



Nevada Division of Environmental Protection Bureau of Water Quality Planning

Total Maximum Daily Load Fact Sheet

What is a TMDL?

Total maximum daily loads or TMDLs are an assessment of the maximum amount of pollutant a waterbody can receive without violating water quality standards. TMDLs take into account pollution from all sources, including discharges from sewage treatment facilities and industry; runoff from farms, forests and urban areas; and natural sources. TMDLs provide a way to integrate the management of both point and nonpoint sources of pollution through the establishment of wasteload allocations (WLA) for point source discharges and load allocations (LA) for nonpoint sources of pollution. The TMDL Program is designed to help bring waterbodies into compliance with the water quality standards as needed to support their designated uses such as irrigation, aquatic life, municipal or domestic supply, and water contact recreation.

What is the TMDL Process?

The Clean Water Act, Section 303(d), established the TMDL process to guide application of state standards to individual waterbodies. The process has three steps:

- *Identify Waters Not Meeting Standards*

States must identify and prepare a list (referred to as a 303(d) List) of waters that do not or are not expected to meet water quality standards.

- *Establish Priority Waters/Watersheds*

State must prioritize waters/watersheds and target high priority water/watersheds for TMDL development.

- *Develop TMDLs*

For listed waters, States must develop TMDLs that will achieve water quality standards, allowing for

seasonal variations and an appropriate margin of safety.

How are TMDLs Developed?

TMDL are typically developed based upon readily available information and studies, with varying levels of efforts. In some cases, complex studies or models are needed to understand how the waterbody is responding to pollutant loads. In many cases, simple analytical efforts provide an adequate basis for assessment, load allocations and implementation planning.

Where adequate information is not available, TMDLs may be developed through a phased approach. This approach enables states to use available information to establish interim goals, begin to implement needed controls and restoration actions, monitor waterbody responses to actions, and plan for TMDL review and revision in the future.

What are the Typical Components of a TMDL?

There is more to a TMDL assessment than just the load and/or wasteload allocation needed to meet water quality standards. The TMDL report can contain the following basic components.

- *Problem Statement*

A description of the waterbody, beneficial use impairments of concern, and pollutants causing the impairment.

- *Numeric Targets*

For each pollutant addressed in the TMDL, measurable indicators (e.g. phosphorus concentrations) and appropriate numeric targets (e.g. levels/concentrations needed to protect the beneficial uses) are identified.

- *Source Analysis*

An assessment of relative contributions of pollutant sources that have resulted in noncompliance with the water quality standards.

- *Loading Capacity (Allowable Load) Estimate*

An estimate of the amount of pollutant that can enter the waterbody while meeting the numeric targets (typically numeric water quality standards).

- *Allocations*

The allowable loadings are distributed or “allocated” among the significant sources of the pollutant. The allocations include wasteload allocations for existing and future point sources and load allocations for natural background and existing and future nonpoint sources.

- *Monitoring Plan (for Phased Approach)*

Plan to monitor effectiveness of TMDL and schedule for reviewing and (if necessary) revising TMDL and associated implementation elements.

- *Implementation Plan*

Description of best management practices, point source controls or other actions needed to reduce loadings to the allocated levels.

Who Develops TMDLs?

State water quality agencies are usually responsible for implementing the TMDL process. In Nevada, the Division of Environmental Protection (NDEP) – Bureau of Water Quality Planning is responsible for developing the 303(d) List, establishing priorities, and developing TMDLs as needed.

When a TMDL report is first developed, a draft document is noticed for public comment. After making any appropriate modifications in response to public comment, the TMDL is sent to the United States Environmental Protection Agency for approval.

How are TMDLs Implemented?

TMDLs are developed to provide an analytical basis for planning and implementing pollution controls, land management practices, and restoration projects needed to protect water quality. Once a TMDL is approved, it is implemented through existing National Pollutant Discharge Elimination System (NPDES) permits for point source discharges and voluntary nonpoint source

control programs, to achieve the necessary pollutant reductions.

For more information on the State of Nevada’s TMDL Program, please contact

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Please check out BWQP’s or EPA’s websites for additional water quality and TMDL information:

www.state.nv.us/ndep/bwqp/bwqp01.htm
www.epa.gov/owow/tmdl/index.html