



MARYLAND DEPARTMENT OF THE ENVIRONMENT

1800 Washington Boulevard ● Baltimore MD 21230
410-537-3000 ● 1-800-633-6101

Robert L. Ehrlich, Jr.
Governor

Kendl P. Philbrick
Secretary

Michael S. Steele
Lt. Governor

March 15, 2004

Fellow Marylanders:

What are TMDLs? And why do we have to do them?

This issue of **EnviroMatters** provides brief answers to both questions. Like other states, Maryland has been working on TMDLs (for Total Maximum Daily Load) for several years. The Department of the Environment has worked closely with the EPA to develop a realistic timetable for this frequently cutting-edge science. By 2006, we expect to finish the monitoring and land-use evaluation that will permit completion of a large number of TMDLs for bacteria as well as complete TMDLs for other pollutants.

I hope you find this issue of **EnviroMatters** informative. Because of the importance and complexity of this work, I plan to explore the subject of TMDLs further in future issues. Your comments and suggestions are welcome.

Sincerely,

Kendl P. Philbrick
Secretary

TMDLs - Cutting-Edge Science to Measure Water Quality

Bodies of water, whether the Chesapeake Bay, the Savage River in Western Maryland or an old mill pond in Dorchester County, have the capacity to handle pollutants - up to a certain level.

But how much of a bad thing is too much? If the bad thing is nitrogen in Mattawoman Creek in Charles and Prince George's counties, too much is any amount over 1,544 pounds per month during the six months when flow in the creek is low, including 164 pounds from runoff. More than that will deplete the oxygen supply in the creek. That is the conclusion reached by the Department of the Environment last year as part of its measurement of total maximum daily loads (TMDLs) for rivers and streams in the state.

TMDLs, which measure any pollutant that causes a problem, not just nitrogen, are a sophisticated tool that will help us to make decisions about activity along waterways and in surrounding watersheds. Once we know the maximum amount of a particular material that can be introduced without harming water quality, we can evaluate planned uses (a new subdivision or a small wastewater treatment plant, for example) and decide what has to be done to make sure that water quality is not impaired.

Developing TMDLs is a painstaking and time-consuming process. There are nearly 130 bodies of waters (including lakes and reservoirs) in Maryland that are impaired by nutrients, sediments, toxic materials, acidity or fecal coliform bacteria. Rarely can we rely on well-established science to make decisions; this work is on the cutting edge of environmental studies and we are inventing the science as we conduct our assessments. As we gain knowledge and are able to draw on lessons learned in similar studies of the Chesapeake Bay, however, we will be able to accomplish more in a shorter time.

When the bulk of the work is done - by 2011 - we will have an extraordinary ability to evaluate the complex interactions of human activity in Maryland's watersheds. We will have precise measures for pollutants in virtually all the lakes, streams and reservoirs in the state and thus have the means to make decisions that will keep our waters clean and safe. Most important, businesses and individuals in every watershed would know exactly what they have to do to achieve Maryland's clean water goals and what their share of the responsibility is.