



CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION
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TMDLs – A Management Tool to Achieve Water Quality Standards in
Connecticut's Surface Waters

Fact Sheet

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Gina McCarthy, Commissioner

Important Components of the TMDL Process:

- Describe Current Water Quality Impairments and Identify Possible Causes
- Set Goals to Achieve Water Quality Standards and Support Public Uses
- Provide a Scientific and Technical basis for Developing TMDL Implementation Plans by Stakeholders in the Watershed
- Recommend Follow Up Monitoring to Assess the Effectiveness of TMDL Implementation
- Provide for a Watershed Approach to Water Quality Management
- Consider Local Stakeholder Concerns through Public Review and Comment
- Final TMDLs are established by the Department and submitted to the Federal Environmental Protection Agency for Formal Approval

What is a Total Maximum Daily Load (TMDL)?

A TMDL is a tool Water Quality Managers use to address water quality problems. TMDLs provide the framework for restoring impaired waters by establishing the maximum amount of a pollutant that a waterbody can receive without adverse impact to fish, wildlife, recreation, or other uses. This amount is divided up between all potential sources (both point and nonpoint) of that pollutant, and is expressed as:

$$TMDL = Point\ Sources + Nonpoint\ Sources + Background + Margin\ of\ Safety$$

The end result of the TMDL process is a Water Quality Management Plan with quantitative goals to reduce pollutant loadings to the impaired waterbody. TMDLs can be expressed as concentrations, percent reductions, or mass loads.

How Are Waterbodies Selected for TMDL Development?

Under section 303(d) of the Federal Clean Water Act (CWA), States are required to develop TMDLs for waters impaired by pollutants. These waters are identified on the *List of Connecticut Waterbodies not Meeting Water Quality Standards*. In accordance with the CWA, listed waterbodies are prioritized for TMDL development by the Department based on knowledge of the waterbody and pollutant, current resource availability, and programs in place to aid in TMDL implementation. For information regarding procedures for Assessing and Listing Waterbodies, please refer to the following documents:

- *List of Connecticut Waterbodies not Meeting Water Quality Standards*,
- *Water Quality Report to Congress (305(b) Report)*, and
- *Connecticut Consolidated Assessment and Listing Methodology for 305(b) and 303(d) Reporting (CALM)*.



Asnetuck River. Easton

TMDLs have been prepared by the Department for the following pollutants:

Chlorine

Indicator bacteria - Fecal coliform, *E. coli*

Metals - Copper, Lead, Zinc

Ammonia

Nitrogen and Phosphorus

Deicing fluids - Propylene and Ethylene glycol

Whole effluent toxicity

How We Can Achieve Clean Waters Through TMDL Process?

Controls for Point Sources

The Clean Water Act requires a National Pollutant Discharge Elimination System (NPDES) permit for all discharges of pollutants through point sources. An NPDES permit contains numerical limits and specifies other treatment and monitoring requirements to ensure that the discharge does not impact water quality. TMDL allocations must be incorporated into NPDES permits to ensure that Water Quality Standards will be met.

Controls for Nonpoint Sources

Nonpoint sources can be reduced by implementing preventative measures such as: reducing the use of fertilizers, herbicides, and pesticides; keeping septic systems in proper working order; planting appropriate vegetative buffers in riparian areas; discouraging the feeding of waterfowl; and proper pet waste management. Public education and local commitment to cleanup impaired waters are key to reducing nonpoint sources of pollution. TMDLs for waters impaired by nonpoint sources typically include recommendations to implement controls of this type.

What happens after a TMDL is Approved? After approval, a TMDL Implementation Plan can be prepared to layout a written roadmap for responsible stakeholders to follow in order to achieve the TMDL goal.

Development of such a plan involves coordination and participation by the Department, local municipal agencies, watershed groups, and other interested parties.

TMDL Resources

For more information regarding the TMDL Process - Contact the Department's Water Management Bureau at 860-424-3020 or visit the Department's TMDL website at <http://www.ct.gov/dep/tmdl/>

Additional Web Information regarding TMDLs

EPA Region 1 - <http://www.epa.gov/NE/eco/tmdl/index.html>

EPA Nationwide - <http://www.epa.gov/OWOW/tmdl/index.html>

[DEP Nonpoint Source Pollution Management](#)

[DEP Coastal Nonpoint Source Pollution Control Program](#)

[DEP Stormwater Management and Permitting](#)

Web Information regarding Best Management Practices for TMDL Implementation

<http://www.bmpdatabase.org/>

<http://www.cwp.org/index.html>

<http://nemo.uconn.edu/about.htm>

<http://www.stormwatercenter.net/>

Reference Documents

List of Connecticut Waterbodies not Meeting Water Quality Standards

http://www.ct.gov/dep/cwp/view.asp?a=2719&q=325614&depNav_GID=1654

Water Quality Report to Congress (305(b) Report

http://www.ct.gov/dep/cwp/view.asp?a=2719&q=325610&depNav_GID=1654

CT Consolidated Assessment and Listing Methodology for 305(b) and 303(d) Reporting

http://www.ct.gov/dep/cwp/view.asp?a=2719&q=325612&depNav_GID=1654