



What are TMDLs?

Water Protection Program fact sheet

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A Total Maximum Daily Load, also known as a TMDL, is a calculation of the maximum amount of a pollutant that a body of water can assimilate and not exceed the water quality criteria for that water. Missouri's water quality standards establish such criteria, or pollutant limits, to protect drinking water supply, fishing, swimming, aquatic life and other designated uses. In Missouri, the Department of Natural Resources develops TMDLs for waters that are not attaining these designated uses due to exceedances of the criteria; they are planning tools used to restore impaired streams, rivers, lakes and wetlands.

A water body is considered impaired when it fails to meet the water quality standards established by the department and approved by the U.S. Environmental Protection Agency. Section 303(d) of the federal Clean Water Act requires states to identify and list all impaired waters and the pollutants causing the impairments. A TMDL is then required for each water body and pollutant pair on the state's approved 303(d) List. The TMDL sets pollutant allocations and loading targets used by the department to establish permit effluent limits, or by citizen watershed groups for drafting plans to implement management practices that will restore water quality.

A TMDL identifies the potential or suspected pollutant sources in the watershed of the impaired water body and distributes the allowable pollutant loads among these various sources. The portion of the load distributed to point sources (e.g., sewage treatment plants) is the wasteload allocation, and the load distributed to nonpoint sources (e.g., pollutants carried by stormwater runoff) is the load allocation. A small portion of the allowable pollutant load is also reserved as a margin of safety to account for any uncertainties in scientific or technical understandings of water quality in natural systems.

The opportunity for citizen involvement in TMDL development is provided through the public notification process, which is required for all TMDLs. The department generally allows for a 45-day public comment period in which citizens may provide comments, clarification, or support for the plan. Public involvement can also occur through TMDL implementation, including development of TMDL implementation plans, watershed based management plans, or other effective solutions for reducing water pollution in their watershed. Citizen participation and cooperation is crucial for successful watershed management.

All EPA-approved TMDLs or those currently under development by the department can be found on the department's Water Protection Program webpage at dnr.mo.gov/env/wpp/tmdl/index.html.

For More Information

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