



The Upper Susquehanna River and the Chesapeake Bay Pollution Diet

Table 1. NY delivered load allocations for N, P, and Sediment based on model predictions

Nitrogen Delivered to Bay (million lbs/year)	Phosphorus Delivered to Bay (million lbs/year)	Sediment Delivered to Bay (million lbs/year)	Year
10.54	0.80	327	2009 (Current)
9.60	0.66	307-324	2017 Phase I Allocation (60% of Goal)
8.77	0.57	293-322	2025 Phase I Allocation (Goal)
9.26	0.57	293	2025 NY TMDL Phase II Goal

Utilizing a complex computer model, the Environmental Protection Agency (EPA) through the Chesapeake Bay Program developed a total annual load allocation for nitrogen (N), phosphorus (P) and sediment, by state, that it considers to be the maximum quantities that the Chesapeake Bay can receive and meet water quality standards. This is called a Total Maximum Daily Load or “TMDL”. It is like a pollution diet for the Bay.

The Bay states were required by the EPA to develop a Watershed Implementation Plan (WIP) that both met the target allocations and provided reasonable assurance that reductions will be achieved and maintained, particularly for non-permitted sources like runoff from agricultural lands (non point source). If they could not, the EPA threatened backstops actions to ensure progress. Suggested EPA mandated practices for agriculture included: *farms of any size being regulated as CAFOs; farms of any size required to develop a Comprehensive Nutrient Management Plan (CNMP); large farms required to use Precision Feed Management; farms of any size required to have a manure storage and be prohibited to spread manure during the winter; manure applied to crop fields required to be injected; and all farms required to have ammonia emission controls on their facilities.*

One of the key steps to assuring progress toward TMDL goals is the establishment of two-year milestones within the WIP. The milestones are key check-in points on the way to having all practices in place by 2025 to restore the Bay. They will be evaluated and modified throughout the TMDL to gauge how New York is progressing toward its goals. The EPA worked with New York conservation partners such as the DEC, USC, Cornell, Ag and Markets, NRCS, NY Farm Bureau, and the Northeast Dairy Producers Association during the past several months to address what the EPA perceived to be deficiencies in New York’s draft WIP. See Table 1. New York’s final plan resulted in loads that are 5% and 2% over the EPA’s N and P allocations respectively. They are 14% under the sediment allocation, however. The EPA closed the gaps between New

York's WIP and EPA allocations with an aggregate backstop for permitted waste treatment facilities. In December, 2010 EPA officials accepted the state's final Phase I WIP to reduce nutrients and sediment with the backstop for waste treatment facilities.

One of the key improvements in the final plan compared to the draft plan was demonstrating the strength of New York's Agricultural Environmental Management and CAFO programs described in detail in the WIP and two-year milestones. This plan "reasonably assured" the EPA that New York's voluntary approach with regulation for larger farms is working to conserve water quality in New York's portion of the Chesapeake Bay watershed. For now, the EPA removed backstop measures for the Agricultural sector. However, as with all sectors, they will regularly monitor the state's programs to make sure they implement the pollution control plans, remain on schedule for meeting water quality goals and achieve two-year milestones. This oversight will include program review, denying permits, and targeting compliance and enforcement actions as necessary to meet water quality goals

New York will be required to submit a draft version of Phase II of the WIP in November of 2011. In the second phase, the EPA has suggested nutrient and sediment allocations be set at the county or small watershed scale. The Upper Susquehanna Coalition of Soil and Water Conservation Districts (USC) will be making the case to the NYSDEC and EPA that a robust WIP can be developed without having to subject each county to an individual allocation. We propose a basin-wide approach, with watershed teams, cooperation between counties, and targeting the best projects in the optimal locations to minimize costs while maximizing reductions to the Bay. This is the approach that has been used successfully over the past decade.

In the short term, the USC, NYSDEC and other agencies will begin implementing the WIP, tracking progress and reporting to the EPA. Results over the next few years will determine if there needs to be changes in the WIP to meet the TMDL. If you have any questions please feel free to contact your local Soil and Water Conservation District or visit www.u-s-c.org for links to information about the Chesapeake Bay Program.