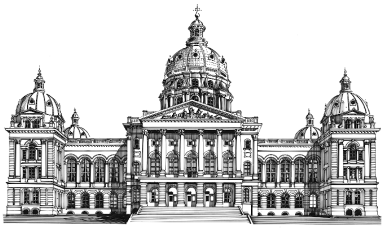
ISSUE REVIEW

Iowa Legislative Fiscal Bureau

Dennis Prouty
(515) 281-5279
FAX 281-8451



State Capitol
Des Moines, IA 50319
February 8, 2000

Water Quality and Total Maximum Daily Loads

ISSUE

In 1972, the federal government established the Total Maximum Daily Load (TMDL) requirement in the Clean Water Act. This ***Issue Review*** provides an overview of the Program and the implementation progress in Iowa.

AFFECTED AGENCIES

Department of Natural Resources

CODE AUTHORITY

Chapter 455B, Code of Iowa

BACKGROUND

The federal Clean Water Act requires each state to establish water quality standards. Waterbodies that do not meet the state water quality standard are considered impaired. Section 303(d) of the Clean Water Act requires states to submit a Section 303(d) list of impaired waterbodies every two years that includes:

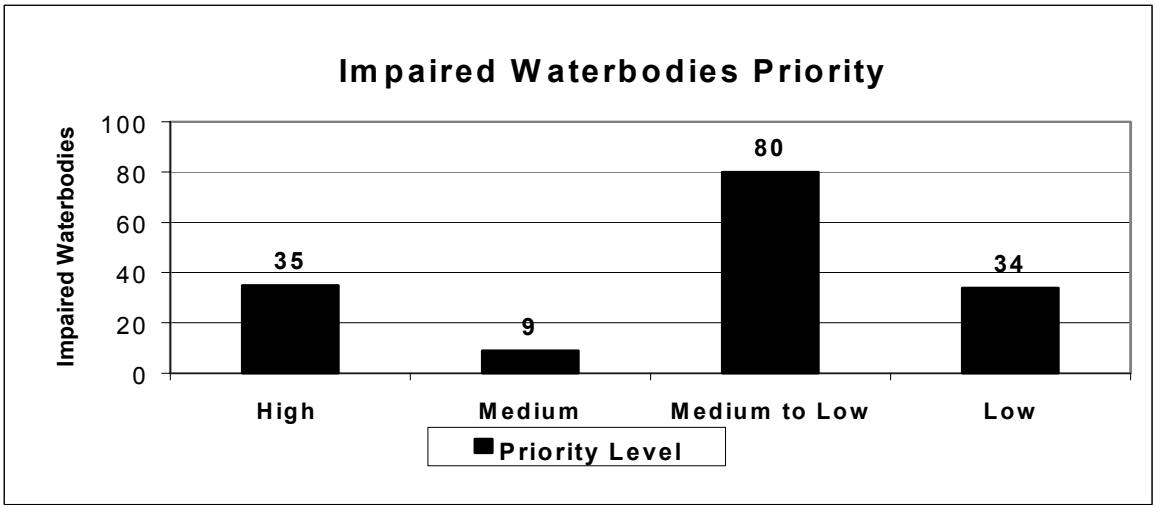
- Waterbodies with technology-based pollution control for point sources that are not sufficient to attain state water quality standards.
- Waterbodies with existing required federal, state, or local pollution control programs that are not adequate to address the impairment.
- The cause of the impairment is a pollutant.

For each of the Section 303(d) listed waterbodies, a total maximum daily load (TMDL) must be calculated for each pollutant causing the impairment. The TMDL calculations quantifies the source(s) of the pollutant(s) and the local reduction necessary to meet the state's water quality standards. Each TMDL must account for seasonal variations, potential new sources, and provide a margin of safety. The Environmental Protection Agency (EPA) must approve the list and the TMDL calculations. If a state does not submit an acceptable list, the Agency will develop the list and the total maximum daily load measures.

Each state must develop plans to achieve the necessary pollutant load reduction based on TMDL measures. Implementation plans can include regulatory and voluntary efforts.

CURRENT SITUATION

The Department of Natural Resources submitted the required lists and received EPA approval in 1992, 1994, and 1996. In 1998, the DNR submitted a list with 54 waterbodies. The EPA approved the original 54 and added 247 waterbodies they considered to be seriously polluted or unhealthy. After a public comment period, the EPA reviewed all data and comments and published a final list for Iowa that contained 159 waterbodies. The following table identifies the priority level of the listed waterbodies. A waterbody that has a high priority represents a high pollutant severity.



The Department has not developed total maximum daily load measures for any of the waters on the 1998 Section 303(d) list due to limited resources. Therefore, the EPA will develop TMDL measures for Iowa until the Department can implement the program. During 2000, the EPA or an EPA contractor will develop TMDL measures for the Cedar River, Rock Creek, and Corydon Reservoir.

BUDGET IMPACT

The following are costs incurred by other states and agencies with regards to developing TMDL measures:

- Long Island Sound in New York expended $20.0 million over a five-year period.
- Tallahala Creek in Mississippi expended $450,000 over a two-year period and required 5.00 FTE positions.
- Texas has expended $2.2 million over a five-year period and 8.00 FTE positions to develop one phosphorus TMDL measure.
- California estimates the average investment is $350,000 to calculate a TMDL measure of medium complexity and $1.1 million for each complex TMDL measure. The total TMDL program for FY 2000 is estimated at $9.1 million.
- Florida has allocated $1.2 million and 23.50 FTE positions for TMDL development. The cost to implement TMDL measures is estimated to cost an additional $700,000 and 12.00 FTE positions.

- South Carolina expended $1.9 million and 3.00 FTE positions to develop a TMDL measure for the Waccamaw River and Intercoastal Waterway.

Other costs associated with TMDL measures include the cost of implementation and monitoring. Another concern of the Department of Natural Resources is the additional cost from any future rule changes by the EPA. There has been discussion that all states will be required to adopt nutrient water quality standards by the year 2003. This would include standards for nitrogen and phosphorus that could significantly increase the number of waterbodies on the Section 303(d) list.

The Iowa General Assembly appropriated funding for 2.0 FTE positions for the implementation of TMDL measures for FY 2000 in House File 746 (Agriculture and Natural Resources Appropriations Act). Storm Water Permit Fees will fund these positions. The Department has filled one position and is in the process of filling the second one. Currently, there are no State or federal funds available to develop TMDL measures, acquire water quality data to calibrate water quality models, model development, or meet other technical needs.

The Department of Natural Resources is requesting and the Governor is recommending $153,000 for TMDL measure development for FY 2001. This amount is not sufficient to carry out all measure requirements but will be used to develop a TMDL technical team and to initiate work on simple TMDL measures.

The Department of Natural Resources requested information from other states on the cost to implement TMDL. The following table summarizes the information submitted to the Department.

State	Cost
Illinois	$1.2 million per year and 8.0 FTE positions
Kansas	$300,000 per year and 3.0 FTE positions
Missouri	$1.8 million per year and 25.0 FTE positions
Nebraska	$500,000 per year for 10 years and 8.0 FTE positions

Source: Department of Natural Resources

STAFF CONTACT: Deb Kozel (Ext. 16767)