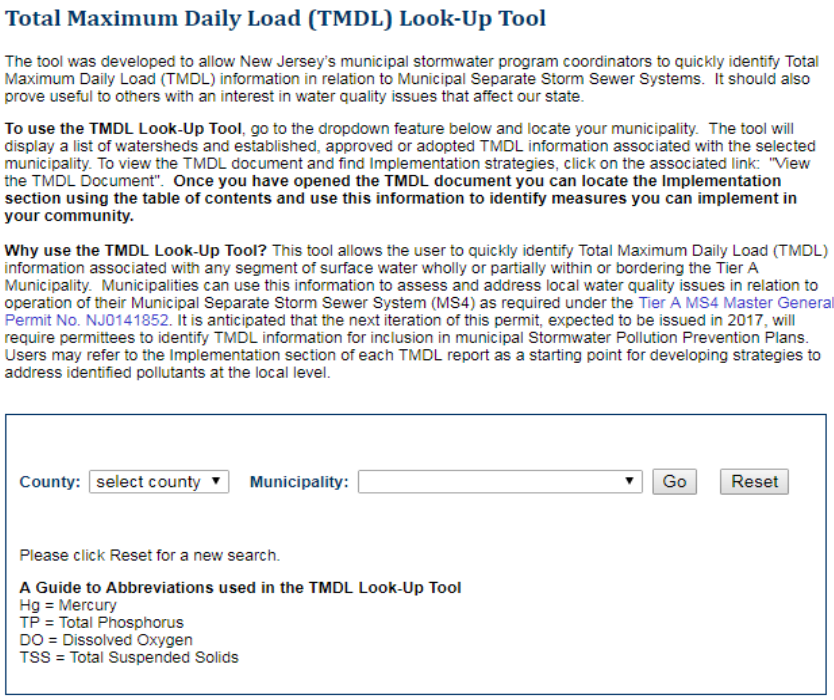
4.2 TOTAL MAXIMUM DAILY LOADS (TMDLS)



Total Maximum Daily Load (TMDL) Look-Up Tool

The tool was developed to allow New Jersey's municipal stormwater program coordinators to quickly identify Total Maximum Daily Load (TMDL) information in relation to Municipal Separate Storm Sewer Systems. It should also prove useful to others with an interest in water quality issues that affect our state.

To use the TMDL Look-Up Tool, go to the dropdown feature below and locate your municipality. The tool will display a list of watersheds and established, approved or adopted TMDL information associated with the selected municipality. To view the TMDL document and find Implementation strategies, click on the associated link: "View the TMDL Document". **Once you have opened the TMDL document you can locate the Implementation section using the table of contents and use this information to identify measures you can implement in your community.**

Why use the TMDL Look-Up Tool? This tool allows the user to quickly identify Total Maximum Daily Load (TMDL) information associated with any segment of surface water wholly or partially within or bordering the Tier A Municipality. Municipalities can use this information to assess and address local water quality issues in relation to operation of their Municipal Separate Storm Sewer System (MS4) as required under the Tier A MS4 Master General Permit No. NJ0141852. It is anticipated that the next iteration of this permit, expected to be issued in 2017, will require permittees to identify TMDL information for inclusion in municipal Stormwater Pollution Prevention Plans. Users may refer to the Implementation section of each TMDL report as a starting point for developing strategies to address identified pollutants at the local level.

County: select county ▼ Municipality: ▼ Go Reset

Please click Reset for a new search.

A Guide to Abbreviations used in the TMDL Look-Up Tool
Hg = Mercury
TP = Total Phosphorus
DO = Dissolved Oxygen
TSS = Total Suspended Solids

A Tier A Municipality is required to develop, update, implement and enforce a stormwater program to ensure compliance with the Other Control Measures outlined in Part IV.C of the Tier A NJPDES MS4 permit, in addition to the Statewide Basic Requirements (SBRs) covered in the previous Chapter. One such Other Control Measure is called a Total Maximum Daily Load (TMDL), which represents the assimilative or carrying capacity of a waterbody taking into consideration point and nonpoint sources of pollutants of concern, the natural background and surface water withdrawals. A TMDL can be thought of as a "budget" for the total amount of a pollutant that can enter a waterbody while still maintaining surface water quality standards. TMDLs have been developed for various pollutants in various waterbodies throughout the state. Because many Tier A Municipalities own or operate MS4s that discharge pollutants to waterbodies with adopted or approved TMDLs, implementing measures to reduce stormwater-related pollutants from MS4s is extremely important in ensuring the effectiveness of TMDLs. On the following page is a summary table of the four Minimum Standards, along with the measurable goals and implementation schedule for these Minimum Standards, for which the permit requires a Tier A municipality demonstrate compliance.

TMDL Requirements			
		Implementation Schedule	
Minimum Standard	Measurable Goal	Existing Permittees	New Permittees
Annually review approved or adopted TMDL reports to identify stormwater related pollutants listed therein and associated with any segment of surface water wholly or partially within or bordering the Tier A Municipality.	Certify annually; SPPP records retention	January 1, 2019	EDPA + 12 months
Use TMDL information identified in compliance with Part IV.C.2.a.i to: (1) assist in the prioritization of stormwater facility maintenance and (2) identify and develop strategies to address specific sources of stormwater related pollutants contributing to discharges.	Certify annually; SPPP records retention	January 1, 2019	EDPA + 12 months
Update SPPP to list information identified in Part VI.C.2.a.i and ii.	Certify annually	January 1, 2019	EDPA + 12 months
Incorporate any strategies identified in Part VI.C.2.a.ii(2) as an Optional Measure	Certify annually	January 1, 2019	EDPA + 12 months

Note: EDPA means effective date of permit authorization.

Introduction

In accordance with Section 305(b) and 303(d) of the Federal Clean Water Act, the State of New Jersey is required to assess the overall water quality of the State's waters and identify those waterbodies with a water quality impairment for which TMDLs may be necessary. The Department fulfills its assessment obligation under the Clean Water Act through the Integrated Water Quality Monitoring and Assessment Report (Integrated Report), which includes the Integrated List of Waterbodies, issued biennially. The Integrated Report can be found from the Bureau of Environmental Analysis, Restoration and Standards at this link: http://www.nj.gov/dep/wms/bears/assessment.htm.

Based on the Integrated Report, the Department identifies waterbodies for which a TMDL may be necessary. A TMDL is the sum of individual wasteload allocations for point sources, load allocations for nonpoint sources, other sources, such as tributaries or adjacent segments, and allocations to a reserve or margin of safety for an individual pollutant. Tier A MS4 discharges are considered point sources under the Clean Water Act; Tier B MS4 discharges are considered nonpoint sources. For MS4 discharges, best management practices (BMPs) are generally considered the most appropriate form of effluent limitations when designed to satisfy technology-based requirements and to protect water quality. For this reason, the Tier A MS4 Permit contains a number of minimum requirements in the form of BMPs.

The BMPs required under the Tier A MS4 permit are aimed at reducing the pollutant loading of many common pollutants, such as solids and floatables, total suspended solids, nutrients, and pathogens. For

example, regular street sweeping will reduce solids and floatables, as well as suspended solids, which have been deposited on streets and are available for transport in stormwater runoff. Wildlife feeding ordinances and pet waste ordinance are aimed at reducing pathogens and nutrients in stormwater runoff. Public education can be especially important in teaching the local population ways to lessen their impact on the local environment, such as properly disposing of waste materials.

The minimum required elements of the Tier A MS4 permit are generally expected to achieve a substantial portion of the required load reductions required by each TMDL, when implemented properly. However, there may be instances where the municipality must refine their implementation of the MS4 program to further reduce pollutant loadings. For example, public education programs may need to be targeted to specific audiences, stricter enforcement of ordinances may be needed, or more conservative post-construction stormwater management standards may be required. Therefore, it is important for stormwater coordinators to be aware of each approved or adopted TMDL associated with a waterbody wholly or partially within or bordering the municipality and the associated pollutant of concern, as well as to be aware of ways to further reduce pollutant loadings. For this reason, the Tier A Permit includes the following requirements for TMDLs.

Minimum Standards for TMDLs

Tier A Municipalities must incorporate TMDL information into the Stormwater Pollution Prevention Plan. At a minimum, the Tier A Municipality must:

- Identify stormwater related pollutants listed in approved or adopted TMDL reports associated with any segment of surface water wholly or partially within or bordering the Tier A municipality;
- Annually review the approved or adopted TMDL reports identified above;
- Use TMDL information to prioritize stormwater facility maintenance, including schedules for repairs, as required in Part IV.B.6.b.iv and C.3.a.iv of the Tier A permit; and
- Identify and develop opportunities to address specific sources of stormwater related pollutants contributing to discharges authorized under the Tier A permit.

Measurable Goals

Tier A Municipalities must certify annually that approved or adopted TMDLs have been identified and reviewed, required maintenance and repairs have been prioritized using TMDL information, and opportunities to address specific pollutant sources have been developed and incorporated into the SPPP as Optional Measures.

Implementation Schedules

Refer to the table listing the Measurable Goals and Implementation Schedule found on Page 2 of this Chapter.

Additional Information for TMDLs

A number of tools have been developed to aid municipalities in meeting the TMDL requirement of the Tier A permit. In addition to the documents available for each TMDL, the following information is available.

TMDL Look-Up Tool

To aid municipalities in identifying TMDLs applicable to their municipality, the Department has developed the TMDL Look-Up Tool. The TMDL Look-Up Tool is an on-line resource that allows municipal Stormwater Coordinators to search for TMDLs applicable to their municipality using a drop-down menu to select the county and municipality. After selecting the municipality, the tool will automatically search for all applicable TMDLs within the municipality. The TMDLs will be separated into three categories:

- "Applicable Stream TMDL(s)";
- "Applicable Lake TMDL(s)"; and
- "Applicable Shellfish TMDL(s)."

The name, pollutant of concern, and waterbody(ies) will be shown for each TMDL, as well as a link to the TMDL document. Each TMDL document contains information including the basis for development of the TMDL, descriptions of pollutant sources, and implementation information including potential actions to reduce pollutant loading. Once applicable TMDLs have been identified, the municipality must review the TMDL reports annually to maintain awareness and ensure that any newly developed TMDLs will be identified. The TMDL Look-Up Tool is available at http://www.nj.gov/dep/dwq/msrp-tmdl-rh.htm.

Stormwater Facility Maintenance

Tier A Municipalities are required to use TMDL information to prioritize stormwater facility maintenance, including schedules for repairs, as required in Part IV.B.6.b.iv and C.3.a.iv of the Tier A NJPDES MS4 Permit.

Part IV.B.6.b of the Tier A permit requires Tier A Municipalities to develop, update and implement a program to detect, investigate and control any localized stream scouring from stormwater outfall pipes owned or operated by the municipality. One component of this requirement is to identify upstream stressors contributing to stream scouring and to take corrective action where stressors are located on property owned or operated by the Tier A Municipality or to ensure proper operation and maintenance of stormwater facilities where stressors are located on property not owned or operated by the Tier A Municipality. Any maintenance, repairs or enforcement required must be prioritized, scheduled and completed. In doing so, municipalities must take into consideration any waterbodies with applicable TMDLs that may be affected by corrective actions and seek to prioritize and schedule actions within those watersheds first. For more information on stream scouring, see Chapter 3.6: *Illicit Connections*.

Part IV.C.3.a of the Tier A permit requires Tier A Municipalities to develop, update, and implement a program to ensure adequate long-term cleaning, operation and maintenance of all municipally owned or operated stormwater facilities. If the Tier A Municipality identifies stormwater facilities that are not functioning properly, they must be repaired immediately. If this is not possible, the necessary preventative and corrective maintenance tasks must be documented, as well as prioritized, and a schedule for repairs must be developed. Prioritization is based upon a number of factors, one of which is applicable TMDLs. Facilities which are identified as potential sources of a pollutant of concern for a TMDL waterbody must be prioritized for maintenance. For more information on stormwater facility maintenance requirements, see Chapter 4.3: *Stormwater Facilities Maintenance*.

Identifying and Developing Optional Measures

Tier A municipalities are required to identify and develop opportunities to address specific sources of pollutants to waterbodies with adopted or approved TMDLs. To do this, it is important to review each TMDL document and understand the pollutant of concern and potential sources. Many TMDL documents include tables with specific potential sources of the pollutant of concern and potential actions to reduce the pollutant loading to the waterbody. In addition, the Department has developed a "tool-box" of potential pollutant sources and potential responses for many common stormwater pollutants. This "tool-box" can be found at http://www.nj.gov/dep/dwq/pdf/10-21-16-tmdl-tool-box.pdf. Once potential opportunities for reducing pollutant loading have been identified, they must be incorporated in the SPPP as Optional Measures. Optional Measures are BMPs that are not required to be implemented to meet the SBRs or AMs, but are used to prevent or reduce pollution. Failure to implement Optional Measures identified in the SPPP will not be considered a violation of the Tier A permit.

To illustrate how a municipality may identify optional measures for reducing pollutant loadings to a TMDL-affected waterbody, consider a municipality that has identified an applicable TMDL for total phosphorus. The municipality would first identify potential sources of phosphorus, which may include pet and wildlife waste or illicit discharges, among many other possibilities. If pet and wildlife waste are identified as a potential problem, the municipality may choose to reduce the input of pollutants through public education and ordinance enforcement. This could include installing signs in parks and residential areas informing the public of the importance of cleaning up pet waste and not feeding wildlife. In addition, local police or another municipal authority may occasionally patrol parks to enforce the ordinances. If illicit discharges are identified as a potential pollutant source, the municipality could develop more thorough measures for tracing and eliminating discharges or opt to increase fines and penalties for illegally connecting to the storm sewer system. If, for example, a waterbody in the municipality had an adopted or approved TMDL for total suspended solids, the municipality may be able to identify old stormwater management basins and retrofit them to increase pollutant removal.

Recommendations

Listed below are some activities that may be used to aid the municipality in identifying pollutant sources and potential responses to reduce the impact of the MS4 on TMDL waterbodies.

- Delineate the drainage area of the MS4 contributing to each waterbody or storm sewer outfall to help identify what areas of the municipality will be effective for implementing stormwater management projects.
- Develop a robust inventory and map of existing stormwater management facilities and evaluate their functionality to identify potential repairs or retrofits. Identify waterbodies with approved or adopted TMDLs on the map and identify in the inventory which stormwater management facilities discharge to TMDL waterbodies.
- Target areas of concern for frequent inspections and maintenance, such as areas with aging infrastructure, areas with high amounts of impervious surfaces, areas served mainly by on-site wastewater systems or areas with a history of illicit connections.
- Identify stormwater management basins that were constructed before 2004 as potential opportunities for retrofits targeted toward increasing runoff treatment and reducing peak flows.
- Identify opportunities to reduce impervious coverage or to implement green infrastructure.
- Restore riparian buffers along waterbodies to provide an opportunity for stormwater runoff to be filtered prior to entering waterways.
- Target enforcement of wildlife feeding and pet waste ordinances to areas with adopted TMDLs.