

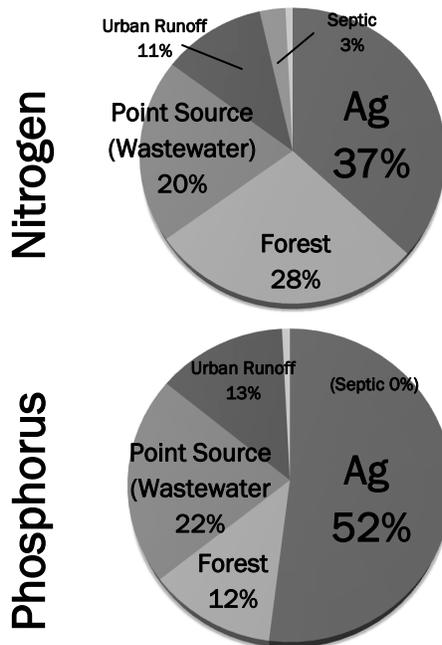


# Chesapeake Bay Program TMDL

Update for the New York Agricultural Community

## TMDL DEFINED

The Chesapeake Bay and its many tributaries from 7 jurisdictions (New York, Pennsylvania, Delaware, Maryland, Virginia, West Virginia, and the District of Columbia) have nutrient and sediment contributions from the air, water and land. [The watershed's biggest challenge is nutrient enrichment, which fuels the growth of algae blooms that impact water quality and aquatic life.](#) Agriculture is believed to be a major contributor of nitrogen and phosphorus in the watershed. The figure below provides New York contributions estimated by the EPA's Chesapeake Bay Model from each source (v5.3.2 2012 Progress).



## New York State nutrient contributions from major source categories based on EPA's Chesapeake Bay Model 2012 Progress Run.

In 2009, President Barack Obama signed an Executive Order that recognizes the Chesapeake Bay as a national treasure and empowered the United States Environmental Protection Agency (EPA) to set a more demanding timetable to coordinate efforts by federal departments and state governments to reduce pollutants flowing into the Bay. It gave the EPA enforcement authority if states miss established goals.

This order works in conjunction with the Clean Water Act Section 1313 that addresses impaired waters by requiring states to identify waters at risk and establish Total Maximum Daily Loads (TMDLs) to protect those waters

with oversight from the EPA. [The TMDL is considered to be the maximum quantities that the Bay can receive from all nutrient and sediment sources and still meet water quality standards.](#) It is a pollution diet for the Bay that identifies where loads can be reduced from nonpoint sources such as agriculture or point sources such as wastewater treatment plants.

Utilizing a complex computer model, the EPA, through [the Chesapeake Bay Program, developed a TMDL for each state's nitrogen \(N\), phosphorus \(P\) and sediment loads.](#) The EPA is requiring states to put pollution controls in place by 2025, with at least 60 percent of the actions completed by 2017. Please see the table on the following page for a summary of nutrient and sediment progress with NY WIP planning targets for 2017 and 2025.

## WATERSHED IMPLEMENTATION PLANS

[Each Bay state was required to develop a Watershed Implementation Plan \(WIP\)](#) that meets the target allocations and provides reasonable assurance that reductions will be achieved and maintained, especially for non-permitted sources such as small farms. In January 2013, the NYS Dept. of Environmental Conservation (DEC) and its NY agricultural conservation partners submitted an updated WIP for New York to reduce nutrients in agricultural runoff, urban stormwater,

and sewage treatment plants. The second phase of the WIP targeted nutrient and sediment loads to a finer scale and more clearly communicated expectations to local decision-makers, conservation districts, and other stakeholders.



### TMDL Defined:

- TMDL is short for "Total Maximum Daily Load"
- It is a pollution diet for the Chesapeake Bay
- EPA has given seven Jurisdictions, including NY, allocations for nitrogen, phosphorus, and sediment
- Pollution controls need to be in place by 2025 with 60% of implementation by 2017

### Watershed Implementation Plans and Reasonable Assurance:

- EPA required each state to develop Watershed Implementation Plans
- Plans need to meet EPA target allocations, provide "reasonable assurance" that reductions will be achieved and maintained, and develop 2-year milestones for evaluation
- NY Plan demonstrates strength of conservation programs in Upper Susquehanna Basin





Devilred Loads by Year of Progress Run		2009	2010	2011	2012	2013	2014	Milestone Target 2015	60% of goal by end of 2016	Revisit goals in 2017 and monitor progress through 2024				WIP Goal 2025
Nitrogen	Million lbs/yr	10.72	10.58	10.28	11.11	10.91	?	10.49	9.86	Milestone	Milestone	Milestone	Milestone	9.28
Phosphorus		0.956	0.925	0.878	0.896	0.836	?	0.768	0.790	Milestone	Milestone	Milestone	Milestone	0.680
Sediment		332	326	315	317	321	?	315	315	Milestone	Milestone	Milestone	Milestone	304

NY nutrient and sediment progress with NY WIP planning targets for 2017 and 2025.

Sources of data for wastewater changed between 2011 and 2012. Due to the more complete data set in 2012, higher wastewater loads were credited and reflected in model estimates.

*“The WIP provides a detailed overview of the **Agricultural Environmental Management Program**, which covers approximately 95 percent of the dairies in the state. The WIP also discloses a comprehensive list of funds and cost estimates for its **voluntary programs**.”*

*A Report Card for Phase I Watershed Implementation – Center for Progressive Reform January 2011*

*“The WIP details in-depth strategies that support New York’s BMP Implementation rates. . . strategies **provide reasonable assurance** that New York can and will **implement its WIP commitments**.”*

*Summary of New York Final WIP Evaluation – Environmental Protection Agency December 29, 2010*

**REASONABLE ASSURANCE**

New York’s Phase II WIP demonstrates the strength of New York’s Agricultural Environmental Management (AEM) and CAFO programs described in detail in the plan and two-year milestones. The milestones are key check-in points on the way to having all practices in place by 2025 to restore the Bay. [This plan “reasonably assures” the EPA that New York’s voluntary approach with smaller farms and regulation for larger CAFO farms is working to reduce nutrient runoff in the immediate and long term.](#) The plan aims to achieve the reductions in N, P, and sediment loads through continued implementation of farmstead and field conservation practices aligned with farm goals and watershed needs. Practices such as cover crops, conservation tillage, crop nutrient management, manure storage, precision feed management, grazing, fencing livestock out of streams, grass buffers, and controlling runoff from barnyards that are implemented by farms are credited by the Chesapeake Bay Watershed Model toward the nitrogen, phosphorus, and sediment reduction goals for New York. The EPA is continuously evaluating New York’s progress toward planning targets though the EPA will engage particularly during the two-year milestones evaluations, the 2017 midpoint assessment, and the upcoming Phase III WIP Development. Achieving the reduction outlined in the plan is a heavy lift. As New Yorkers, we are all in this together, so collaboration by local farmers, Conservation Districts, NRCS, Cornell Cooperative Extension, and private industry will continue to be essential in determining, installing, and maintaining the best conservation practices for each situation.



**BACKSTOP MEASURES**

Federal actions can be taken at any time for insufficient WIP implementation or pollution reductions. [While it would take significant regulatory changes to enforce action, potential measures could include:](#) expanding coverage of NPDES permits to sources that are currently unregulated, increase oversight of state-issued NPDES permits, increasing federal enforcement and compliance, prohibiting new or expanded pollution discharges, redirecting EPA grants which would affect implementation, revising water quality standards to better protect local and downstream waters and discounting N, P, and sediment reduction progress if a jurisdiction cannot verify proper installation and management of controls.

**WHAT’S NEXT FOR THE TMDL?**

[In the short term, progress on the WIP goals starts by working together locally to advance conservation practices on the land.](#)

The Upper Susquehanna Coalition, the Natural Resources Conservation Service, the Department of Environmental Conservation and other agencies are tracking progress and reporting to the EPA to ensure NY gets credit for all practices that are installed. Results over the next few years will determine how the WIP will be modified in 2017 to meet the TMDL.

If you have any questions please contact your local Soil and Water Conservation District or visit the USC website ([www.u-s-c.org](http://www.u-s-c.org)) for links to information about the Chesapeake Bay Program.