time between the listing of a waterbody and TMDL development.*

Questions & comments received on May 9th from virtual meeting attendees:

3) Perhaps I just have not done enough reading of the TMDL, but the Appendix refers to the percent reductions that will be required for each of the impaired branches. Does this refer to the geometric mean? It sounds like the TMDL is going to require a certain percent reduction for each of these branches and I'm trying to understand what the percentage refers to. Is it the maximum geometric mean listed in the table? I'm referring to Appendix B Table 1-1.

-Alison Dixon, Berkshire Regional Planning Commission

MassDEP Response:

The percent reductions enumerated in the watershed-specific appendices describe the load reductions necessary to meet applicable requirements established in the Massachusetts Surface Water Quality Standards (see Section 4.4 of the TMDL core document). An example calculation that illustrates how these load reductions are derived can be found on page 21 of the TMDL core document.

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4) Our organization has done plenty of monitoring since 2007, but it seems that none of those data were useful. I've never seen 1586 in the Southwest Branch for a 90-day geometric mean. I'm a little puzzled over how that came to be for the Southwest Branch.

-Alison Dixon, Berkshire Regional Planning Commission

MassDEP Response:

Data that were used in the Draft Statewide TMDL for Pathogen-Impaired Waterbodies were based on data from the 2018/2020 Integrated Report. Specifically, the maximum geomean statistic that was used to calculate the required load reductions is based on data that were used to identify the impairment. For sampling station W1644, there was one sample on August 2, 2006, that had a very elevated count associated with an infrastructure issue that was promptly remediated. It is important to reiterate that these identified reductions are meant for planning purposes, and the objective of this TMDL is to ensure that pathogen-impaired waterbodies are restored to meet applicable requirements established in the Massachusetts Surface Water Quality Standards (314 CMR 4.00; see Section 4.4 of the TMDL core document). Please refer to the General Comments and Responses section for more information on the use of external data.

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5) So the goal is to have all sampling efforts once we implement [Best Management Practices] to have *E. coli* 126 CFU/100mL or less. We haven't been able to find any significant *E. coli* input. We think it's wildlife, and it's hard to meet, but we will work on it.

-Alison Dixon, Berkshire Regional Planning Commission

MassDEP Response:

Pathogens are associated with several sources and enter surface waters through several pathways. There is extensive existing guidance that describes implementation strategies that mitigate wildlife pathogen sources. It is also important to recognize that even if the source of the pathogen is non-human, any concentrations exceeding the relevant indicator bacteria criteria in the Massachusetts Surface Water Quality Standards (314 CMR 4.00) associated with a given designated use (Primary Contact, etc.) will result in a waterbody being designated as impaired.

6) I understand the reason for the TMDL, it gets us to focus and try and get these levels down. But it doesn't seem clear what the process for delisting is. And should this be included in the TMDL, or is it included elsewhere? How do stakeholders understand the process for delisting?

-Alison Dixon, Berkshire Regional Planning Commission

MassDEP Response:

MassDEP's Watershed Planning Program (WPP) and other state agencies collect surface water quality data. Individuals and organizations can also submit quality-controlled surface water quality data to WPP (see response to comment 4). These data are analyzed according to the Massachusetts Consolidated Assessment and Listing Methodology (CALM) Guidance Manual (MassDEP, 2022a). If data show that a waterbody, or Assessment Unit (AU), is not attaining water quality standards, the waterbody is placed on Category 5 of the Integrated Report (or 303(d) list) and prioritized for TMDL development. When a TMDL is approved for an impaired waterbody, that waterbody is delisted for that specific pollutant, but may remain on Category 5 if it is still impaired by other pollutants. Specifically, the 2022 CALM Guidance Manual states:

> *"Impairment removals take one of two forms: 1) delisting of a pollutant (removal from Category 5/the 303(d) list) or 2) restoration of a pollutant (removal from Category 4a) or a non-pollutant (removal from Category 4c). Since MA reports on the overall AU status in the [Integrated Report], removal of an impairment by delisting or restoration may not necessarily result in a change of the category of the AU in the [Integrated Report] if there are additional causes of impairment (i.e., the AU can appear in only one category). Both delistings and restorations follow the same procedure, but pollutant delistings require approval by USEPA (MassDEP, 2022a, page 72)."*

Acceptable reasons for delisting are also presented in the 2022 CALM Guidance Manual (MassDEP 2022a, page 75). Continued monitoring during and after TMDL implementation is essential for tracking water quality improvement. If, based on the CALM Guidance Manual, new data show that water quality standards are being attained, the listing status may be updated. However, it is important to note that water quality improvement may not occur for several years.

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7) Can 604(b) funds be used for monitoring projects that assess the current use attainment of surface waters impaired for pathogens?

-Alison Dixon, Berkshire Regional Planning Commission

MassDEP Response:

The Nonpoint Source Management Section in MassDEP's Watershed Planning Program administers two grant programs to address nonpoint source pollution: the Clean Water Act (CWA) Section 604(b) Water Quality Management Planning Grant and the CWA Section 319 Nonpoint Source Implementation Grant. Groups interested in water quality monitoring and TMDL implementation efforts may consider applying for the CWA Section 604(b) grant, which includes, but is not limited to, the following project categories: determination of the nature, extent, and causes of water quality problems; determination of pollutant load reductions necessary to meet established requirements in the Massachusetts Surface Water Quality Standards (314 CMR 4.00); and development of nine-element Watershed-Based Plans (WBPs) to restore impaired waters and protect healthy waters. Continued monitoring following the

approval and implementation of TMDLs is a critical stage in restoring impaired surface waters. This monitoring enables state and local officials to measure the success of implementation. CWA Section 604(b) grants can and have been used to fund these types of efforts. Summaries of past CWA Section 604(b) and Section 319 projects are available on this website:

https://www.mass.gov/info-details/grants-financial-assistance-watersheds-water-quality#sections-604(b)-and-319-and-project-summaries-

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8) For water sampling data to be used to remove an impaired segment from the 303(d) list, is it required that the water samples be taken at the same locations as the water samples that were used to originally to list the waterbody?

-Alison Dixon, Berkshire Regional Planning Commission

MassDEP Response:

No. New data collected within a listed segment are reviewed for quality (e.g., representativeness, accuracy, and precision) and usability for assessment. Data considered usable and sufficient can be employed to justify removal of an impairment cause. The data do not need to be based on the same sampling design or from the same locations within the assessment unit. Stakeholders should consult the Data Management & Water Quality Assessment Section in MassDEP's Watershed Planning Program when designing sampling efforts to meet quality assurance objectives.

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9) We are dealing with some problems explaining to the public regarding what the numbers mean. We have many exceedances above 126 CFU/100mL but explaining the rolling geomean is difficult when maybe the next sample is below 126 CFU/100mL, but then you had one that was hundreds or thousands. So that is going to stay impaired for the probably the whole summer. Any thoughts on that?

-Barbara Kickham, Lake Quinsigamond Watershed Association

MassDEP Response:

MassDEP's Watershed Planning Program, through the Surface Water Quality Standards Section, developed a technical guidance document to support calculation of the rolling geometric mean associated with the Primary Contact Recreation designated use established in the Massachusetts Surface Water Quality Standards (314 CMR 4.00). The technical guidance document is entitled, "Surface Water Quality Criteria for Bacteria: Implementation Guidance for the Protection of Human Health in Waters Designated for Primary Contact Recreation," which can be accessed on the Massachusetts Surface Water Quality Standards webpage: https://www.mass.gov/regulations/314-CMR-4-the-massachusetts-surface-water-quality-standards.

When a waterbody is listed as impaired for pathogens, the waterbody stays on the 303(d) list until either future data show that the waterbody is no longer impaired or until a TMDL is approved (or other "good cause" for removal is documented and approved).

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10) I have been wondering if the TMDL allocation should be summed in the appendices, should the WLA [waste load allocation; point sources] and LA [load allocation; nonpoint sources] be added up?

-Barbara Kickham, Lake Quinsigamond Watershed Association

MassDEP Response:

We appreciate that suggestion, and we will consider adding the total WLA and LA to future TMDL documentation. We are able to provide the sum of the WLA and LA of specific watersheds in an electronic format upon request.

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11) Should streams that enter a swimming waterbody where there's public beaches be considered for a 30-day rolling average? So, I'm looking at Coal Mine Brook and Poor Farm Brook, which enter Lake Quinsigamond, and they're both 90-day, but they contribute a lot of stormwater to the lake, which is heavily used recreational activities on it as you know most of the year because of the rowing. We have high bacteria levels coming out of these places going into the lake.

-Barbara Kickham, Lake Quinsigamond Watershed Association

MassDEP Response:

In terms of assessing water quality, the appropriate duration interval to apply (i.e., 30 or 90 days) is based on the waterbody classification and qualifiers as designated in Massachusetts Surface Water Quality Standards (314 CMR 4.00). See also the technical guidance reference in response to comment 9, especially Section 3.2. The targets and loading calculations established in the TMDL are based on the Massachusetts SWQS. A local municipality or interested party may want to establish tailored specific goals to reflect local concerns as part of a nine-element watershed-based plan. For more information see: https://www.mass.gov/info-details/nine-element-watershed-based-plans-information

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12) This TMDL does not include lakes, it only includes streams, rivers, estuaries, and bays. I think it should be clarified that this TMDL does not include lakes.

-Barbara Kickham, Lake Quinsigamond Watershed Association

MassDEP Response:

Thank you for your clarifying comment. It is correct that this TMDL does not include lakes. This is detailed in Section 1.1 of the TMDL core document, pg.1: "This report presents the Massachusetts Statewide TMDL for Pathogen-Impaired Waterbodies and provides a framework to address bacterial and other pathogenic pollutants in 210 fresh water river segments and 18 marine segments within twenty-eight watersheds in Massachusetts.".

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13) Also, there should be an emphasis on determining the kind of bacteria that's getting into the waterbody. We have a lot of problems with geese, and we have beaver dams on one of our brooks that enters the lake and is occasionally high in bacteria. We are planning on conducting some DNA marker testing and try to figure out it it's human, and that way we'll be able to do some source tracking.

-Barbara Kickham, Lake Quinsigamond Watershed Association

MassDEP Response:

We appreciate your source tracking efforts. DNA testing is promising, but it is not yet a fully reliable tool to distinguish between human and other sources of fecal bacteria. When perfected, this tool will be extremely valuable in helping target remedial actions. It is also important to recognize that even if the source of the pathogen is non-human, any concentrations exceeding the relevant indicator bacteria criteria in the Massachusetts Surface Water Quality Standards (314 CMR 4.00) associated with a given designated use (Primary Contact Recreation use, etc.) will result in a waterbody being designated as impaired. See also the response to comment 7.

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14) Will the video be available?

-Kerry Snyder

MassDEP Response:

A pdf copy of the presentation is available on the MassDEP TMDL website, and a recording of the presentation can be provided upon request. For more information see: https://www.mass.gov/lists/total-maximum-daily-loads-by-watershed#statewide-pathogen-tmdl-

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15) We have known about the concentration targets for a while now. What is new with the TMDL? Does the TMDL come with any legal requirements or enforcement?

-Ben Wetherill, OARS for the Sudbury, Assabet, and Concord Rivers

MassDEP Response:

The targets (i.e., the numeric water quality criteria for bacterial pathogen indicators) were developed by USEPA and adopted by MassDEP into the Massachusetts Surface Water Quality Standards (314 CMR 4.00). Using these water quality criteria and surface water data, MassDEP identifies waterbodies that are not meeting the Primary Contact Recreation designated use established in the Massachusetts SWQS. The aspect that is new with this TMDL is that MassDEP has used these targets to calculate load and waste load allocations that would be required to restore these impaired waterbodies.

Regarding enforcement, please refer to the General Comments and Responses at the beginning of this section.

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16) What do you mean by the pathogen TMDL being reevaluated every two years?

-Alison Dixon, Berkshire Regional Planning Commission

MassDEP Response:

MassDEP is required to submit an Integrated Report describing the status of all surface waters in the Commonwealth to USEPA every two years. This Integrated Report includes all impaired waterbodies that are not meeting established requirements in the Massachusetts Surface Water Quality Standards (314 CMR 4.00). As stated in Section 1.3 of the TMDL core document, fresh water river or coastal waterbody segments that are assessed as impaired by MassDEP after approval of this TMDL report will be added as an addendum in revised versions of the report. Future submittals will provide detailed information on the impaired waterbodies as provided in the watershed appendices. MassDEP does not

anticipate that the core document will be modified in the future. MassDEP will provide public notice of the opportunity to provide comments on draft revisions, and then submit the final version to USEPA for review and approval.

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17) On the east branch we've tested above the impaired segment and found some pretty high levels that we're not quite sure where the source is. So that could be amended, perhaps down the road?

-Alison Dixon, Berkshire Regional Planning Commission

MassDEP Response:

We encourage the submission of quality assured data for potential water quality assessment updates. Please see section Use of External Data above. See also the response to comments 6 and 7 above.

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18) Your presentation indicated that that point sources would be handled through permitting, but nonpoint sources, you used the term voluntary actions in order to bring the waterbody into compliance which makes sense if there are not laws for people that are contributing bacteria to the environment. Single-family residential land use contributes significantly more bacteria than industrial properties or land use. It seems like there's no way to deal with or implement remediation for nonpoint sources. Is that what we're dealing with here?

-Peter Severance, River Merrimack

MassDEP Response:

Regarding enforcement, please refer to the General Comments and Responses at the beginning of this section.

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19) The big problem is stormwater. Does this speak to municipal separate storm sewer systems (MS4) permit requirements? Can you talk about MS4 permits and if there are any opportunities to control MS4 stormwater?

-Peter Severance, River Merrimack

MassDEP Response:

Yes, there are requirements built into MS4 permitting. The National Pollutant Discharge Elimination System (NPDES) Phase I and Phase II stormwater permitting programs require the regulated entities to develop, implement, and enforce a stormwater management program (SWMP) that effectively reduces or prevents the discharge of pollutants into receiving waters to the maximum extent practicable. Stormwater discharges must also comply with applicable requirements established in the Massachusetts Surface Water Quality Standards (314 CMR 4.00). The Phase II permit uses a best management practice (BMP) framework and measurable goals to meet the maximum extent practicable and water quality standards. Individual municipalities not regulated under an NPDES Stormwater Permit should implement the same six minimum control measures to minimize stormwater contamination. If a TMDL has been approved for any waterbody into which the MS4 discharges, as a requirement of the permit, the permittee must determine whether the approved TMDL is for a pollutant likely to be found in stormwater discharges from the MS4. If the TMDL includes a pollutant waste load

allocation, BMPs, or other performance standards for stormwater discharges, the permittee must incorporate into their SWMP the recommendations in the TMDL for limiting the pollutant contamination. The permittee must assess whether the pollutant reduction required by the TMDL is being met by existing stormwater management control measures in their SWMP or if additional control measures are necessary. As TMDLs are developed and approved, stormwater management programs and annual reports from permittees must include a description of the BMPs that will be used to control the pollutant(s) of concern, to the maximum extent practicable. Annual reports filed by the permittee should highlight the status or progress of control measures currently being implemented or plans for implementation in the future. Records should be kept concerning assessments or inspections of the appropriate control measures and how the pollutant reductions will be met.

Questions & comments received on June 13th from in-person and virtual meeting attendees:

20) Good afternoon. My name is Robert Almy. I am the chair of the Dartmouth Public Works Board. It is an appointed position; I am trying to retire. As I tell people, I'm retired and working full time and not getting paid for any of it. And I'd like to thank you folks for part of my workload. It keeps me interested and meeting new people and re-engaging with some issues. I have 47 years working with and for public agencies in resource management, mostly water resources. As a second job, for 18 years I taught environmental studies at the University of California in Santa Barbara. I am a big fan of science applied. There are two parts to this: there's the science, and how it's applied and I'm going to address both of those today. First, and I want to focus on the Paskamansett and another watershed in the Shingle River Watershed in Dartmouth. That's what I've focused on, so I don't make any comments on other watersheds as to the science. The science behind the designation of the Paskamansett River cannot be supported. Five grab samples from a river ten miles long, taken 19 and 12 years ago, respectively, doesn't reflect current conditions, no matter how much work you do on these statistics. I will remind you of the famous line from Mark Twain. There are lies, there are damn lies, and there's statistics. Okay? So we challenge the designation proposed. We also request all of the metadata having to do with the sampling to do with the sampling including: the identification and qualification of the samplers, the sampling technique used, chain of custody forms, and laboratory used to analyze the samples. We'd like to look at the background. If you use old data, we want to know what it looks like, in detail. In addition, the description of the watershed, the characterization of the appendix, is at least six years out of date with respect to local and regional planning documents, current land uses, and land use restrictions. We just, as a community and with our partners, spent almost a million dollars to tie up a very large undeveloped property in our watershed to protect water quality in surface water and our water sources. That's pretty significant. We've updated what in some areas is called the General Plan or the Comprehensive Plan. We've updated a number of other open space plans. None of this is reflected in the appendix. This is not good science. You're probably aware that science is under attack in this country, unfortunately. I would be really disappointed if this were an example of bad science, and we had to go into some kind of formal process and discuss it further in public. Not with something as important as water quality. Now, to the science applied part. How science is applied is essential for whatever proposed action, its credibility, and its implementation. I want to point out the following, I read these documents reasonably closely, I don't see anywhere in the public facing materials information on what specific agency will approve or recommend the TMDL to EPA, and how that approval process works. This is an important action. We also need to know how to challenge any proposed actions. Okay, we'd rather do this in a conference room talking about a specific watershed rather than go to it the way of some of the legal consulting firms do. I don't have to name them. Some of us in this room have dealt with the ramifications on Cape Cod. Which, and I guess I can say, from the perspective of looking across the bay at Cape Cod, maybe that's motivated to for some communities to make progress that they wouldn't have otherwise made. But I've been aware of the Sole Source Aquifer Problem in Cape Cod for decades, and somehow that hasn't been addressed by the people who drink the water. That's unfortunate, that's on them. Without a last-minute objection, the process here would have included a single public hearing in Worcester. As far as I can tell, in conversations with throughout the town of Dartmouth, we didn't receive any notice. So clearly, that's not acceptable. And I suspect there are still towns and cities in the Commonwealth who have no idea this is going on. That's what I suspect. That's not a good thing this is too important, and you do need those towns and cities as partners in this. And finally, public participation. Your draft TMDL has "Chapter 8: Public Participation". This is what's in your document Alright? It says "Placeholder". Now, I've had a fair amount of years doing really difficult problems in public, where some segments of the public or an element of the community, like agriculture, like oil and gas companies, don't want to do things. The 26 years ago I started implementation of a regional MS4 program. It was for a large unincorporated area in California about two thirds the size of the State of Connecticut and 6 small communities, and we developed their plans for them. We put together sampling and all the stuff and we

sold the communities. Public participation and involvement is the most important element of a nonpoint source pollution control program for three reasons: change in behavior is the only effective control, period. Citizens' support is essential for the adoption of local regulations, whatever they are. Without the support, you go to town meeting, nothing happens. And, most importantly, public support is essential for the allocation of limited tax dollars. I can tell you in Dartmouth that we don't spend a million dollars a year on roads that need it because it goes to school. That kind of competition is happening everywhere in the Commonwealth. And even in those towns that are lucky enough to be able to pay pass the tax override. So, in conclusion, I support your programs to improve water quality, but DEP can't do this alone. I observed that public health and safety is one of the most important roles for local government. That's us. So I urge you to consider the best scope and basis for an effective TMDL process; which I think is smaller areas, watersheds groups into smaller areas, and that DEP engage affected cities and towns in each of these smaller areas directly and develop a collaborative process in each area. I think it's important that this program be successful, and I want it to be successful. And I think, as it's setup, there's too broad a scope in what you're trying to accomplish. That's my opinion. Thank you for the opportunity to give you comments, and I'll be happy to answer any questions. If not, I yield my time to others. Thank you.

-Robert Almy, Chair of the Dartmouth Public Works Board

MassDEP Response:

Thank you for your comment and your decades of public service.

As stated in the "General Comments and Responses" at the beginning of this section, the several steps that proceeded the development of this draft TMDL involved significant opportunities for public participation and input. For example, the bacteria criteria used to identify pathogen-impaired surface waters were based on USEPA's nationally recommended criteria. MassDEP adopts water quality criteria into the Massachusetts Surface Water Quality Standards (314 CMR 4.00) to protect designated uses (e.g., Primary Contact Recreation). Adoption of any new or revised criteria into the Massachusetts SWQS first requires a formal regulatory process that involves public hearings and opportunities for public comment. USEPA subsequently reviews and approves any revisions to the Massachusetts SWQS, which is required for new or revised criteria to be used for Clean Water Act purposes, such as water quality assessments.

The surface waters included in this statewide TMDL document were listed as impaired using a public process that included opportunities for stakeholder input. Specifically, the Paskamansett River was listed as impaired for pathogens during the 2016 reporting cycle, Massachusetts Year 2016 Integrated List of Waters (MassDEP, 2019). This impairment was based on data collected in 2005 and 2013. The Draft Massachusetts 2016 Integrated List of Waters (Integrated Report) was published on the MassDEP website. Notice of its availability for public review and comment appeared in the August 23, 2017, edition of the Massachusetts Environmental Monitor and was provided directly to over one hundred different watershed associations and other interested parties. The public comment period ended on October 23, 2017. Adjustments were made to the 2016 Integrated Report as a result of public comments received and discussions with USEPA during the final review and approval process. The Integrated Report listed the Paskamansett River in Category 5 as impaired by pathogens and requiring a TMDL. Therefore, this river is included in this statewide TMDL.

In the TMDL, as shown on Table 5-3 in "Appendix Z: Buzzards Bay Coastal Drainage Area," in 2005 two stations were sampled monthly over a five-month period. Data for E. coli, enterococci, and fecal coliform were collected during each sampling event. These data show that both the statistical threshold value (STV) and the rolling geomean of the criteria were exceeded in both stations. An additional station was sampled in 2013 over a five-month period, and again the data showed that both the STV

and the rolling geomean were exceeded. Based on the assessment guidelines described in the Massachusetts Consolidated Assessment and Listing Methodology (CALM) Guidance Manual, this waterbody was listed as impaired.

Since surface water conditions may change from when data were collected and used for assessments, data collection and analysis are critical steps in the TMDL implementation process after the TMDL is approved. MassDEP and USEPA recognize that municipalities have done, and are continuing to do, a tremendous amount of work to control bacterial contamination of surface waters. The statewide TMDL provides some examples of that overall effort, but it is not an exhaustive listing of all the work required to finalize this effort and provide a status of that work. However, some programs, such as current Massachusetts MS4 permits, require these status reports, and those will be very valuable in assessing priorities and future work.

In terms of the TMDL approval process, when the draft TMDL is updated with public comments and finalized, MassDEP will submit the final TMDL to USEPA, which has 30 days to review the document and respond with either an approval, partial-approval, or rejection. It is important to recognize that the TMDL development and approval process is not associated with a regulatory change. TMDLs are planning documents that provide estimated pollutant loads from point and nonpoint pollutant sources and describe the estimated load reductions needed for the waterbody to meet applicable requirements in the Massachusetts SWQS. In terms of both public outreach and the Public Participation section in the TMDL document, please refer to the General Comments and Responses section.

MassDEP recognizes that water quality improvement cannot be accomplished without the support of local communities. The NPS implementation that is needed to accomplish load reductions is voluntary. MassDEP encourages local municipalities, environmental groups, and other stakeholders to utilize available funding sources.

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21) I'm sorry I don't have my camera on. Okay, so it was really just a question, not a comment. At the start of the presentation, I heard that TMDLs are administered through the NPDES program, and I just wondered whether you know the activities associated with TMDLs would then be eligible for Section 319 Grants.

-Patty Gambarini

MassDEP Response:

Thank you for your comment. The TMDL waste load allocations, which are associated with regulated point sources of pollution, are administered through the NPDES program and other permitting efforts. The TMDL load allocations, associated with NPS pollution, are implemented through voluntary efforts. MassDEP's NPS Management Section in the Watershed Planning Program administers two NPS grant funding programs under the Clean Water Act (CWA) that address NPS pollution: (1) the CWA Section 604(b) Water Quality Management Planning Grant and (2) the CWA Section 319 NPS Implementation Grant. The Clean Water State Revolving Fund (CWSRF) is another funding option for larger projects.

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22) I'm, for the record, Christopher Michaud, Director of Public Health for the Town of Darthmouth, Massachusetts. Thank you for this opportunity to talk today about the Draft Massachusetts Statewide Total Maximum Daily Load for Pathogen-Impaired Waterbodies. This is an important plan, however, I feel the fast track nature that MassDEP has undertaken, that only beginning in late April, advising of the intent through

a press release of this plan, and then quickly holding a public hearing in the central part of the state at 1:00 to 3:00PM, and only after our pleading did they offer this opportunity today, again between one and three in the southeast. While we applaud MassDEP for providing this opportunity, in the southeast region of MassDEP, the one to three PM does not provide for adequate participation by the public to provide oral testimony. Many people are working at this time and cannot take the time from work, others are on vacation or with school obligations with children graduating. This is an important process for the entirety of the Commonwealth with the overwhelming singular landscape of Massachusetts being color coded pink because of impaired waterbodies as part of this plan. I plead for MassDEP to open up more opportunity and not abruptly close this on June 21st. If we are to be successful in this plan, we must engage the stakeholders, businesses, nonprofits, government agencies on all levels, municipal, planning, health, conservation, executive bodies; this is going to require the entirety of the team. Rushing ahead and cutting out this important part of the process is merely going to result in another TMDL plan being stuffed on the shelf, which is a should and not a shall. We'll leave it there until we have another problem that arises to catastrophic levels and possibly being forced by external interest to force the State into making the correction. I plead for MassDEP to exercise some restraint in closing this to broaden the outreach across the regions, to do outreach with the cities and towns, and not close the public hearing. I'll be providing written comment with some of my concerns about some of the technical aspects of this. But this is an important process that we all to be part of. Please do not close this on the 21st. Thank you.

-Christopher Michaud, Director of Public Health for the Town of Dartmouth, Massachusetts

MassDEP Response:

Thank you for your comment. Please refer to the General Comments and Responses at the beginning of this section for a clarification of MassDEP's outreach efforts.

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23) Hey everybody. Thank you. Korrin Petersen, Vice President of Clean Water Advocacy at the Buzzards Bay Coalition. Just a clarifying question; back in 2009 MassDEP submitted a pathogen TMDL for Buzzards Bay at EPA, which EPA approved. I think there were like 52 segments included in that 2009 Pathogen TMDL. I was wondering are these, the segments that are included on Appendix Z for this statewide pathogen TMDL, additions to, and what happens to the 2009 TMDL. So, if you could clarify how those 2 different TMDLs are married together that would be, that would be great. Thank you.

- Korrin Petersen, Vice President of Clean Water Advocacy at the Buzzards Bay Coalition

MassDEP Response:

Thank you for your comment. Current USEPA-approved TMDLs are still in place. The Statewide TMDL for Pathogen-Impaired Waterbodies was written for waterbodies that do not have a USEPA-approved TMDL. Please also refer to the General Comments and Responses at the beginning of this section.

Questions & comments received via e-mail:

24) Comments Received from Charles River Watershed Association

Charles River Watershed Association

June 21, 2024

Via Email

MassDEP
Watershed Planning Program
Attention: Timothy Fox
8 New Bond Street
Worcester, MA 01606

Re: Draft Massachusetts Statewide TMDL for Pathogen-Impaired Waterbodies and Appendix P: Charles River Basin and Coastal Drainage Area

Dear Mr. Fox:

Charles River Watershed Association ("CRWA") appreciates the opportunity to comment on the draft Massachusetts Statewide Total Maximum Daily Load for Pathogen-Impaired Waterbodies (the "Draft Statewide Pathogen TMDL"), and Appendix P, relating to the Charles River Basin and Coastal Drainage Area.

As one of the country's oldest watershed organizations, CRWA protects, restores, and enhances the Charles River and its watershed through science, advocacy, and the law. Over the last five decades, our initiatives have dramatically improved water quality in the watershed, fundamentally changed approaches to water resource management, and protected the Charles River as a public resource for current and future generations. In 2005, CRWA was instrumental in the development of the phosphorus and nitrogen total maximum daily load ("TMDL") for the Charles River, and in 2017, we were involved in the Vision 1.0 process. More recently, we submitted comments on the Draft Massachusetts Vision 2.0: Clean Water Act Section 303(d) and Total Maximum Daily Load Development.

CRWA is grateful to the Massachusetts Department of Environmental Protection's ("MassDEP") Watershed Planning Program for their continued efforts to establish TMDLs for impaired waterbodies throughout the state. However, we have concerns about the collection and analysis of the data presented in the Charles-specific appendix, as well as a few more generalized concerns. These are primarily that:

- almost all the data in Appendix P appears significantly outdated;
- Appendix P covers only a handful of waterbodies in the Charles River watershed;
- the TMDLs and samples in Appendix P do not provide a complete picture of seasonal and weather-based variation; and,
- the TMDLs are not presented in a format that is conducive to aiding remediation efforts.

Charles River Watershed Association
41 West Street, Floor 8 Boston, MA 02111 t 617 540 5650 www.crwa.org

CRWA also has more generalized concerns related to the Draft Statewide Pathogen TMDL's failure to meaningfully acknowledge the effects of climate change. To help ensure the most robust protection for waterbodies in the Charles River watershed and throughout the state, CRWA respectfully submits the following comments.

Timeliness of the Data and Sampling

While we understand the difficulties associated with collecting appropriate samples, CRWA is concerned that within the Charles River watershed, no sample cited in the report is more recent than 2010, and most are from 2007 or earlier. This means that all of the data concerning the Charles River watershed are at least 14 years old. The watershed area has seen considerable development in that timeframe; data collected from over a decade ago may provide a helpful starting point to discover changes over time in pathogenic pollution in the Charles, but should not be considered a current picture of the watershed's health. To respond to these concerns and to clarify how pathogen TMDLs have been developed in the Charles River watershed, we hope MassDEP will address the following questions:

- What, if any, data on the Charles River watershed collected since 2010 was used in developing this TMDL?
- If no data collected since 2010 was used in developing the TMDL for the Charles River Basin and Coastal Drainage Area, what challenges led to the lack of more data being used?

CRWA is aware that other watershed and non-profit organizations have similarly noted the use of outdated data for the development of pathogen TMDLs in their areas. With that in mind, CRWA hopes that the final TMDL will - if it does not include more recent data on the Charles River watershed - include an explanation of the issues posed by the use of outdated data, and a plan to proactively address those issues.

Clarification of the Selection Methodology

The data for the Charles River watershed only addresses 7 tributaries identified in the report as impaired, only one of which is in the Lower Basin. Neither the report nor the section addressing the Charles River watershed specifically explains how those tributaries were identified. While the TMDL cites the Integrated List of Waters for the Clean Water Act 2018/2020 Reporting Cycle[1] as the source of these designations, even that citation raises the following issues: (1) that list is not the most recent such list[2],

[1]https://www.mass.gov/doc/final-massachusetts-integrated-list-of-waters-for-the-clean-water-act-20182020-reporting-cycle/download
[2]See Integrated List of Waters for the Clean Water Act 2022 Reporting Cycle, https://www.mass.gov/lists/integrated-lists-of-waters-related-reports

and (2) that list is opaque as to when, where, and how much data was collected in order to identify pathogen impaired waterbodies. Further, specific segments that are identified in the 2022 and 2018/2020 reports as requiring a TMDL due to impairment from *E. Coli*, including the Charles (e.g. segments MA72-03, and MA72-04[3]) are not included in this TMDL.

While it is reasonable for sampling data to be limited by resources, this data does not cover a broad geographic area or an effective sampling of the more developed areas of the watershed that are likely contributing disproportionately to pathogen presence in the Charles. There are several concerns specifically related to which waterbodies are included in the TMDL and Appendix P which should be addressed in the final report, either through changes that include more complete data, or from a review of the gaps in the report including explanations for those gaps and a proactive approach towards filling them. To address these issues, CRWA requests that MassDEP respond to the following questions:

- How and why were the seven waterbodies included in the TMDL selected?
- Why were others, such as the two portions of the Charles above identified, omitted?

The 2007 Charles River pathogen TMDL does address some of the impaired waterbodies not addressed in this report, but considering the significant growth of urban development in the region, change in weather patterns due to climate change, and the upcoming RDA permitting process, CRWA believes that addressing all impaired waterbodies in the watershed with the most up-to-date data available is necessary for a complete, comprehensive report. The next draft should, if it does not include a more comprehensive accounting of waterbodies in the Charles River watershed, include an explanation of the issues resulting in so few waterbodies being addressed within the watershed, and a plan to address those issues proactively. If this was simply because TMDLs were previously developed for similarly impaired waterbodies or sections of waterbodies, the Appendix should include a note to that effect. To the degree that the limited number of TMDLs was due to a lack of capacity, CRWA welcomes any opportunities to collaborate with MassDEP.

Lack of Wet Weather Sampling and Absence of Seasonal Variation

Another issue with the data is that all of the data points presented in Appendix P are classified by MassDEP as being from dry weather. The TMDL itself identifies CSOs and especially stormwater runoff as major sources of pathogenic pollution, both of which occur primarily in wet weather. To address this issue, CRWA requests that MassDEP respond to the following questions:

- Why were no wet weather data presented? If none were collected, why not?

[3] Integrated List of Waters for the Clean Water Act 2018/2020 Reporting Cycle, p. 150

- CRWA defines "wet weather" in our watershed as 0.25+ inches of rainfall over 48 hours. MassDEP defined wet weather as .50+ inches over 72 hours for this report. Given the strong connection between pathogenic pollution and stormwater, CRWA would appreciate further clarification of the rationale underpinning MassDEP's definition of wet weather.

Additionally, the only samples used in Appendix P are from May to October. While we understand that this is MassDEP's sampling season, CRWA would like to see consideration of samples from early spring when rainfall tends to be higher, as that might again have some relevance on the level of bacterial pollution within the Charles River watershed. Though these months are outside of the traditional sampling season, community partners may have access to or have collected this valuable data, as discussed below.

Inclusion of Community Partner Data

CRWA and other organizations collect and submit bacterial pollution data to MassDEP. However, no CRWA data has been used to develop Appendix P. The same is true of sampling data that other environmental organizations have submitted to MassDEP. This is the case even where the data would be less outdated than whatever data was ultimately used. To address this issue, CRWA hopes that MassDEP can clarify:

- Why data from some environmental organizations was omitted by the report, especially where those organizations provided the most recent or fullest picture of the health of the relevant watershed.
- Whether data from environmental organizations was somehow flawed, and if so why organizations were not informed of deficiencies prior to the development of this TMDL so that better data might be collected and included.
- How data might be clarified - or the TMDL modified - to include all available quality data for watersheds.

Given that this appears to be a widespread issue that has been experienced by other watershed or non-profit organizations, CRWA would appreciate it if further explanation of volunteer data submission and selection procedures were included in the final Statewide Pathogen TMDL document.

As an additional note to ensure the most accurate reporting of local bylaws and stormwater policies within Appendix P, CRWA notes that:

- as of October 2023, Holliston has a wetlands protection bylaw[4];

[4] Town Of Holliston General By-Laws October 2023. pg. 42.

- Wellesley has no stormwater bylaw but does give their board of public works authority to regulate stormwater; the Town has instituted a stormwater utility fee[5];
- Dover is actively reviewing their stormwater management, including possibly implementing a stormwater utility fee[6]; and
- Weston now has a pet waste bylaw.[7]

Lack of Actionable Goals for Municipalities

The way in which the findings in the report are presented, especially the actual TMDLs, does not adequately support remediation actions. The report does not break down waste load allocations ("WLAs") and load allocations ("LAs") by political boundary. Although the report does explain the use of a watershed-based approach in part by saying that it will provide a "useful format for guiding both remediation and protection efforts at the municipal and regional levels by providing a coordinating framework for environmental management…"[8] it is not clear how the approach actually provides a comprehensive framework for coordination or individual action. In general, given our mission, CRWA supports watershed-wide planning. However, like many of our sister organizations, CRWA also regularly works with municipalities to clarify regulatory obligations. If MassDEP were able to provide a watershed-scale approach that also contained some level of municipal WLA planning - an approach that would work well with municipal separate storm sewer system ("MS4") permitting - it could ease compliance and remediation efforts. Without clearly identifying what the target load reductions for each municipality are, there is no clear way for anyone other than the state government to directly act on this TMDL.

While Appendix P does address the current regulatory status of municipalities surrounding each tributary, it does not give comprehensive geographic or WLA/LA breakdowns of the tributary. Instead, it acknowledges the general presence of MS4 permits, outfalls, and bylaws.[9] It also narratively identifies possible sources, in some cases with specific reference to certain neighborhoods, and in most cases using information reported by the towns themselves in their permitting document submissions.[10] Where it identifies urban stormwater runoff as a major source of pathogens, it does not provide any specific proportions. There is no specific breakdown of whether nonpoint or point sources should be the primary

[5] https://www.wellesleyma.gov/2240/Stormwater-Utility-Enterprise-Fund
[6] https://www.doverma.gov/DocumentCenter/View/3017/Dover-Stormwater-Management-Program att. T, p. 7
[7] Gen. Town By-laws, Art. XX § 8.
[8] Draft Massachusetts Statewide TMDL for Pathogen-impaired Waterbodies, p. 8
[9] Draft Massachusetts Statewide TMDL for Pathogen-impaired Waterbodies Appendix P: Charles River Basin and Coastal Drainage Area,
[10] Id.

targets for remediation, or how much action is needed. Where outfalls are linked to an impaired water body, they are not accompanied by a WLA assigned to the municipal sewer system to which those outfalls belong, let alone a WLA for the specific outfall.

Specific figures for WLA and LA, rather than percentages of the TMDL, should be presented in a clear format. Wherever possible, WLA for specific sources, and LA for specific land uses should be given. Where such findings are not feasible, methods of improving data collection in order to make such findings should be identified as an action item for remediation efforts. Ideally, Appendix P would provide sufficient meaningful action items or new actionable findings for municipalities that aim to improve their local water quality and that of the entire watershed.

The 2007 Lower Charles Phosphorus TMDL provides a framework for presenting this data in an actionable manner. In that report, a breakdown of both current and maximum daily loads was presented for each municipality as a whole, and for each type of land use within the municipality.[11] Alongside this was a total target load reduction percentage for each municipality. This created clear, actionable recommendations for municipalities by identifying which land uses were contributing to the current load, and how much that municipality needs to reduce its current load. Where specific outfalls were contributing to phosphorus loading in the watershed, Tables 3-17 provided specific WLAs for each one.[12] The current draft TMDL does not directly present this information. If that information is identifiable in the report, it would require a detailed analysis of the data and the geography of the identified impaired tributaries to determine the current and allocated loads from a given municipality. If the purpose of this TMDL is to guide remediation and protection, the lack of clear action plans or even identified target areas for municipalities renders the report inadequate for its goals.

The lack of distinction between WLA and LA is also a significant problem in light of the ongoing Residual Designation Authority ("RDA") permitting process. The RDA provides a valuable new tool for addressing nonpoint sources of pollution, and TMDL reports are a vital tool used by the EPA in identifying those sources. In presentations relating to RDA implementation, EPA has specifically identified TMDLs as a tool in the planned implementation of RDA permitting. This TMDL does not sufficiently identify the types of land use and specific geographic areas that would be addressed by the RDA permitting process.

[11] See Table 6-4, Final Phosphorus TMDL for the Lower Charles Basin, June 2007, pp. 106-07
[12] Final Phosphorus TMDL for the Lower Charles Basin, June 2007, p. 56

To address concerns related to the utility of the report in assisting towns, cities, and other actors in remediation, where feasible CRWA would like to see the following additions to Appendix P:

- Clear figures for current point and nonpoint source pathogen pollution, LAs and WLAs, and percent reductions required to meet those allocations are presented in a single table organized by municipality.
- Clear identification of land uses that contribute significantly to nonpoint source pollution organized by the municipality.
- Discussion of planned use of the TMDL in the RDA process.

Climate Change-Induced Weather Extremes as a Key Factor in Pathogen Pollution

More generally, CRWA recommends that the final Statewide Pathogen TMDL contain more consideration of climate change and the effects of extreme weather on pathogenic pollution. As MassDEP is aware, the Northeast has experienced the most significant increase in extreme storms in the United States.[13] References to climate change in the Draft Statewide Pathogen TMDL are minimal; while Section 5.10 addresses it, it does not discuss whether climate change and severe weather are expected to have effects on bacterial pollution levels.

Conclusion

The future of clean water in Massachusetts will rely on strong, enforceable bacterial TMDLs. To help create the strongest regulatory framework for pathogen pollution and address some of the concerns above, CRWA suggests that the final Statewide Pathogen TMDL:

- encourage data collection by non-profit or volunteer groups by directly including information in the document on data standards, submission procedures, and selection considerations;
- summarize past regulatory efforts and data selection considerations leading to the creation of the Statewide Pathogen TMDL to proactively address procedural questions about TMDL development[14]; and
- enable clearer paths toward pathogen pollution reduction in nearby impaired waterbodies for municipalities by suggesting WLAs or other means of allowing more targeted reduction efforts.

[13] https://nca2023.globalchange.gov/chapter/21/

[14] This would be particularly useful in cases like this one, where TMDLs are not being developed due to internal regulatory decisions to focus instead on developing TMDLs for new waterbodies rather than updating existing TMDLs.

CRWA is excited to continue to collaborate with MassDEP to develop protective standards for waterbodies in the Charles River watershed and throughout the state. We welcome any questions and look forward to reviewing the final Statewide Pathogen TMDL.

Respectfully,

Zeus Smith, Esq.
Associate Attorney, CRWA

Charles River Watershed Association
41 West Street, Floor 8 Boston, MA 02111 t 617 540 5650 www.crwa.org

8

MassDEP Response:

Timeliness of the Data and Sampling

Regarding the data in Appendix P, please refer to General Comments and Responses at the beginning of this section.

Clarification of the Selection Methodology

Please see General Approach in the General Comments and Responses above. The MA72-03 and MA72-04 assessment units are included in the Final Pathogen TMDL for the Charles River Watershed (MassDEP, 2007). These two segments were originally listed for fecal coliform. In the referenced Category 5 table on page 150 of the 2018/2020 Integrated Report (MassDEP, 2022b), MA72-03 and MA73-04 have "ATTAINS Action IDs" for Escherichia Coli (E. coli). When the pathogen criteria were updated, it was determined that the pathogen TMDL was protective of the E. coli criteria. Specifically, the Final Pathogen TMDL for the Charles River Watershed states:

> *"The Charles River Watershed pathogen TMDLs have been developed using fecal coliform as an indicator bacterium for fresh waters. Any changes in the Massachusetts pathogen water quality standard will apply to this TMDL at the time of the standard change. Massachusetts believes that the magnitude of indicator bacteria loading reductions outlined in this TMDL will be both necessary and sufficient to attain present WQS and any future modifications to the WQS for pathogens (MassDEP, 2007, page 4)."*

Since these segments are included in a USEPA-approved pathogen TMDL, these segments were not included in this statewide TMDL. These segments are listed as Category 5 because they remain impaired for other pollutants that do not yet have a TMDL.

To reiterate, assessment units that are already associated with a USEPA-approved pathogen TMDL are not included in this statewide TMDL. These TMDLs are still in effect. Assessment units that were listed as impaired for pathogens in the 2022 Integrated Report will be addressed in subsequent revisions to the statewide appendices.

Lack of Wet Weather Sampling and Absence of Seasonal Variation

MassDEP sampling is dependent on multiple factors, including logistics and staffing. Given the multiple competing sampling efforts in any given year, sampling is generally not scheduled based on expected weather (but sampling can be cancelled for extreme weather events). For more information, annual monitoring summaries since 2005 are available on the MassDEP webpage: https://www.mass.gov/lists/annual-monitoring-summaries. Water quality assessments for pathogens are dependent only on pathogen indicator bacteria counts and are independent of both flow and any weather characterizations. Pathogen impairments are identified using the statistical threshold value (STV) and rolling geomean criteria magnitudes for revised bacteria criteria in the Massachusetts Surface Water Quality Standards (314 CMR 4.00).

Inclusion of Community Partner Data

Please refer to the General Comments and Responses at the beginning of this section.

Thank you for your comment related to the bylaws in Appendix P. The appendix has been updated.

Lack of Actionable Goals for Municipalities

MassDEP recognizes that the waste load allocations and load allocations are described at the watershed level, which is an appropriate level. TMDLs can assign specific allocations to point and nonpoint sources where there is sufficient data. In the absence of data for detailed allocations, the

allocations can be aggregated. However, providing a comprehensive framework for coordinating individual actions is beyond the scope of this statewide TMDL. For each waterbody, estimates of the indicator bacteria reductions necessary to meet applicable requirements in the Massachusetts SWQS are provided. The targets established in the TMDL are based on the Massachusetts SWQS.

The eventual implementation of the TMDL will be made at the local level. MassDEP looks forward to working with municipalities and stakeholder organizations during the implementation process. A useful tool to promote TMDL implementation and to ensure eligibility for Clean Water Act section 319 grants, administered by MassDEP's NPS Management Section in the Watershed Planning Program, is a nine-element watershed-based plan. For more information see: https://www.mass.gov/info-details/nine-element-watershed-based-plans-information.

To aid local planning, MassDEP's TMDL Viewer will be updated to reflect areas covered by the Statewide Pathogen TMDL after the TMDL is finalized and USEPA-approved. The TMDL Viewer, which can be used as a tool for local decision makers when developing implementation strategies, can be found at this link:
https://www.mass.gov/info-details/total-maximum-daily-load-tmdl-viewer

Climate Change-Induced Weather Extremes as a Key Factor in Pathogen Pollution

Adaptive management is an appropriate strategy to address the impact and uncertainty associated with climate change. This approach recognizes that restoring polluted waters is a long-term process. For this reason, MassDEP supports an adaptive management approach to implementing a TMDL: taking the most cost-effective measures first, measuring their impact, and adjusting where necessary. Giving priority to projects with more immediate impacts on water quality will help communities adjust implementation steps if needed. Please also refer to General Comments and Responses: Implementation and Future Enforcement of the TMDL at the beginning of this section.

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25) Comments Received from Connecticut River Conservancy

15 Bank Row, Greenfield MA 01301 - (413) 772-2020 - ctriver.org
Connecticut River Conservancy

June 21, 2024

MassDEP
Watershed Planning Program
Attention: Timothy Fox
8 New Bond Street
Worcester, MA 01606

Re: Statewide Pathogen TMDL (CN 515.0) Comments

Dear Mr. Fox,

Thank you for the opportunity to comment on the draft Massachusetts Statewide Pathogen TMDL. Connecticut River Conservancy (CRC) is the watershed organization for the entire Connecticut River watershed which comprises portions of Massachusetts, Vermont, New Hampshire, and Connecticut. We restore and advocate for clean water, healthy habitats, and resilient communities to support a diverse and thriving watershed. One part of our work is conducting water quality monitoring every summer from June to September during the recreational season. Our water quality monitoring specifically focuses on *E. coli* bacteria to provide weekly health and safety information, publicly accessible online (ctriver.org/isitclean), to recreational users of the Connecticut River and its tributaries. CRC was fortunate to be the recipient of MassDEP Water Quality Monitoring Grant for several years including FY19, FY20, FY23, and FY24 which has supported our ability to keep an up-to-date, approved Quality Assurance Project Plan (QAPP) on file with MassDEP and submit the data we have collected from the Connecticut River, Deerfield River, and Chicopee River basins to MassDEP through the Environmental Protection Agency's Water Quality Exchange (WQX) Database.

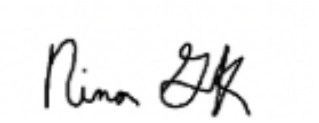
We have reviewed the Pathogen TMDL and we appreciate the tremendous effort and analysis the agency has done to produce this extensive document, including the GIS data and local information included in each watershed appendix.

Our primary concern with this draft TMDL is that it relies primarily on old data. For most of the segments included in the appendices (C-G) that fall within our watershed and within the areas for which we collect pathogen data and submit it to MassDEP via WQX, no data newer than 2014 and no data collected and submitted by CRC was included in the report. One segment, the Mill River in Northampton (MA34-28) included the data collected and submitted by CRC from 2012-2019, although data after 2019 has also been submitted to DEP for that river segment. We do not understand why this latest draft TMDL does not include new data. MassDEP did already use our newer data in the 2022 Integrated List of Waters. In fact, our data was used in the 2022 Integrated List of Waters to delist segment MA33-03 of the Deerfield River as impaired for *E. coli* bacteria and yet that segment is still considered impaired and included in this draft TMDL. It feels unacceptable to us that new data has not been used for this draft TMDL without any explanation. If there is a specific reason why new data was not used, then we recommend that DEP communicate that to us and to the public, directly naming why new data sets are not used to support the new TMDLs. We are readily available and want to help collaborate in this process in any way that we can be helpful.

Another concern we have is around enforcement. It is not clear to us how the maximum allowable loads will be implemented or enforced, nor what will happen if TMDLs are not met. What will be done if pollution sources are identified that exceed the allowable load? Are there immediate actions that need to be taken or financial consequences for exceedance? We recommend that DEP include an enforcement and management plan and guidelines for mitigating a TMDL exceedance.

We appreciate your focus on moving this TMDL forward and thank you for considering these comments. Please contact Ryan O'Donnell, Water Quality Monitoring Coordinator at rodonnell@ctriver.org or Nina Gordon-Kirsch, Massachusetts River Steward at ngordonkirsch@ctriver.org with any questions.

Sincerely,



Nina Gordon-Kirsch
Massachusetts River Steward
Connecticut River Conservancy

Ryan O'Donnell
Water Quality Monitoring Coordinator
Connecticut River Conservancy

MassDEP Response:

Thank you for your comments. Please refer to General Comments and Responses at the beginning of this section. Current data may show that a waterbody is meeting applicable requirements in the Massachusetts Surface Water Quality Standards (314 CMR 4.00). Due to the timing of the TMDL development and the 2022 Integrated Report, the Deerfield River segment MA33-03 effectively becomes a protective TMDL and will remain as such. This will prevent the waterbody from being listed as impaired at a future date. No remediation is needed for this segment at this time; however, measures should remain in place to maintain the quality of the water. Please also see Sections 5 and 7 of the TMDL for information on implementation, financial resources, and other tools to restore water quality.

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26) Comments Received From the Massachusetts River Alliance

MASSACHUSETTS
Rivers Alliance
11 Curtis Avenue, Somerville, MA 02144
617-714-4272 • massriversalliance.org

June 21, 2024

Timothy Fox
Massachusetts Department of Environmental Protection
Watershed Planning Program
8 New Bond Street
Worcester, MA 01606

Dear Mr. Fox,

Thank you for the opportunity to comment on the draft statewide pathogen TMDL. The Massachusetts Rivers Alliance is a statewide organization with 86 member groups dedicated to protecting and restoring the rivers and streams of the Commonwealth.

We are glad to see MassDEP update this TMDL, and we appreciate the extensive analysis the agency has done to produce it, particularly the GIS data and other local information in each watershed appendix.

Our primary concern with this draft TMDL is its use of very old data. For a document that is meant to be an "update," many watershed assessments are relying on data that is over a decade old. There is likewise little mention of climate change in this draft TMDL, a driving force behind changes in local weather patterns that impact how pathogens are carried into waterways. We hope that MassDEP will use more recent watershed data in tandem with modern precipitation data.

The reliance on old data highlights an ongoing concern among watershed associations about how MassDEP is using external partner data. Many of our member organizations have submitted more recent data to MassDEP, some using funding from MassDEP's water quality monitoring grants, and do not see that data reflected in this document. Some have not received confirmation from MassDEP that their data has been approved, or any reason why their data is insufficient, and if they do, it is years later in some cases. Several of these organizations will be submitting their own comments to MassDEP this week. These organizations spend significant time and resources in collecting this data, and want to support accurate scientific assessments of their rivers. If MassDEP's criteria

1

for external data has changed, or if your staff have concerns with the external data that's being submitted, please communicate that to partner organizations so that they can contribute their local expertise to the TMDL process. These groups are eager to collaborate with agency staff to ensure a smooth and high-quality data process for both parties. Discussion of this process would fit well in the "Public Participation" section of the draft TMDL, which is currently empty.

Finally, this update would be most helpful in context with past pathogen TMDLs. We request that MassDEP put this draft TMDL in the same document as existing pathogen TMDLs for other watershed segments so that reviewers may better understand the full picture of each watershed. Reviewers would also benefit from a clickable Table of Contents for each watershed appendix.

Thank you for your time and consideration of these comments.

Sincerely,

Katharine Lange
Policy Director
Massachusetts Rivers Alliance
katharinelange@massriversalliance.org

MassDEP Response:

Thank you for your comments. Regarding the age of the data, use of external data, and general approach, please refer to General Comments and Responses at the beginning of this section. A clickable table of contents has been added to each appendix.

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27) Comments Received From the Neponset River Watershed Association

neponset river
WATERSHED ASSOCIATION

Bonnie Heiple, Commissioner
Massachusetts Department of Environmental Protection
100 Cambridge Street, Suite 900
Boston, MA 02114

RE: Statewide Pathogen TMDL (CN 515.0)

Dear Commissioner Heiple:

The Neponset River Watershed Association is a member-supported nonprofit organization dedicated to the improvement and protection of the Neponset River and its watershed. Included in that mission is a commitment to supporting resilience efforts throughout the region. It is with this mission in mind that we submit these comments on MassDEP's proposed *Massachusetts Statewide Total Maximum Daily Load (TMDL) for Pathogen-Impaired Waterbodies*.

Overall, NepRWA is pleased to see that MassDEP has prioritized the creation of a statewide pathogen TMDL and has plans to provide regular updates along with the biannual Integrated List of Waters. The shared language on the development and calculations for the TMDL is useful to avoid a fragmented approach to what is truly a regional and systemic issue. Additionally, the watershed specific appendices make it easy to drill down into specific waterbody issues, including subwatershed analyses and reviews of potential issues of concern. We also appreciate seeing that the other appendices take advantage of external data to extend the reach of DEP's Watershed Planning Program's internal sampling.

NepRWA is concerned about some of the data used and omitted from the proposal, undercutting the effectiveness of the TMDL. Specifically, we urge MassDEP to consider the following:

Timeliness of Data

The first significant issue is the timeliness of data included in the development of the TMDL. It appears that no data after 2018 was used in the creation of watershed specific TMDLs. In the case of the Neponset, the relevant cited data is limited to a single year's collection in 2009. This leads to a meaningful disconnect between the most accurate data from the biannual Integrated List of Waters, creating unnecessary confusion and inaccuracies.

2173 Washington Street, Canton, MA 02021
781.575.0354 | staff@neponset.org | www.neponset.org

In particular, the Neponset River Watershed Association has submitted data on Steep Hill Brook (MA73-18) for decades, with *E. coli* data deemed "assessment quality" in the years 2008-2014 per a 2016 review, and biannually since then. It is unclear therefore why these data were not included in the assessment of Steep Hill Brook for the TMDL. Given that these data were deemed assessment grade, MassDEP should explain the reasons for their omission. Similarly, NepRWA has provided data on the Plantingfield Brook (MA73-23) between 2019 and 2022, demonstrating E. coli impairment.

Additional Information and Enforcement

While significant and detailed geographic analysis has been done for each listed waterbody, we urge MassDEP not to miss the opportunity to include more detailed information from USGS's StreamStats application. Additional information includes total miles of roadway within the subwatershed, number of road crossings per reach segment, and estimated base and peak flows for contextualizing load calculations.

While the proposed TMDL provides some clear resources, including explanations of TMDL development and waterbody-specific target goals, there is no clear mechanism by which the TMDL will promote better enforcement or attainment of the stated load goals. Given the calculation of each waterbody by MS4 permit area and individual municipality, it seems that it would be within the scope of this document to create municipal specific load targets, which could then be more easily tracked for improvement and implementation. This would bring the document closer in line to MS4 permit requirements for municipalities and make clearer what responsibilities fall under which local government purview.

Missing Information and Utility

The "Public Engagement" section of the TMDL is blank and it is unclear what is meant to be captured in this section. We would encourage the use of this space as a repository of questions and comments received and answered, to both act as an FAQ and provide some transparency to the process. Additionally, some best practices or examples that municipalities could follow for effective outreach around pollutants would be especially helpful.

Finally, there are additional ease-of-use functions that could be added to a final digital document, including a clickable table of contents to more easily navigate the report.

Future work

While beyond the scope of this document, which we note does not affect existing TMDLs, the statewide approach used here has clear benefits. We are curious whether future issuances of the statewide TMDL could incorporate all active TMDLs into one unified document (making sure not to ease any pollutant load requirements already in place through a TMDL), providing a clear central resource for all state, local, and non-governmental actors to refer to while pursuing improved water quality.

Conclusion

We applaud MassDEP for the work it has done to put this TMDL together. While we believe some additional information and some corrections (such as inclusion of additional impaired waters) would make this a stronger and more useful document in the protection of our critical water resources, it is clear that MassDEP has put significant effort into this approach. The Neponset River Watershed Association has a long history of working productively with MassDEP, including

by collecting useful pathogen concentration data for imperiled streams, and we hope that the TMDL can reflect the best and most up-to-date information possible.

Thank you for the considerable time and effort the agency has invested in creating this TMDL so far. We look forward to continuing to work together to protect Massachusetts' rivers, ecosystems, and communities from the impacts of climate change.

Sincerely,

Kerry Snyder
Managing Dir. for Community Resilience

Page 3 of 3

MassDEP Response:

Timeliness of Data

Please refer to General Comments and Responses at the beginning of this section.

Additional Information and Enforcement

Please refer to General Comments and Responses at the beginning of this section.

Missing Information and Utility

Please refer to General Comments and Responses at the beginning of this section. MassDEP intends this Response to Comments appendix to serve as the Frequently Asked Questions (FAQ) repository you have requested. Including a thorough documentation of comments received and MassDEP responses in the final TMDL report is the process for all MassDEP TMDLs. For examples of best practices for outreach please refer to the Watershed Planning Program's Nonpoint Source Management webpage:

https://www.mass.gov/info-details/nonpoint-source-pollution#tools-for-managing-nonpoint-source-pollution-

Future Work

Please see the General Comments and Responses at the beginning of this section.

28) Comments Received From OARS for the Sudburry and Assabet & Concord Rivers

OARS
FOR THE SUDBURY ASSABET & CONCORD RIVERS
23 Bradford Street • Concord, MA 01742
978 • 369 • 3956
office@oars3rivers.org
oars3rivers.org

June 6, 2024

MassDEP
Watershed Planning Program
Attention: Timothy Fox
8 New Bond Street
Worcester, MA 01606

Re: Statewide Pathogen TMDL (CN 515.0) Comments

Dear Mr. Fox,

OARS appreciates the opportunity to comment on the draft Massachusetts Statewide Pathogen TMDL. OARS is the watershed organization for the Concord basin, comprising the Sudbury, Assabet, and Concord rivers in a 400-square mile area west of Boston. A nonprofit organization founded in 1986, OARS works primarily through science-based advocacy and education to develop a scientific understanding of the causes of river degradation and works with communities to seek effective solutions. Its mission is "to protect, improve and preserve the Sudbury, Assabet, and Concord Rivers, their tributaries and watersheds, for public recreation, water supply, and wildlife habitat." We have a long-term quality-controlled water quality monitoring program and annually provide our data to the EPA and MassDEP through the EPA's WQX data portal.

We reviewed the draft Pathogen TMDL documentation, and we are very pleased that MassDEP is taking this step to formalize standards and goals for pathogens in surface waters. We have the following comments about some of the TMDL details:

- **Timeliness of Data** - The fact that the TMDL document and supporting appendices are based on old data (2018/2020 Integrated List or older) is quite unsatisfactory. This means that most of the data cited is outdated and unreliable. OARS puts a lot of care into providing quality-controlled *E. coli* monitoring data to MassDEP every year. However, the 2018/2020 Integrated List did not include any OARS data after 2017, and OARS' *E. coli* monitoring program only started in 2019. We have submitted to MassDEP five years of high-frequency *E. coli* data from around the watershed from 2019-2023, but none of it has been included in this TMDL document. These data should be included. Some of our E. coli data directly contradict the status of impairments listed in Appendix T:
    - The Concord River segment MA82A-07 is listed as being impaired for pathogens. However, this impairment listing is based on only five samples that were collected in 2006. OARS has collected 63 samples between 2019 and 2023 at the locations W1483 and W1484. Out of all 63 samples, none have exceeded the EPA's BAV of 235 CFU/100ml, and the geometric mean of the full set of results is only 30 CFU/100ml. This segment should not be listed as impaired.
- **Wildlife** – The sections on Wildlife Waste (3.2.4 and 5.8) do not mention beavers. In OARS' pathogen source-tracking research, we have found through DNA analysis that beavers often have a much larger presence in surface water DNA counts than birds or dogs. It would improve the TMDL if it included some guidance on how to think about beavers' role in pathogen pollution.
- **Basemap** - It is not clear why the basemap (Appendix T, Figure 2-1) does not show all continuous river segments. The impaired segments are highlighted in red. Some of the

unimpaired segments are highlighted in blue, but it is not clear why many other unimpaired segments are not depicted at all, including some segments of the mainstem Sudbury, Assabet, and Concord rivers (e.g., MA82A-08). This is confusing. We recommend that all unimpaired segments be highlighted in blue.

- **Table of Contents** - Please add clickable tables of contents to the appendix documents so that it is easier to navigate to individual waterbodies.
- **Enforcement** – This document is a very thorough analysis of how each waterbody stands regarding the standards for pathogen impairment, but it is not clear how these maximum allowable loads will be implemented or enforced. Will there be a mechanism for forcing municipalities to eliminate pollution sources if it is identified that they are exceeding the allowable load?
- **Watershed association monitoring** – In section 6 (Monitoring Plan) there is a list of organizations involved in water quality monitoring. Monitoring by volunteers through watershed associations is listed as the last item, giving the impression that this is the least significant group. Based on our observation, watershed groups are the primary and most active type of organization conducting water quality monitoring for pathogens in Massachusetts. It would be much more accurate and considerate to put them at the top of the list.
- **Additional monitoring** – OARS would like to do more pathogen monitoring in more locations around the watershed and do more source-tracking studies to identify pollution sources. We can leverage volunteer citizen scientists for the monitoring legwork, but we are limited by funding for staff time and lab expenses. This draft TMDL highlights many waterbodies with pathogen concerns based on old data. MassDEP has provided funding in past years, but it has been limited in amount and availability dates. Could MassDEP provide more funding to support monitoring to collect new data for these waterbodies that have not been monitored for many years?

We appreciate your focus on moving this TMDL forward and thank you for considering these comments. Please contact us if you have any questions.

Sincerely,

Benjamen Wetherill
OARS Staff Scientist

CC: Massachusetts Rivers Alliance

MassDEP Response:

Timeliness of Data

Please refer to General Comments and Responses at the beginning of this section. MassDEP appreciates the effort OARS has made to submit quality assured data to use in assessing water quality in the Concord River basin. The data will be used in a future Integrated Report to provide information on water quality status. Once USEPA approves a TMDL, subsequent water quality assessments that indicate attainment of applicable water quality criteria in the Massachusetts Surface Water Quality Standards (314 CMR 4.00) would result in the bacteria cause of impairment being removed. The TMDL would then be protective, which would prevent the waterbody from being listed again and requiring a TMDL. For this reason, the TMDL will remain for MA82A-08.

Wildlife

The Wildlife section includes a mention of mammals, which is intended to include bacteria associated with beavers, ground hogs, squirrels and other mammals. Future TMDL implementation efforts and delisting decisions may involve studies of specific wildlife contributions. However, if indicator bacteria show that a waterbody is not meeting applicable requirements established in the Massachusetts SWQS, the waterbody is still considered impaired for pathogens regardless of the source bacteria.

Basemap

Thank you for your comment. Figure 2-1 in Appendix T has been updated.

Table of Contents

Thank you for your comment. A clickable table of contents was added to all the appendices.

Enforcement

Please refer to General Comments and Responses at the beginning of this section.

Watershed associated monitoring

MassDEP agrees that water quality monitoring by volunteers is an important source of pathogen data in the Commonwealth of Massachusetts. The order that agencies and organizations involved in water quality monitoring are presented is not meant to insinuate that volunteer monitoring is less important.

Additional monitoring

The Nonpoint Source Management Section in MassDEP's Watershed Planning Program administers two grant programs to address nonpoint source pollution: the Clean Water Act (CWA) Section 604(b) Water Quality Management Planning Grant and the CWA Section 319 Nonpoint Source Implementation Grant. The CWA Section 604(b) Water Quality Management Planning Grant can be used to fund water quality monitoring efforts that aim to determine the nature, extent and causes of water quality impairments and to develop plans to restore water quality in impaired waters. More information about the 604(b) grant program and other funding sources can be found here:
https://www.mass.gov/info-details/grants-financial-assistance-watersheds-water-quality

Please also refer to the response to Comment 7 above.

29) Comments Received From OARS for the Pioneer Valley Planning Commission

Catalyst for Regional Progress
PVPC
Kimberly H. Robinson, MUP
Executive Director

June 20, 2024

Mr. Timothy Fox, TMDL Analyst, Watershed Planning Program
Massachusetts Department of Environmental Protection
Delivered as directed via e-mail: Timothy.M.Fox@mass.gov

Re: Draft MA Statewide TMDL for Pathogen Impaired Waters_2024_03_25

Dear Mr. Fox:

Thank you very much for the work by your MassDEP team in pulling together the information and data for the draft TMDL for pathogen impaired waters document. The document reflects tremendous effort with good detail on segments and the controls already in place toward clean water in the Commonwealth's communities.

There are four major basins within the Pioneer Valley included in the draft TMDL: Connecticut River, Chicopee River, Westfield River, and Quaboag River. Among our municipalities located within watersheds of pathogen impaired waters, many are regulated under the EPA and MassDEP MS4 permit, and three continue to struggle with addressing the legacy of combined sewer infrastructure.

While establishing budgets for pollutant loading to our rivers and streams may be important to achieving clean water standards, I am concerned that there has been insufficient notice and conversation around the nature of this new program in Massachusetts and the implications for communities. The timing in issuing the draft TMDL document also overlapped with major efforts already under way to review, understand, and comment on the new draft stormwater regulations and handbook. Those knowledgeable on water quality issues understandably had attention focused elsewhere.

Our sense is that many who are essential to helping meet the draft TMDL objectives have no idea about this document and the new program. As such, PVPC highly recommends a few important adjustments in rolling out this new program in Massachusetts:

- Extend the deadline for comments on the draft TMDL document.
- Advance a far more robust conversation around the program so that key actors are aware of the role they will need to play and can make meaningful comments on the draft document.
- Host a public session on the draft TMDL in Western Massachusetts (I understand there have been sessions in central and southeastern parts of the state, but nothing out this way).

Thank you for your consideration of PVPC's comments.

Sincerely,

Kimberly H. Robinson

cc: Michael Gorski – MassDEP WERO Regional Director, Michael.Gorski@mass.gov
Saadi Motamedi MassDEP WERO Acting Director Water Resources, Saadi.Motamedi@mass.gov

Pioneer Valley Planning Commission 60 Congress Street, Springfield, MA 01104-3419
phone 413.781.6045 fax 413.732.2593 TTY 413.781.7168 www.pvpc.org

MassDEP response

Thank you for your comments. In response to your questions about the deadline extension, public engagement, and additional public information sessions, please refer to General Comments and Responses at the beginning of this section.

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30) Comments Received From Massachusetts Coalition for Water Reources Stewardship

MCWRS
Massachusetts Coalition for
Water Resources Stewardship

June 21, 2024

MassDEP
Watershed Planning Program
Attention: Timothy Fox
8 New Bond Street
Worcester, MA 01606

Via email to: Timothy.M.Fox@mass.gov

RE: Statewide Pathogen TMDL (CN 515.0) Comments

Dear Mr. Fox:

The Massachusetts Coalition for Water Resources Stewardship (MCWRS) is a non-profit organization representing the interests of municipalities, districts and commissions in the world of wastewater, stormwater and drinking water. Members include municipalities, wastewater, stormwater and drinking water utilities, engineering consultants, legal firms and stormwater coalitions.

MCWRS is pleased to provide the following comments on the draft Statewide Pathogen TMDL. Thank you for providing the opportunity to weigh in on this important document.

1. It is unclear as to the value of describing the TMDL in terms of a pollutant load in number of bacteria per day. MCWRS is not aware of anyone using a daily load for bacteria to describe conditions in a waterway. The TMDL concentration is the water quality standard at the point of discharge. The inclusion of the bacteria loading in CFU/day as described in section 4.2.2 only confuses things and fails to produce metrics that are of value to infrastructure managers, river advocates or the general public.

2. The Fact Sheet states, "This TMDL will be implemented through an iterative process that will require *establishing realistic goals*, source identification, and mitigation." The document then goes on to suggest many unrealistic goals. Expecting all urban stormwater to meet bathing beach standards for microbes at the point of discharge defies achievable operational and treatment practices. Calling for the elimination of CSOs in all river segments that currently receive CSO discharges is also grossly unrealistic unless the Commonwealth plans to provide tens of billions of dollars in grants to the 19 CSO communities to help make this happen.

c/o Regina Villa Associates | 20 Park Plaza, Suite 801 | Boston, MA 02116
(617) 357-5772 | www.mcwrs.org | info@mcwrs.org

Indeed, Section 5.3 of the TMDL recognizes this, with reference to the CDM study of the Merrimack River. "The CDM study of the Merrimack River suggests that CSO abatement on its own would not eliminate violations of the SWQS in the river's mainstem. Most of the river from Manchester, NH to downstream of Haverhill, MA would still exceed SWQS more than 10% of the time. According to the CDM study, CSO control plans with full separation of sewers in each city would only yield slight additional improvements..." This very real funding constraint aside, the associated work schedule required to meet these standards would be decades if not longer. As has been learned from the current MS4 General Permit, efforts required to meet TMDLs have already introduced major operational and budgetary challenges for municipal compliance. Having a TMDL with unrealistic expectations will not help advance further improvements in the water quality of our rivers but will only assure non-compliance for municipalities and promote unproductive conflict between these municipalities, regulators and river advocates.

3. Section 4.3, Margin of Safety, makes clear that the TMDLs do not consider dilution in the receiving water, nor do they consider in-stream processes such as bacteria die-off and settling which are known to reduce in-stream indicator bacteria concentrations. This assures that the TMDL applying indicator bacteria standards at the point of outfall is an unscientific and unreasonable approach. There are many tools available for calculating river flows and dilution factors. There are also numerous studies in scientific literature which can be used to support die-off rates for bacteria. The best available science must be used for TMDL development and that does not appear to be the case with the draft Pathogen TMDL.

4. Throughout the document and its appendices, CSOs are noted as being the highest priority source of pathogens and that CSOs "must be eliminated". As previously noted, such a proposition cannot occur without an enormous input of federal and state grant money to municipalities with combined sewers and unintended consequences. The federal and state approach to CSOs has historically been based on incremental advancement of attainable techniques to reduce the occurrence and volume of CSOs. The toolbox for CSO control includes combined sewer separation where feasible along with stormwater flow reductions and discharge treatment when applicable. That approach has been very effective in reducing CSOs from pre-Clean Water Act days to today. Every CSO community has made considerable investments in CSO control under their NPDES permits and has successfully reduced the volume and occurrence of CSOs. The TMDL should call for continuing efforts to further control and/or reduce the impact of CSOs and more federal and state grants to make this happen. It should not be making the unrealistic demand to eliminate all CSOs without resources in place to make this happen. See again the TMDL's Section 5.3 reference to the CDM studies. "Implementing CSO discharge controls (Phase I and certain high priority Phase II), as well as non-CSO stormwater conveyance controls, fixing illicit connections and failing infrastructure, and developing septic system maintenance programs would be necessary to significantly reduce the total number of indicator bacteria violation days (CDM, 2004; CDM Smith, 2017; CDM, 2006)." The unintended consequences of CSO elimination also cannot be overlooked. CSOs are designed to provide relief to the sewer system during extreme events so combined sewage does not flood streets and basements. With climate change and more intense rain events these relief valves are critical. In addition, in urban areas, stormwater contains pathogens. Combined systems in these areas which collect and convey the first flush from urban streets to the treatment system under smaller storm events can be beneficial to the environment.

5. The TMDLs for individual river segments include a summary of local management efforts. These sections appear very limited to items found on municipal websites and do a disservice to communities by understating the expenditures and efforts undertaken using public funds. Perhaps more outreach is needed to communities asking for a compilation of tasks undertaken to reduce pathogen levels in waters rather than relying upon a simple review of websites and postings of bylaws.

c/o Regina Villa Associates | 51 Franklin Street, Suite 400 | Boston, MA 02110-1301
(617) 357-5772 | www.mcwrs.org | info@mcwrs.org

6. Much of the data used in the individual river segment analysis is outdated. Bacteria test results from 2008 are often cited. This information is 16 years old and relying upon it to form an opinion of river health today fails to consider almost two decades of improvements to the management of regulated MS4 stormwater systems and the work and upgrades to numerous wastewater systems and treatment plants that have had positive impacts. All reports will inevitably rely on data from the past but more recent data must be used for TMDL development. MassDEP needs to develop a system to update test results with new data in a more rapid fashion so that TMDLs can become "living documents", continuously being refined as more recent information is obtained.

7. In some cases, the data provided fails to support the argument for impaired water. For example, in Connecticut River segment MA34-05, it is noted that 53 CSOs discharge to the segment. But the 2008 sampling data, consisting of five samples, found only one geometric mean exceedance of the E. coli standard and a maximum level of 260 E. coli/100mls, which is within the Statistical Threshold Value for E. coli. The text explains that this segment is under a presumptive impairment because of the CSOs, despite actual data showing microbial water quality being fairly reasonable for an urban stretch of a large river. Much of the data in Table 8 of the Statewide TMDL similarly fails to show that CSOs are inherently the main source of wet weather pathogens. This is another example of an unscientific approach to TMDL development. Data is everything and the data must be followed and be relatively current to prove impairment.

8. On page 27 of the Statewide TMDL, the first full paragraph states, "For segments with maximum indicator bacteria concentrations during dry weather, sources such as permitted discharges, failing septic systems, CSOs, illicit sanitary sewers connected to storm drains, and/or leaking sewers may be the primary contributors." CSOs are prohibited during dry weather and rarely occur, other than due to a catastrophic system failure. CSOs would not be a source of dry weather pathogens and should be removed from this list.

MCWRS finds that the Draft Statewide Pathogen TMDL is lacking in many critical aspects. Most importantly it falls short of "best available science" in many ways, ignores the potential results of the significant improvements made in stormwater and wastewater management in the past decade, and does not meet at least one of its stated objectives of establishing realistic goals. MassDEP should significantly rework the document to address these concerns and re-issue another draft for public review. MCWRS also encourages the agency to work more closely with municipal water infrastructure operators and their consultants to gain a better perspective of what has been accomplished and what can be done going forward.

Thank you for your consideration.

Sincerely,

Philip D. Guerin
President

Massachusetts Coalition for Water Resources Stewardship
c/o Regina Villa Associates | 51 Franklin Street, Suite 400 | Boston, MA 02110-1301
(617) 357-5772 | www.mcwrs.org | info@mcwrs.org

MassDEP Response:

1) Describing the TMDL in Terms of a Pollutant Load

This TMDL includes two types of pathogen TMDL targets: concentration and numerical load. This method is consistent with previous USEPA-approved pathogen TMDLs, including the Final Pathogen TMDL for the Boston Harbor, Weymouth-Weir, and Mystic Watersheds (MassDEP, 2018). Expressing a TMDL in terms of indicator bacteria concentrations based on applicable water quality criteria established in the Massachusetts Surface Water Quality Standards (314 CMR 4.00), as shown in Table 6 of the TMDL report, provides a clear expression of water quality goals. Concentration targets for indicator bacteria are also the primary guide for implementation (see Section 5 of the TMDL core document). As required under the federal CWA, the TMDL is also expressed in terms of indicator bacteria daily load or the number of organisms per day (CFU/day).

The expectation to attain applicable water quality standards in the Massachusetts SWQS at the point of discharge is conservative, and thus protective, and offers a practical means to identify and evaluate the effectiveness of control measures. In addition, this approach establishes clear objectives that can be easily understood by the public and individuals responsible for monitoring activities. While it is the goal of the TMDL to meet water quality standards at the point of discharge, compliance with the Massachusetts SWQS is judged by in-stream measurements. For instance, in an extreme case, it could be possible for a community to meet water quality standards in their storm drains and yet still be responsible for reducing the impacts of overland runoff if the in-stream concentrations of bacteria are not in compliance with the Massachusetts SWQS. Compliance is therefore determined by the concentrations in the ambient water, regardless of how the TMDL is expressed.

2) Establishing Realistic Goals

The targets established in the TMDL are based on the Massachusetts SWQS. For more information, please see the following technical document: Surface Water Quality Criteria for Bacteria: Implementation Guidance for the Protection of Human Health in Waters Designated for Primary Contact Recreation, which can be found on the Massachusetts Surface Water Quality Standards webpage: https://www.mass.gov/doc/bacteria-surface-water-quality-criteria-for-bacteria-implementation-guidance-for-the-protection-of-human-health-in-waters-designated-for-primary-contact-recreation-cn-5630/download

While reducing bacteria concentrations in stormwater and eliminating CSOs are stated goals in the TMDL, compliance with the Massachusetts SWQS is evaluated using in-stream measurements. The TMDL does not specify a schedule or timeline for restoration. MassDEP supports an adaptive management approach, where implementation mechanisms and controls are periodically evaluated and adjusted as necessary to protect water quality. Concentration-based waste load allocations and load allocations for stormwater discharges (Table 6 of the TMDL core document) are expected to be achieved through implementation of structural and non-structural best management practices, source reductions, and other controls to the maximum extent practicable. Towns are encouraged to apply adaptive management and implement comprehensive wastewater planning strategies to address water quality issues.

Additionally, USEPA developed an integrated planning framework to help address some of the concerns raised regarding budgetary constraints, competing priorities, schedules and municipal compliance. An integrated plan is a process that identifies efficiencies from separate wastewater and stormwater programs to best prioritize capital investments and achieve our human health and water quality objectives. More information can be found on USEPA's website. https://www.epa.gov/npdes/integrated-planning-municipal-stormwater-and-wastewater

3) The Margin of Safety

TMDLs are required to utilize a "Margin of Safety" (MOS) into the total load reduction calculations. The MOS accounts for the lack of certainty in the data used to in the study. USEPA guidelines state that the MOS can be explicit or implicit. An explicit MOS is usually expressed as a percentage of the total load reduction. An implicit MOS is implemented by using conservative assumptions. This TMDL utilizes an implicit MOS as described in section 4.3 of the core document. This conservative assumption will help ensure that applicable water quality criteria established in the Massachusetts SWQS are met when the TMDL is implemented.

4) Controlling and Mitigating CSOs vs. Eliminating CSOs

The TMDL recognizes that controlling CSOs via structural and non-structural improvements is essential to mitigating pollution from CSOs. However, the elimination or mitigation of CSOs remains a long-term objective. The Implementation section of the TMDL core document specifically states that:

> *"CSOs and stormwater runoff represent major sources of pathogens to the Commonwealth's rivers, and the current level of control is inadequate for applicable criteria established in the Massachusetts SWQS to be attained. Improving stormwater runoff quality is essential for restoring water quality and recreational uses. At a minimum and as required under the MS4 General Permit for applicable Phase I and Phase II communities, intensive application of non-structural BMPs is needed throughout Massachusetts to reduce pathogen loadings as well as loadings of other stormwater pollutants (e.g., nutrients and sediment) contributing to use impairment in Massachusetts' waterbodies. Depending on the degree of success of the non-structural stormwater BMP program, structural controls may become necessary."*

MassDEP recognizes that local communities have dedicated enormous amounts of financial resources to restoring water quality in the Commonwealth. MassDEP will continue to work with local governments and environmental groups to further reduce both point and nonpoint source pollution.

5) Summary of Local Management Efforts

MassDEP recognizes that the summaries of local management efforts are not exhaustive. This is not meant to ignore specific expenditures and efforts undertaken using public funds. Absent any specific recommended updates on local management efforts, we could not update the document.

6) Outdated Data

Please refer to General Comments and Responses at the beginning of this section.

7) Data Provided Fails to Support the argument for Impaired Water

Waterbodies that receive runoff from CSOs have a high probability of exceeding bacteria criteria established in the Massachusetts SWQS and are likely to increase the risk to human health. The assessment methodology for these waterbodies is described in the Massachusetts Consolidated Assessment and Listing Methodology (CALM) Guidance Manual for the 2022 Integrated Report (MassDEP, 2022a)*. See especially pages 62,63, 67,69.*

8) CSOs Being Considered a Risk During dry Weather

The text has been updated.

31) Comments Received From the Dartmouth Massachusetts Department of Public Works

D A R T M O U T H M A S S A C H U S E T T S

DEPARTMENT OF PUBLIC WORKS
Director
Timothy J. Barber

BOARD OF PUBLIC WORKS
Robert Almy.
Richard Alves, Jr., P.E.
Ronald Labelle

June 21, 2024

Watershed Planning Program
Attention: Timothy Fox
8 New Bond Street
Worcester, MA 01606

Sent by email

Subject: Statewide Pathogen TMDL (CN 515.0) Comments

The Board of Public Works offers the following comments on the draft Statewide Pathogen TMDL (CN 515.0). First, inadequate noticing was provided for this critical process. As apolitical subdivision of the Commonwealth responsible for a wide range of public services, the Town of Dartmouth should have received notice of the availability of the draft document and its related comment period. Lacking such notice, the Department of Public Works and other Town agencies were only informed of this process by outside parties and were forced to request an extension of time to prepare these comments. As such we have been unable to adequately inform and engage our residents and all relevant Town interests.

Our review has focused on the proposed "draft Massachusetts Statewide Total Maximum Daily Load for Pathogen-Impaired Waterbodies" and Appendix Z which contains outdated water quality data and description information on the Paskamanset and Shingle Island Rivers. These two rivers are mainly within the Town of Dartmouth and their chemical and physical characteristics, as well as their uses, are well known to the Town and the Public Works Department.

Our review of the materials suggests that the area covered and number of waterbodies in the proposed TMDL is excessive for a single regulatory action, and that the proposed action and implementation are inadequately discussed. Specifically, nowhere in the public facing materials for this process does it specify what agency will approve the TMDL, what the specific action will be, and what opportunities are available to challenge or correct errors in the proposed action. This process suggests the DEP will somehow impose TMDL related regulatory requirements on over 200 stream reaches throughout the Commonwealth in one action. There is no discussion of subsequent actions so there is no explanation of how DEP proposes to set priority for implementation and/or enforcement. From our perspective, the draft TMDL document and descriptions of the Paskamanset and Shingle Island Rivers are wholly inadequate for the adoption or implementation of a pathogen TMDL. The proposed action is of statewide scope

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and we suspect that other water body descriptions may be inadequate based on our review of Appendix Z. We conclude this is an opaque process that is both arbitrary and capricious.

Our review of Appendix Z finds that the water quality data for the Paskamanset and Shingle Island Rivers are from samples taken in 2005 and 2013, thus are woefully outdated. In addition, no information is presented as to sampling methodology, sample-site conditions (e.g. antecedent weather and flow), qualification of the sampler(s), and chain of custody. No duplicate samples are reported thus the statistical analysis of such a limited number of samples is questionable, especially for comparison to numerical standards and possible enforcement action.

The description of the two local watersheds contained in Appendix Z is out of date. The Town has adopted planning documents, adopted a new storm water bylaw, acquired open space as watershed protection areas, seen changes in land use, as well as observed the rebuilding of stormwater facilities along State Route 6. None of these actions are mentioned in Appendix Z. Therefore, we believe the description of both watersheds is inadequate for adoption of any TMDL. DEP must update and expand the water quality data and make current discussions of land use and local regulations in both watersheds before further consideration of a pathogen TMDL.

As general guidance, the "draft Massachusetts Statewide Total Maximum Daily Load for Pathogen-Impaired Waterbodies" document contains an overview of pathogen TMDL issues and mitigation measures, with the exception of Section 8 (Public Involvement), which contains no text. The general nature of the document precludes its use as a regulatory document. As such it may be useful for screening specific issues and potential measures for water bodies where otherwise up to date sampling and existing conditions warrant further bacterial control measures.

Any TMDL guidance must contain a complete and robust discussion of public involvement. In our experience public involvement is the most important part of any non-point source water quality program for 3 reasons:

1. change in behavior is the only effective control for important non-point sources;
2. citizen support is essential for the adoption of local regulations; and
3. public support is essential for the allocation of limited local tax dollars.

In conclusion, we applaud DEP's efforts to improve water quality through establishment of a pathogen TMDL in a number of possibly impaired waterbodies. However, we urge DEP to reconsider the proposed scope and basis for the statewide pathogen TMDL process. We suggest that DEP should further evaluate the various watersheds of concern and group them in much smaller areas based on priority such as demonstrated threat to public health at areas of body contact recreation or food production. However, DEP cannot do this important task alone. We recognize DEP would need to increase its staff.

We suggest DEP explore collaborating with EPA and regional planning agencies (such as MAPC and SRPEDD) to fund expanded and longer term water quality programs within DEP and the regional planning agencies. We suggest considering groups of towns working in an approach similar to that used for transportation planning. We observe that public health and safety is one of the most important roles of local government. DEP could then engage affected cities and towns directly and develop a collaborative process in each area. This means that rather than awarding grants piecemeal, we think some of the existing grant funding might be better channeled into broader, regionalized program development efforts.

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We appreciate the opportunity to comment on this important process. If you have any questions regarding these comments, please do not hesitate to contact the Dartmouth Department of Public Works.

Signed

Chairman of the Dartmouth Public Works Board

CC: Dartmouth Select Board
Dartmouth Town Administrator
Dartmouth Board of Health

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MassDEP Response:

Thank you for submitting your comments and concerns. We appreciate your feedback and suggestions on improving the TMDL development process and how regional collaboration could support implementation.

Lack of Notice

Please refer to General Comments and Responses at the beginning of this section.

Age of Data and Data Quality

Please refer to General Comments and Responses at the beginning of this section. All data are collected under Quality Assurance Project Plans. MassDEP data are available online at: https://www.mass.gov/guides/water-quality-monitoring-program-data

TMDL Process

Please refer to General Comments and Responses at the beginning of this section. The targets established in the TMDL are based on the Massachusetts Surface Water Quality Standards (314 CMR 4.00). Please also refer to the response for Comment 20, Comment 30 and General Comments and Responses. Please see sections 5- 7 in the TMDL core document for more information on approaches to implementation.

Descriptions of Local Watersheds are Out of Date

Thank you for your comments regarding current Town planning documents and bylaws. The information in Appendix Z has been updated. The TMDL appendices are not meant to contain an exhaustive description of pollution control efforts for each municipality. The efforts described in the comments are examples of TMDL implementation and will likely help impaired surface water meet water quality standards.

Discussion of Public Involvement

Please refer to General Comments and Responses at the beginning of this section.

Suggested Regional Collaboration

MassDEP is supportive of both regional monitoring and TMDL implementation activities. MassDEP has taken several efforts to promote regional water quality sampling by promoting collaborations in our Water Quality Monitoring Grant program, which is administered by the Watershed Planning Program (WPP). In addition, MassDEP has supported regional NPS pollution reduction efforts through the Clean Water Act (CWA) Section 319 NPS Implementation Grant program, administered by WPP's NPS Management Section. The most recent request for proposals included a category that sought proposals from Regional Planning Agencies to serve as Regional NPS Coordinators and advance the goals of the Massachusetts NPS Management Plan. Some other recent grant project categories to support capacity building included the CWA Section 319 Environmental Justice NPS Coordinator program, Agriculture Regional NPS Coordinator program, NPS Capacity Building and Technology Transfer and Development of Municipal and Regional Stormwater Collaboratives and Funding Mechanisms. We also agree that behavior change can be effective in reducing NPS pollution. MassDEP recently supported a Community Based Social Marketing (CBSM) project that aimed to build the capacity of project partners, including regional planning agencies, conservation districts, and nonprofits (e.g., watershed associations), through the implementation of CBSM. In the winter of 2023, MassDEP facilitated an Introductory Workshop on Community-Based Social Marketing that provided a comprehensive

introduction to CBSM and how it is being applied worldwide to foster behaviors that protect the environment. Please also refer to the response to comments 7,11,24 and 40 above.

32) Comments Received From the Town of Dartmouth Board of Health

Town of Dartmouth
Board of Health
400 Slocum Road
Dartmouth, MA 02747

Christopher Michaud, Director
Telephone: 508-910-1804
Fax Telephone: 508-910-1893

Public Health
Prevent. Promote. Protect.
Michelle Keith, Chair
Emily Michele Olmsted
Richard Romero

June 20, 2024

MassDEP Watershed Planning Program
Attention Timothy Fox
8 New Bond Street
Worcester, MA 01606

Re: Statewide Pathogen TMDL (CN 515.0) Comments

Dear Mr. Fox:

The purpose of this communication is in regard to the MassDEP Draft Massachusetts Statewide Pathogen Total Maximum Daily Load (TMDL) for Pathogen-Impaired Waterbodies. Initially, it appears that MassDEP did not intend to conduct targeted outreach on the proposed plan here in the Town of Dartmouth, either intentionally or perhaps for a broader purpose across the state. As best can be determined, the Department mostly relied upon a press release for the general public on the MassDEP webpage to announce the initiative on April 26, 2024, for the single in-person public hearing and informative session which occurred in Worcester on May 8, 2024, and a virtual of the same on May 9, 2024. All of this escaped Dartmouth officials until a journalist reached out by email on May 20, 2024, to ask for comments.[1]

It shall be noted, we have recently discovered by our research for these comments that MassDEP did publish in the MEPA Environmental Monitor of the notice of informational sessions in May and close of comment in early June; however, no such update was provided to the public in subsequent volumes and issues of the Environmental Monitor of the additional informational session, opportunity for in-person comments and extended written comment period. Why would the expanded opportunity for public participation be excluded from posting in the Environmental Monitor, especially if such notice was posted initially?

A conversation between myself and the Southeast Regional Director on May 22, 2024, revealed that he was not aware of the ongoing efforts by the Department with the open comment period for a Massachusetts Statewide Total Maximum Daily Load for Pathogen-Impaired Waterbodies. This point alone reveals the lack of interest of MassDEP in working cohesively as a department by beginning proper outreach at their own regional offices. If one of the regional offices was unaware, how was the general public and overstretched municipal officials expected to know?

Perhaps, if the regional director was contacted, he may have suggested contacting the towns as was done in 2022 with the proposed revisions to 310 CMR 15.000 and was done when the draft nutrient TMDLs when proposed here in Dartmouth for the Slocums and Little River estuaries.

[1] Email dated May 20, 2024, from New Bedford Light reporter Adam Goldstein to Town of Dartmouth officials.

Dartmouth officials requested more opportunity for public and stakeholder outreach by MassDEP, a vital component to any government action. MassDEP in response to the request, provided one additional hybrid virtual/in-person informative session and extended written comment period by a mere eleven days.[2] While the one additional session and eleven extra days for comments was better than the initial approach, it falls far short of genuine public participation and stakeholder engagement in a state of almost seven million people, and being the 16th most populous state in the nation.

Ultimately, MassDEP will submit the Draft Massachusetts Statewide Pathogen Total Maximum Daily Load for Pathogen-Impaired Waterbodies to the EPA for TMDL approval. Whereby, EPA approval may assess public participation in the TMDL development based on a listing of criteria on the EPA's website.[3] While the EPA notes in their TMDL Overview webpage that citizen involvement varies by state, can MassDEP defend that the mere two in-person sessions and one virtual the Department offered as engaging the public and stakeholders to obtain local knowledge and useful information about the waterbodies or waterways?

Clearly, public participation is intended by the end process with the EPA and needed. The EPA notes on the aforementioned webpage that "*citizen information and participation can improve the quality of TMDLs that are developed and can ultimately speed up cleanup of impaired waters or secure protection of threatened waters*". With 288 of the 351 municipalities hosting a waterway within the Draft Massachusetts Statewide Pathogen Total Maximum Daily Load for Pathogen-Impaired Waterbodies, how was the fast-track nature of the public participation process adequate to assure citizen and stakeholder input was not bypassed throughout the Commonwealth of Massachusetts?

Additionally, attention must be brought to the Environmental Justice Policy of the Commonwealth of Massachusetts Executive Office of Energy and Environmental Affairs. Within the policy is a directive on agencies that must follow the policy's requirements, including MassDEP.[4] Environmental justice populations are established based on several criteria with one being English language proficiency. With over 82% of the municipalities in Massachusetts having impaired segments of waterways, MassDEP was either confident that watersheds of the impaired waterway segments do not include areas with environmental justice populations based on language proficiency or had another motive not to be inclusive in their website where the information on meetings and documents was provided.[5] However, elsewhere on the same website MassDEP does provide translation opportunities for other Department matters involving stakeholder outreach or public participation, which raises a question. While the other matters providing translation for other languages are regulatory, and the Draft Massachusetts Statewide Pathogen Total Maximum Daily Load for Pathogen-Impaired Waterbodies is not, why should people who are not fluent in the English language be excluded from participating in this important process? Furthermore, how does the omission of non-English language documents for the Draft Massachusetts Statewide Total Maximum Daily Load for Pathogen-Impaired Waterbodies achieve compliance with the Environmental Justice Policy for community engagement?[6]

With just two in-person informative meetings and one hybrid, how is MassDEP assured that the scheduling of such meetings was convenient in time, location and in consideration of public

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[2] Draft Massachusetts Statewide Total Maximum Daily Load for Pathogen-Impaired Waterbodies Fact Sheet and

[3] Overview of Total Maximum Daily https://www.epa.gov/tmdl/overview-total-maximum-daily-loads-tmdlsLoads (TMDLs) | US EPA

[4] Environmental Justic Policy of the Executive Office of Energy and Environmental Affairs, updated June 24, 2021, page 3, Applicability.

[5] https://www.mass.gov/info-details/massdep-public-hearings-comment-opportunities

[6] Environmental Justic Policy of the Executive Office of Energy and Environmental Affairs, updated June 24, 2021, page 10, EEA Agency Services, Enhancing Public Participation 15.

transportation as required by the Policy? While one can argue the virtual may be a means to address transportation, a problem with timing still exists. MassDEP, by extending the comment period and providing an additional informational meeting with comments, acknowledged more participation was needed. However, the time of the June 13, 2024, meeting occurred from 1:00 – 3:00 pm once again. What data can MassDEP provide to demonstrate that the early afternoon is convenient to environmental justice populations or was it selected to align with office hours for consideration of staff?[7]

Equally problematic in MassDEP's process of developing the Draft Massachusetts Statewide Total Maximum Daily Load for Pathogen-Impaired Waterbodies is the length of time. First, is the time between testing periods, eight years, with the first tests in 2005 and then one more set in 2013. Why so long and what scientific data or studies can the Department provide to justify the eight-year gap? Are just two sets of data eight years apart enough? Next is the time to compile the draft report, coming eleven years after the last round of sampling. Why did it take so long to compile a report from such a limited sampling?

The time delay mentioned above is noteworthy because MassDEP is rushing this through to completion on some unspecified arbitrary deadline in the second most important phase of the process, public participation and stakeholder engagement. That said, why is MassDEP so focused on rushing through the public participation phase when it took almost twenty years from the first of two sampling sets to arrive at this point?

Lastly, another disturbing point needs to be addressed: disinterest in transparency. On May 22, 2024, a records request was submitted to MassDEP in regard to laboratory data reports and chain of custody forms for the two sampling periods.[8] The response from MassDEP was a fee in the amount of $387.50 would need to be paid to obtain the information that is foundational to the report. How does MassDEP prepare a report and not have immediate access to records that were used in the report and a fee in the amount of $387.50 would be needed for a mere eleven samples?[9]

Facing the deadline of June 21, 2024, for the close of written comments I had to streamline the request in hopes to avoid the fee process to begin the production of documents. MassDEP only accepts payment by mail to a drop box in Boston so that would obviously create a delay. Therefore, I requested the data from a single year, 2013 and offered additional concessions to two sampling dates within that year that revealed the highest pathogen counts.[10]

MassDEP did provide records for 2013, on June 12, 2024, and we are appreciative of that, however, that still leaves an unanswered question. Why should stakeholders and the public be prevented from obtaining records that are vital to the Statewide Plan due to MassDEP holding an arbitrary deadline for the public process and apparently having records so lost that it would cost a stakeholder $387.50 to cover Department time to find the records?

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[7] Environmental Justic Policy of the Executive Office of Energy and Environmental Affairs, updated June 24, 2021, page 10, EEA Agency Services, Enhancing Public Participation 15.
[8] Email dated May 22, 2024, from Christopher Michaud, Director of Public Health for the Town of Dartmouth to MassDEP staff.
[9] Email dated June 5, 2024, from MassDEP staff to Christopher Michaud, Director of Public Health for the Town of Dartmouth.
[10] Email dated June 6, 2024, from Christopher Michaud, Director of Public Health for the Town of Dartmouth to MassDEP staff.
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Good practice would be to have factual records immediately available to justify the report, which is cause for another question. If records are so hard to recover, how did MassDEP verify the accuracy of summaries in Draft Massachusetts Statewide Pathogen Total Maximum Daily Load for Pathogen-Impaired Waterbodies?

In no way shall the comments above be construed as an attack of the intended outcome of a proposed pathogen TMDL for statewide planning. The comments herein are about the flawed process MassDEP has chosen with the Draft Massachusetts Statewide Pathogen Total Maximum Daily Load for Pathogen-Impaired Waterbodies. As noted above, it has taken a reporter to advise stakeholders of an important ongoing process that was rushing to completion and not regional staff from MassDEP as customarily occurred. Furthermore, it was later revealed to Town of Dartmouth officials that the program leading up to this limited window of participation began almost twenty years ago and again without notice to the town. Why is such an important task of MassDEP shrouded in such secrecy to the municipalities, completely side-stepping of the Environmental Justice Policy of the Commonwealth of Massachusetts Executive Office of Energy and Environmental Affairs and being rushed?

What other draft TMDLs has MassDEP proposed recently, including but not limited to the New Bedford Harbor embayment system and the Weweantic River in Wareham (both areas with significant EJ areas) and did MassDEP adhere to the aforementioned Environmental Justice Policy or follow the process of single language communications?

Unfortunately, bypassing public participation and stakeholder outreach in this phase of the Draft Massachusetts Statewide Pathogen Total Maximum Daily Load for Pathogen-Impaired Waterbodies, is only going to relegate a final approved Pathogen TMDL to becoming another document that sits to the side, and nothing being done until a crisis unfolds like the litigation that brought MassDEP to propose changes to 310 CMR 15.000 in 2022 and promulgate in 2023.[11] Let us not repeat the mistakes of past TMDLs, and this time perform true outreach before submitting to the EPA.

Hopefully, the comments here will be an opportunity to stop this flawed process that is excluding people of the Commonwealth from this important opportunity for protection of public health and the environment. All people regardless of language fluency are deserving of the same opportunity from the Commonwealth of Massachusetts, and we can all agree based on the facts above that equal opportunity has not happened with the MassDEP Draft Massachusetts Statewide Pathogen Total Maximum Daily Load for Pathogen-Impaired Waterbodies. Lastly, many of the points raised in this letter about communication efforts by the Department have been echoed by the public and perhaps threatened or filed as Title VI complaints with the EPA.[12] That said, can MassDEP defend their notification actions for the MassDEP Draft Massachusetts Statewide Pathogen Total Maximum Daily Load for Pathogen-Impaired Waterbodies against a Title VI complaint filed with the EPA?

Sincerely,

Christopher Michaud, Director of Public Health

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[11] Conservation Law Foundation, Inc. on behalf of affected residents of the Commonwealth, Plaintiffs, versus Massachusetts Department of Environmental Protection; the Town of Barnstable, Massachusetts; the Town of Mashpee, Massachusetts, Defendants.

[12] CLF, Community Challenge Expanded Waste Facility in New Bedford - Conser CLF, Community Challenge Expanded Waste Facility in New Bedford - Conservation Law Foundation vation Law Foundation

cc: Juan Carlos Hunt, EPA Office of Civil Rights: hunt.juancarlos@epa.gov
Kenneth Moraff, Director, Water Division, EPA: moraff.ken@epa.gov
Caroline Lenoine, Deputy Director of EJ for External Stakeholder Coordination: caroline.lenoine2@mass.gov
Stephanie Cooper, Undersecretary for the Environment: stephanie.cooper@mass.gov
Bonnie Heiple, Commissioner, MassDEP: Bonnie.Heiple@mass.gov

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MassDEP Response:

Lack of Notice and Public Outreach

Please refer to the General Comments and Responses at the beginning of this section. MassDEP received comments during the public comment period for the 2018/2020 Integrated Report requesting the development of pathogen TMDLs. MassDEP's priority concerns continue to be addressing impairments caused by nutrients (nitrogen and phosphorus) and pathogens that affect public health. More information about MassDEP's approach to TMDL prioritization can be found on our website: https://www.mass.gov/guides/the-basics-of-total-maximum-daily-loads-tmdls#-massdep's-tmdl-strategy-

Environmental Justice

Thank you for your comments regarding engagement with Environmental Justice communities. Please refer to the General Comments and Responses at the beginning of this section. MassDEP values feedback on improving our outreach process. Translation services are offered and available upon request. In addition, e-mail announcements regarding the draft TMDL were sent to MassDEP's most up-to-date Environmental Justice contact list. Please also see the response to comment 31.

Time Gap Between Testing Periods

Please refer to the General Comments and Responses at the beginning of this section. MassDEP's Watershed Planning Program is responsible for monitoring water quality for all waters of the state. To accomplish this, sampling is completed on a rotating basin schedule, resulting in a gap of when sampling is repeated in a particular watershed. When available, quality-assured data from external groups can help alleviate this data gap. However, the goal of ensuring that waterbodies meet applicable surface water quality criteria established in the Massachusetts Surface Water Quality Standards (314 CMR 4.00) remains. MassDEP has supported numerous volunteer water quality monitoring efforts through our grant programs. Please also see the response to comments 7,11,24 and 30.

Disinterest in Transparency

MassDEP follows 950 CMR 32.00: Public records access. Only data that were used to make assessment decisions and have gone through an extensive quality assurance and quality control process were used in the TMDL. For more information see: https://www.mass.gov/guides/water-quality-monitoring-quality-management-program. MassDEP water quality data are freely available online at: https://www.mass.gov/guides/water-quality-monitoring-program-data.

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33) Comments Received From Upper Blackstone Clean Water

UPPER BLACKSTONE CLEAN WATER

Stewardship Through Science

50 ROUTE 20 MILLBURY, MA 01527 P 508.755.1286 ubcleanwater.org

June 21, 2024

Commonwealth of Massachusetts
Department of Environmental Protection
Watershed Planning Program
Attention: Timothy Fox
8 New Bond Street
Worcester, MA 01606
Bureau of Water Resources

DELIVER BY EMAIL: Timothy.M.Fox@mass.gov

Subject: Statewide Pathogen TMDL (CN 515.0) Comments

To Whom It May Concern:

Upper Blackstone Clean Water (UBCW) appreciates the opportunity to provide comments on the Massachusetts Statewide Total Maximum Daily Load for Pathogen-Impaired Waterbodies. As you may be aware, the UBCW treatment process includes disinfection and dechlorination of all effluent prior to discharge into the Blackstone River.

Appendix J of the Draft TMDL describes data and potential sources of pathogens in the Blackstone River watershed. This water quality characterization includes a description of UBCW's Wastewater Treatment Facility (WWTF) as a potential source of pathogens to Blackstone River segment MA51-03, referencing a 2003 power failure that caused a large discharge of pathogens into the Blackstone River:

> *An exceptional example of a large scale illicit discharge to this segment resulted from the failure of two electric grids and lack of backup generator at the Upper Blackstone WWTF on October 2, 2003, releasing approximately nine million gallons of untreated wastewater over six hours and resulting in maximum observed in-stream E. coli levels of 390,000 CFU/100mL near the discharge (MassDEP 2010).*

We are concerned that this statement suggests a risk that was mitigated by 2006 with the addition of standby power generators at the UBCW disinfection facility and headworks, as well as the complete replacement of electrical transmission and power feeds. Those upgrades were just one component of the massive investments in treatment capability and reliability that have taken place in the last 20 years, and continue today as part of our asset management program. Most recently, UBCW is procuring additional standby generators to further improve system resiliency, reliability, and reduce dependence on the utility grid.

UBCW is concerned that the discussion in Appendix J will suggest to the public that there is an ongoing risk of a future discharge of pathogens due to power failure. The prior and continued investments by UBCW in its treatment capability and systems and in standby power mean that the circumstances that resulted in the 2003 discharge would be very

unlikely to reoccur today. Therefore, we request that MassDEP revise the discussion in Appendix J to include these facility upgrades and how they are designed to prevent this type of event from occurring in the future.

Throughout the draft TMDL, much of the data used in the individual river segment analysis is old, often dating to 2008. Relying on old data fails to reflect improvements resulting from the last 16 years of wastewater and stormwater management investments. More timely data collection by MassDEP is needed to make a fair presentation of current conditions to the public and all stakeholders.

If you have any questions, please do not hesitate to contact me at ksangrey@ubcleanwater.org or (508) 755-1286.

Very truly yours,
UPPER BLACKSTONE CLEAN WATER

Karla H. Sangrey, P.E.
Engineer Director/Treasurer

C: Zach Eichenwald, CDM Smith
Matthew Labovites, Board Chair

A:\MCWRS\Upper Blackstone Comments Bacteria TMDL 06-21-24.docx

MassDEP Response:

Thank you for your comment. MassDEP has revised the language in Appendix J.

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34) Email from John Haran <john.haran@comcast.net>, Dartmouth Resident, June 16, 2024

Please schedule a open public meeting to discuss the situation with the rivers in Dartmouth.We deserve that much.

The Town of Dartmouth asks for another public meeting to discuss the two rivers in Dartmouth. Please schedule a meeting in the near future.

MassDEP Response

There were three public information sessions hosted by MassDEP that were open to the public. Please refer to the General Comments and Responses at the beginning of this section.

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35) Email from Debra and Mark Hartman <debzweb274@comcast.net>, Dartmouth Residents, June 16, 2024

We are residents of Dartmouth MA and would like to request a delay in the rulemaking changes and would like you to please come to Dartmouth to host a public meeting regarding any changes in regulations regarding the Statewide Pathogen TMDL (CN 515.0).

MassDEP Response

The TMDL is not a change in regulation. Please refer to the General Comments and Responses at the beginning of this section.

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36) Email from Maurice Lemieux <jumpingcups@aol.com>, Dartmouth Resident, June 17, 2024

It has recently come to my attention that the MADEP is looking to implement sweeping changes to the Total Maximum Daily Load for Pathogen-Impaired Waterbodies. As a stakeholder concerning these issues, I personally and the towns need more time and outreach information. I am asking you to delay to these changes to allow the affected communities to have direct input. I am also requesting that MADEP come to Dartmouth and or Westport to hold a public hearing on this subject to inform us on this very important matter.

MassDEP Response

Please refer to the General Comments and Responses at the beginning of this section.

---

37) Email from Janessa Carvalho <janessacarvalho@gmail.com>, Dartmouth Resident, June 17, 2024

I am writing out of deep concern about the Statewide Pathogen TMDL and more importantly its implications on all taxpayers who are already facing great challenges and concerns regarding finances as MA residents. There should be no changes nor broad expectations on this topic.

At a minimum, I request that the DEP delay any rulemaking changes and, further, as a taxpayer, I expect that the program comes to each affected town, including my town of Dartmouth and host an in person public meeting to talk specifics on the local implications of your proposed regulatory changes and be available to answer questions in order to have a transparent discussion.

MassDEP Response

The TMDL report is not proposing any regulatory changes. Please refer to the General Comments and Responses at the beginning of this section.

---

38) Email from Jill Lemieux <jlemieux08@gmail.com>, Dartmouth Resident, June 17, 2024

It has recently come to my attention that the MADEP is looking to implement sweeping changes to the Total Maximum Daily Load for Pathogen-Impaired Waterbodies. As a stakeholder concerning these issues, I personally and the towns need more time and outreach information. I am asking you to delay to these changes to allow the affected communities to have direct input. I am also requesting that MADEP come to Dartmouth and or Westport to hold a public hearing on this subject to inform us on this very important matter.

MassDEP Response

Please refer to the General Comments and Responses at the beginning of this section.

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39) Email from Dan Turner <dturner@bluewhaletechnologies.com>, Dartmouth Resident, June 18, 2024

I have lived in the Town of Dartmouth for 24 years. I am process design engineer specializing in wastewater treatment systems for Advanced High Rate Biological Treatment, Membrane Separations, etc., for industrial clients throughout North America. I am requesting a delay to any changes in policy and regulations. It is imperative that MADEP comes to Dartmouth and host an in person public meeting to talk specifics on the local implications of the proposed regulatory changes. I also ask that MADEP tales the time to be available to answer questions and have an open and transparent discussion with the citizens of Dartmouth.

MassDEP Response

Please refer to the General Comments and Responses at the beginning of this section.

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40) Email from Mare Maccini <reillybean@comcast.net>, Dartmouth Resident, June 19, 2024

It's my understanding that MADEP didn't provide enough advanced notice to Dartmouth on these proposed changes, which prevents town officials and citizens from properly engaging as stakeholders concerning issues that are very local/site specific to our impaired waterbodies. DEP is attempting to address issues like they did with Title 5, this time by imposing sweeping mandates on the entire state. This process seems to be very similar to the Title 5 process and totally lacks transparency. This affects my life and my financial well being and I have a loud objection. I am requesting the DEP delay any rulemaking changes and demand that they come to Dartmouth and host an in person public meeting to talk specifics on the local implications of their proposed regulatory changes and be available to answer questions and have a transparent discussion.

MassDEP Response

The TMDL report is not proposing any regulatory changes. Please refer to the General Comments and Responses at the beginning of this section.

41) Email from Chris Fay <cjf333@yahoo.com>, Dartmouth Resident, June 21, 2024

I'm writing to request a delay in the process to formalize/adopt any regulations regarding Statewide Pathogen TMDL (CN 515.0). I live in the Town of Dartmouth, and these regulations would impact at least 2 of our waterways. This process has the same feel as the flawed Title 5 public notification/engagement process, which lacked the proper advanced notice and engagement of local stakeholders. I understand that MADEP has granted a minor time extension for comments and thankfully that happened, because the method of public notification seems to be an archaic process that allows for very limited public notification (that actually makes it to the citizen level) when there is much at stake for local communities, this in turn leaves citizens and local leaders with very little time for meaningful engagement in the public process that affects our lives and wallets. I feel that MADEP needs to enhance the public notification process, and work with local communities to ensure that the messaging gets out to the citizen level in a broader and more efficient way.

On behalf of many other concerned and engaged citizens in Dartmouth, I am respectfully requesting that DEP come to Dartmouth for an in person public meeting to discuss site specific issues in our waterways and the local implications regarding this issue and any potential mitigation. The public meeting held in Lakeville during the workday on 6/13 from 1 to 3 PM was not a time that would have generated meaningful public engagement from citizens that are working at their jobs. I also ask that MADEP be available to answer questions at a meeting in Dartmouth and have an open and transparent discussion with the citizens. The discussion would ideally include an executive summary of local issues along with any planned mitigation, which would be helpful to the average citizen.

We all appreciate the need for clean waterways. But we also want to have a voice and be a part of the process that would have implications to our town and citizens.

MassDEP Response

Please refer to the General Comments and Responses at the beginning of this section.

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42) Email from Kenneth Loranger <KLoranger@mapfreusa.com>, Dartmouth Resident, June 21, 2024

Good morning.

I am writing to you folks as asked in a DEP meeting concerning the TMDL changes that the DEP would like to make.

I ask that the DEP waits on implementing any type of changes concerning the Pathogen findings. We in Dartmouth would like the chance to be heard along with listening as a group/taxpayer to understand where the reports came from. Who will this impact and how will this impact the town citizen. We need to know where the data come from and how old is the data.

The DEP has not done its due diligence in retrospect to notifying any of the affected taxpayers. There should have been town meetings MA mailers to all taxpayers and a meeting held at a time and place that taxpayers could make not during the week between 1:00pm and 3:00 when all are working.

Please wait until we can all understand the who, what, and why.

Thank you.

Kenneth Loranger

Material Damage Supervisor

MAPFRE Insurance

11 Gore Road

Webster, MA 01570

Phone. 508-949-9000 Fax 508-949-9655

Cell. 774-280-0220

Email kloranger@mapfreusa.com

MassDEP Response

Please refer to the General Comments and Responses at the beginning of this section.

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43) Email from Michelle Keith < michellekeithesq@gmail.com>, Dartmouth Resident and member of the Dartmouth Board of Health, June 21, 2024

Re: Statewide Pathogen TMDL (CN 515.0) Comments

Dear Mr. Fox,

Please note as an elected member of the Dartmouth Board of Health I support the extensive comments and report submitted on behalf of Dartmouth's Board of Health by Director of Public Health Christopher Michaud dated June 20, 2024, entitled Re: Statewide Pathogen TMDL (CN 515.0) Comments.

In reference to these comments, as a private citizen and resident of Dartmouth, I ask for you to: (1) provide improved public and stakeholder outreach by MassDEP to ensure genuine public participation and engagement especially in light of the Environmental Justice Policy of the Commonwealth of Massachusetts Executive Office of Energy and Environmental Affairs and lack of notice in multiple languages, (2) streamline record requests for laboratory data reports and chain of custody forms for the two sampling periods pertaining to developing the Draft Massachusetts Statewide Total Maximum Daily Load for Pathogen-Impaired Waterbodies.

The EPA notes on its TMDL Overview webpage: "citizen information and participation can improve the quality of TMDLs that are developed and can ultimately speed up cleanup of impaired waters or secure protection of threatened waters." With 288 of the 351 (82%) Massachusetts cities and towns affected by impaired waterways, imagine the improved progress we could make if there was adequate outreach by MassDEP to ensure genuine public participation and engagement?

Perhaps providing direct notice to cities and towns electronically would improve outreach? Or, as the Federal Register provides, allow cities, towns, the public, and other stakeholders to subscribe to the public notices of their choice so they may receive immediate notice upon posting?

Thank you for trying to take action to establish Statewide Pathogen TMDLs. However, The MassDEP's mission "to protect and enhance our natural resources – air, water, and land" would be best served by adequately engaging the public and basing decisions on current scientific data to develop well-reasoned, comprehensive, coordinated, and successfully executable TMDLs. The availability of merely two outdated laboratory data reports from 2005 and 2013 may not adequately inform TMDL decisions.

Sincerely,

Michelle Keith

P.O. Box 79488

North Dartmouth, MA 02747

--

Michelle Keith

Attorney at Law, M.B.A., LL.M

http://www.linkedin.com/in/michellekeithus

P.O. Box 79488

Dartmouth, MA 02747

508.863.6022 mobile

MassDEP Response

Please refer to the General Comments and Responses at the beginning of this section. Public Notices are published in the Environmental Monitor. Additional information can be found on the Mass.gov website here: https://www.mass.gov/info-details/the-environmental-monitor.

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44) Email from Dan Turner <dturner@bluewhaletechnologies.com>, Dartmouth Resident, June 24, 2024

Holly, Timothy, etc.

Based on Total Maximum Daily Loadings (TMDLs) of caused by Combined Sewer Overflows (CSOs) into the New Bedford Harbor, the BOD/COD ammonia-nitrogen associated with raw untreated sewage are considered to be a major cause of generating significant levels of Statewide Pathogen TMDL related pollution of the Buzzards Bay watershed. Please refer to the local news provided in the link below.

https://www.wpri.com/news/local-news/se-mass/buzzards-bay-swim-canceled-for-the-1st-time-in-31-years/

These CSO events occur quite regularly discharge millions of gallons of raw untreated sewage into the Buzzards Bay watershed. Don't you think it would be a better plan to eliminate these CSO releases from occurring into the Buzzards Bay watershed along with upgrading the New Bedford wastewater treatment plant into a Total Nitrogen removal facility? Other significant TMDL sources are the Dartmouth WWTP, Mattapoisett WWTP , Bourne WWTP, and Compost Pile Leachate Streams that the MADEP is promoting. Once the New Bedford WWTP and other TMDL Sources are upgraded to treat for Total Nitrogen Removal (TN) via either Modified Ludzak Ettinger process (MLE <10 mg/L TN) or the 4-Stage Barden Pho ,(<3 mg/L TN) , then the MADEP can focus on other TMDL sources such as residential septic tanks and other sources that should be upgraded to meet Title 51 regulations.

Please address this issue when you come to Dartmouth, MA to discuss the Statewide Pathogen TMDL (CN 515.0) program and please provide factual data to back up your claims that the MADEP as looking for a resolution that properly address the TMDL loading we are experiencing. Please note that we care for our watershed, and we are deeply concerned about how Total Nitrogen and Pathogenic contamination of Buzzards Bay is currently being handled by the MADEP.

As previously submitted comments, please confirm your receipt of this email.

Regards,

Dan Turner
2 Christine Drive
Dartmouth, MA 02747

24 year Resident of Dartmouth

MassDEP Response

Please refer to the General Comments and Responses at the beginning of this section and MassDEP Response to Comment 30 regarding CSOs. Towns are encouraged to apply adaptive management and implement comprehensive wastewater planning strategies to address water quality issues.

References

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MassDEP. (2023). *Final Massachusetts Integrated List of Waters for the Clean Water Act 2022 Reporting Cycle.* CN 568.1, Massachusetts Department of Environmental Protection, Bureau of Water Resources, Division of Watershed Management, Watershed Planning Program. Worcester, MA. Available at https://www.mass.gov/doc/final-massachusetts-integrated-list-of-waters-for-the-clean-water-act-20182020-reporting-cycle-response-to-public-comments/download

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Sign-In Sheet, Public Information Session (5/08/2024), MassDEP CERO Office, Worcester:

SIGN IN SHEET (05/08/2024)
Massachusetts Statewide TMDL for Pathogen-Impaired Waterbodies Information Session

	Print Name	Affiliation
1.	Timothy Fox	Mass Dep
2.	Marielena Lima	CRWA
3.	Howard Erlichman	Howard J. Erlichman
4.	KATHARINE LANGE	MASS RIVERS
5.	Andrew Boucher	Spectrum News 1
6.	Matthew Reardon	MassDEP
7.	Holly Brown	MASSDEP
8.	RICHARD CAREY	MASSDEP
9.	Stephen Humphrey	MassDEP
10.		
11.		
12.		

Virtual Attendees, Public Information Session (5/09/2024), Zoom

Name	Email	City	State/Province
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Ann Ryan	ryan.annp@gmail.com	Chatham	MA
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Barbara Kickham	bks3@townisp.com	Shrewsbury	MA
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Andrew Williams	ajw332@gmail.com	Boston	MA
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Vivian Gyimah	Vivian.gyimah@mass.gov	Worcester	MA

Sign-In Sheet, Public Information Session (6/13/2024), MassDEP SERO Office, Lakeville

SIGN IN SHEET (06/13/2024)
Massachusetts Statewide TMDL for Pathogen-Impaired Waterbodies Information Session

	Print Name	Affiliation
1.	Stephen Humphrey	MassDEP
2.	Matthew Reardon	MassDEP
3.	RICHARD CAREY	MASSDEP
4.	Robert Almy	Dartmouth DPW
5.	Timothy Fox	Mass Dep
6.	Holly Brown	Mass DEP
7.	Lealdun Langley	MassDEP
8.	GERARD MARTIN	MASS DEP
9.		
10.		
11.		
12.		

*Anna Milton in attendance, Reporter Nemasket Week, not signed-in

Virtual Attendees, Public Information Session (6/13/2024), Zoom

Name	Email	City	Organization
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