

Practitioners Handbook for Developing Watershed TMDLs

Background

Since 1995, some 33,000 TMDLs have been completed by the states and EPA. However, to address the ever growing number of impaired waterbodies requiring TMDLs, techniques are still needed to achieve a more nationally consistent and efficient approach for developing and implementing TMDLs. Grouping multiple impaired segments into a single, larger watershed TMDL development effort could provide added efficiencies to the overall TMDL development process. Watershed-based TMDLs can reduce effort per TMDL required for a variety of tasks typically undertaken in the TMDL process.

Watershed TMDLs provide the opportunity to better use the TMDL as a tool to identify cost effective options for reducing point and nonpoint source loads to restore impaired waterbodies to meet water quality standards. Some of the primary benefits of developing watershed TMDLs instead of individual segment-by-segment TMDLs include:

- Results in lower per-TMDL development costs
- Addresses greater number of TMDL pollutant-waterbody combinations
- Encourages efficient and effective use of resources and completion of tasks
- Captures the interaction between upstream and downstream sources and impacts
- Reduces the potential need for future TMDLs
- Provides a framework for more effective implementation
- Facilitates watershed-wide planning
- Facilitates use of innovative implementation options and integration with other watershed programs (e.g., watershed-based permitting, water quality trading)
- More easily addresses non-traditional point sources (e.g., stormwater, CAFOs)

Objective

EPA intends for this watershed-based TMDLs development guide to serve as a programmatic and technical resource for TMDL practitioners. Its goal is to promote development of TMDLs on a watershed basis, and in doing so to assist states realize a number of environmental and programmatic benefits over individual TMDLs. In summary, the document serves to further support EPA's programmatic efforts to integrate watershed approaches in a number of related water programs to effectively protect and restore water resources.

Description

The document outlines the basic technical issues related to watershed TMDLs, identifying the issues for practitioners to consider and tools and resources that can help them when planning for and developing watershed TMDLs. The document also identifies the benefits of developing watershed TMDLs as well as the obstacles and ways to address them. Finally, the document

evaluates the connections between watershed TMDLs and other water programs and identifies opportunities for integrating watershed TMDLs and their results into other watershed management efforts, such as watershed planning, permitting and water quality trading.

A highlight of the document is discussion of integrating watershed-based TMDLs with other technical watershed initiatives being promoted by EPA, such as watershed-based permitting, more quantitative watershed planning through Section 319, and water quality trading. Watershed TMDLs can facilitate and support the use of watershed approaches in all phases of watershed management (e.g., monitoring, permitting, nonpoint source control) to more effectively manage and restore water resources. Watershed TMDLs provide the quantitative analysis of sources that can be critical to successfully developing a water quality trading strategy or effectively assigning watershed-based permit effluent limits to meet water quality standards. They can also help to target monitoring activities by identifying key data gaps necessary to better understand the watershed conditions and source dynamics. Finally, watershed TMDLs can provide a strong foundation for the development of watershed plans under Section 319. Current guidelines for Section 319 watershed plans require more quantitative analyses of watershed sources and necessary load reductions. While a watershed plan would more broadly evaluate watershed conditions not subject to TMDLs (e.g., habitat alteration, flow, etc.), the watershed-based TMDL can provide important information on sources, associated pollutant loads and possible management options.

Draft for Public Review

The draft handbook will be made available to the public for review in September 2008. Visit our webpage (<http://www.epa.gov/tmdl>) to access the draft document after its release

Questions or Additional Information

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