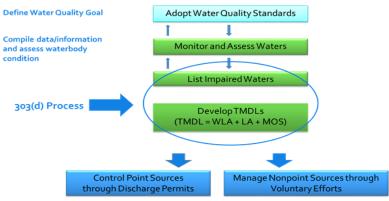
# Total Maximum Daily Load

The Clean Water Act requires states to create a list of impaired waterbodies that do not meet water quality standards. This list is called the 303(d) list and it's approved by the Water Quality Control Commission and EPA. It's updated every two years.

### Water Quality Management Cycle



#### What is a TMDL?

A TMDL is the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards. Developing a TMDL is one way for a waterbody to be removed from the 303(d) list. TMDLs are only set for those pollutants that exceed water quality standards (such as zinc, selenium, or sediment) and usually address one particular part of a waterbody, though it can be an entire river or lake.

The expression TMDL represents both the pollutant cap that is set and the report discussing that cap.

### How is a TMDL calculated?

TMDL = WLA + LA + MOS

Waste Load Allocation (WLA) is the amount of pollutant from existing permitted and unpermitted **point sources** e.g., sewage treatment plant; industrial facility; abandoned mines; regulated stormwater.

Load Allocation (LA) is the amount of pollutant from existing **natural background and nonpoint sources** e.g., diffuse runoff from various land uses; atmospheric deposition; hydromodification.

Margin of Safety (MOS) is a buffer in the equation to account for uncertainty.



## What Happens after a TMDL?

A TMDL is not self-implementing. For much of the waste load allocation in a TMDL, discharge permits are the regulatory mechanism to ensure implementation. The TMDL load allocation, however, is only implemented through voluntary activities, which means without collaboration, the TMDL is only partially implemented. Nonpoint sources are the primary cause of impaired waters and TMDLs addressing nonpoint sources far outnumber those for point sources, making these voluntary activities critical for restoring water quality.

Instead of through specific limits incorporated into point source discharge permits, nonpoint sources of pollution are usually addressed using a combination of best management practices such as fencing and revegetation along a streambank or education materials and outreach programs. These voluntary, practice based approaches to addressing the TMDL load allocation are often funded by grants and other cost sharing agreements.

The Colorado Nonpoint Source

**Program** helps fund projects that address nonpoint source pollution in impaired watersheds.

Learn more about nonpoint source funding opportunities at:

npscolorado.com



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Water Quality Control Division

Department of Public Health & Environment