

TOTAL MAXIMUM DAILY LOAD (TMDL)



Department of
Environmental
Conservation

An Introduction

Why are TMDLs Needed?

To understand what a TMDL is, it is important to know the basis for developing one. All waterbodies in New York State are classified to represent their best uses, such as public drinking water supply, swimming, fishing, and fish reproduction/habitat. New York water quality standards protect these best uses. When a lake or river is identified as not fully supporting its best uses, it is listed on the state's Clean Water Act Section 303(d) List of Impaired Waters. For these listed waters, New York State must develop a TMDL or other strategy to reduce the amount of pollution.



Wastewater treatment plants are regulated by DEC

What are TMDLs?

A TMDL outlines the maximum amount of a pollutant (nitrogen, phosphorus, pathogens, etc.) that a waterbody can receive and still meet water quality standards. Completed TMDLs may require additional or more restrictive requirements for facilities and activities regulated by the NYS Department of Environmental Conservation (DEC).

TMDL plans:

- Identify all the pollutant sources contributing to the water impairment.
- Use computer models to determine the pollution reductions needed to meet water quality standards and to specify the amount of pollution coming from each source.
- Determine how much each source should be reduced to meet water quality standards.
- Include an implementation plan that identifies and describes the actions needed to improve water quality.

Who Develops TMDLs?

DEC is responsible for developing TMDLs and submitting them to the U.S. Environmental Protection Agency (EPA) for approval. Stakeholders are invited to provide information as the TMDL is developed. A formal public review and comment period is required before it is finalized and approved by the EPA.

KEY POINTS

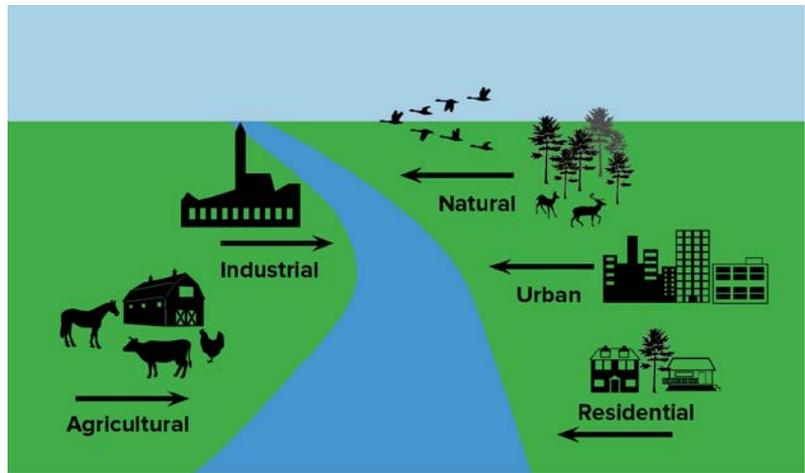
A TMDL:

- Defines the ability of a waterbody to absorb a pollutant and still meet water quality standards
- Identifies the sources of pollution and specifies reductions from each source
- Includes an implementation plan
- Must be approved by the U.S. EPA

Information Needed to Create a TMDL

Information is collected for the entire watershed and includes:

- Land use data (e.g., forest, developed, pasture, wetland)
- Water quality sampling results
- Description of potential sources of pollution (e.g., residential septic systems, wastewater treatment plants)
- Annual rainfall data
- Watershed area, topography and geology
- Waterbody characteristics (e.g., depth and size)



There are many possible sources of pollution in a watershed.

Outcomes from TMDL Plan Development

From the TMDL analysis, we learn which sources of pollution have the most impact. We then identify practices to address these sources in an implementation plan that becomes part of the TMDL.

The implementation plan describes the actions needed for the waterbody to meet water quality standards for its best uses, such as recreation or water supply. For example, an implementation plan may include recommendations to improve agricultural practices, repair or replace septic systems, sewer a community of homes, or manage aquatic plants. Plans may also recommend more restrictive construction requirements and stricter discharge limits for wastewater treatment plants.

The implementation plan is developed with input from the watershed community. Any clean water plan is useful only if it is implemented. DEC modifies permits and enforces requirements for regulated activities in the watershed. Local municipalities and organizations are encouraged to help achieve pollution reductions by addressing non-regulated sources. The implementation plan can be used by the watershed community to identify projects that will improve water quality. In addition, information from the plan may improve eligibility for state and federal funding programs to help pay for projects.

Online Resources

- Clean Water Plans: www.dec.ny.gov/chemical/23835.html
- Resources for TMDL Development: www.dec.ny.gov/chemical/69889.html

CONTACT INFORMATION

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