

Chesapeake Bay TMDL Status

by Ron Entringer

What is a TMDL?

A TMDL or Total Maximum Daily Load is a calculation of the maximum amount of a pollutant that a waterbody can receive and still maintain water quality standards, and an allocation of that load to the various sources of that pollutant.

A TMDL allocates loads to pollution sources, in two categories: a Waste Load Allocation (WLA) which limits regulated sources, such as wastewater treatment plants and general stormwater permits for municipal, construction or industrial activities; and, a Load Allocation, (LA) which accounts for non-regulated (non-point) sources.

New York has developed TMDLs with other states for Long Island Sound (Connecticut, nitrogen) and Lake Champlain (Vermont, phosphorus).

In 2000, New York agreed to help clean up the Chesapeake Bay by 2010. If that deadline is not met, a TMDL would be developed by May 2011, as required by a court decision. Because most of the Chesapeake Bay remains impaired (fails to meet Maryland or Virginia standards for dissolved oxygen, chlorophyll and clarity) planning has begun on a TMDL, which would set pollutant (nitrogen, phosphorus and sediment) budgets needed to achieve standards.

The US Environmental Protection Agency (EPA), responding to a request from Maryland to define and accelerate the TMDL process, has stated that the TMDL will include tributary states such as New York, but with more flexibility (less specificity) than required for states with tidal waters – Maryland, Virginia and Delaware. The EPA will commit its best efforts to meet an accelerated December 2010 timeframe, but its “first priority is to develop a TMDL that fulfills all necessary legal requirements and is an effective tool to accelerate Bay restoration,” (Donald Welsh, regional administrator, EPA Region 3, September 11, 2008 letter to John Griffin, secretary, Maryland Department of Natural Resources).

EPA to Issue Load Allocations

To meet the December 2010 date, the EPA is working with the six states in the Bay watershed on re-evaluation of Bay pollutant loads and allocation among states of loads. The NYS Department of Environmental Conservation (DEC) is currently engaged in this interstate allocation process to assure that New York receives an equitable allocation of nitrogen, phosphorus and sediment loads. The EPA has set a schedule of June 2010 for preparation of a draft TMDL, supported by revised state tributary strategies. The NYSDEC plans to involve the public along the way, as was done during the preparation of the initial tributary strategy.

The EPA will be responsible for issuing the TMDL, but New York will

have input in proposing allocations for the New York watershed area. The EPA expects that the revised New York tributary strategy will demonstrate how to achieve the load reductions specified in the TMDL. The EPA may include Waste Load Allocations for some individual wastewater treatment plant discharges listed in the Bay TMDL, which would require the NYSDEC to set discharge limits for these plants.

A growing realization that the Bay cleanup effort will be significantly more difficult than recently thought is complicating the reallocation of pollutant loads among states and to sources within states. The Chesapeake Bay Program is completing significant improvements to the watershed model, which will more accurately assign loads to New York sources and better account for loads near the Bay and from atmospheric sources. The updated model shows less nutrient load from New York, but more overall load to the Bay. Also, the updated watershed model is based on a more representative hydrologic period and more realistic accounting of reductions attributed to best management practices, so the level of effort in the tributary strategies prepared by the states will not achieve as much nutrient load reduction. As a consequence of these findings, there needs to be even more reduction of pollutant loads to achieve water quality standards. The NYSDEC will continue to work with the EPA to find a balance between meeting Clean Water Act requirements and setting reductions in the TMDL that are feasible and equitable for New York.

More information on the Bay TMDL and watershed model estimation of loads can be found by reading the Bay Journal, published by the Alliance for Chesapeake Bay: specifically, articles at <http://bayjournal.com/article.cfm?article=3349> and, <http://bayjournal.com/article.cfm?article=3470>.

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This outflow discharge into the Chemung River comes from the 9.5 MGD Lake Street Treatment Plant in Elmira. The Chemung River is part of the Susquehanna River watershed which flows to the Chesapeake Bay and is included in the nutrient load reduction effort.

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