

# TMDL KNOWLEDGEBASE CLEARINGHOUSE: A TOOL FOR TMDL DEVELOPERS

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## What is a TMDL?

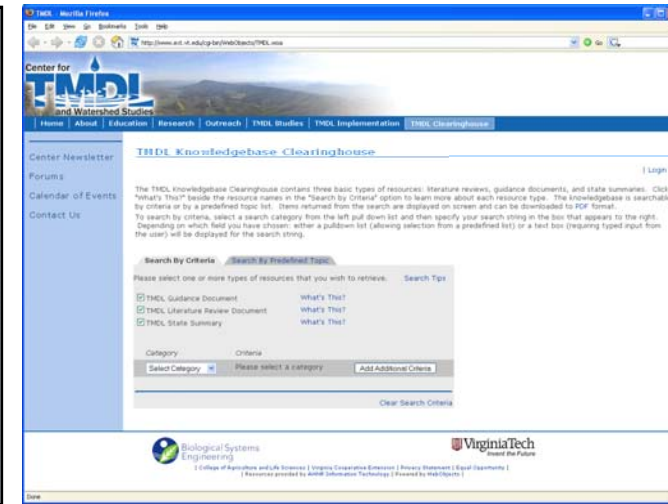
A TMDL is the maximum amount of a specific pollutant that a water body can receive without violating applicable water quality standards. Developing a TMDL involves conducting a watershed-scale study to identify the sources of the offending pollutant, quantifying the pollutant contribution from each source, and determining the pollutant reduction required to meet applicable water quality standards.

## Why are TMDLs needed?

The Clean Water Act classifies water bodies that do not meet water quality standards as "impaired," and requires TMDLs to bring these waters into compliance. According to the U.S. Environmental Protection Agency (EPA), over 40% of the assessed waters in the U.S. (some 20,000 river or stream segments, lakes, and estuaries) are impaired, primarily because of NPS pollution.

## What is the TMDL Knowledgebase Clearinghouse?

Constraints of time and resources, rapid advances in related science or engineering disciplines, and information overload often make it difficult for TMDL agency personnel, developers, and stakeholders to find the relevant information they need. The Center for TMDL and Watershed Studies has developed an online database to house TMDL-related documents in one central location. The Clearinghouse was funded in part by a grant by EPA. The searchable TMDL Knowledgebase Clearinghouse contains three types of resources: TMDL guidance documents, reviews and summaries of TMDL-related technical and trade literature, and state-by-state summaries of TMDL programs across the nation.



## Clearinghouse Resources



### TMDL Program Summaries

State-by-state TMDL program summaries include information about the state's Consent Decree status (is the program under court ordered compliance, several are), who conducts TMDL studies (state agency, consultants, other), what impairments have been addressed and what methods have been used (modeling, load-duration, etc.), a synopsis of the pertinent water quality standards, status of TMDL implementation, and links to pertinent agency websites.



### Literature Review Summaries

Each literature review document contains a summary of technical and trade literature on a given topic, as well as citations and abstracts for the reviewed articles. Summaries have been compiled for several topics including:

- Case studies for a range of impairments;
- Monitoring system design and data analysis;
- Application, appropriateness, and modifications of simulation models used to develop TMDLs (SWAT, HSPF, GWLF);
- Uncertainty in the TMDL process and related analysis; and
- TMDL implementation planning and execution.

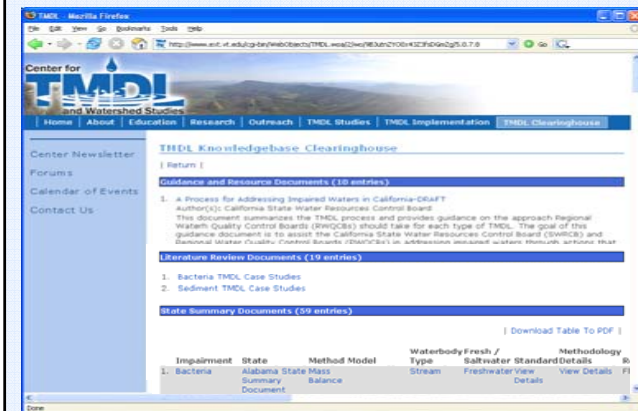
### TMDL Guidance Documents

TMDL development and TMDL implementation guidance documents have been collected from state and federal agencies. Sixty (60) guidance documents addressing a variety of issues are have been collected and are available through the Clearinghouse.

## Clearinghouse Structure

### Using the TMDL Knowledgebase Clearinghouse

Users can search the Clearinghouse by using drop-down menus to select specific criteria or by selecting combinations of predefined topics using a hierarchical tree structure. An example of the results of a search on the predefined topic "Impairments – bacteria" is shown below. The search returned entries in all three resource categories.



The TMDL Knowledgebase Clearinghouse can be accessed via the Center's website:

[www.tmdl.bse.vt.edu/site/knowledgebase/](http://www.tmdl.bse.vt.edu/site/knowledgebase/)