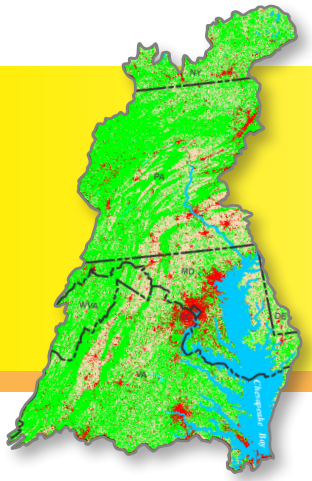


2012-2013 Milestone Commitments

to Reduce Nitrogen, Phosphorus and Sediment Pollution to the Chesapeake Bay

Chesapeake Bay Program
A Watershed Partnership

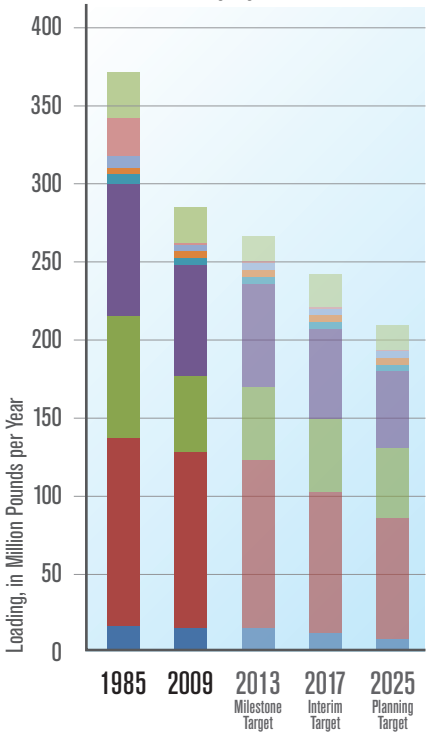
Overview

In 2008 the Chesapeake Executive Council charged the seven jurisdictions to develop a two-year milestone process for reducing their respective nitrogen, phosphorus and sediment contributions to the Chesapeake Bay and to track the pace of those reductions. Two-year milestones provide short-term objectives and have become part of the overall Total Maximum Daily Load (TMDL) accountability framework established in 2010 to assess progress on restoration goals. When fully implemented, the seven Watershed Implementation Plans (WIPs) will ensure that practices are in place by 2017 to reduce the load by 60 percent. By 2025, all practices necessary to meet the target loading levels will be in place. The two-year milestones allow jurisdictions the opportunity to adapt implementation strategies as outlined in their WIPs as necessary to meet those goals and ultimately achieve applicable water quality standards and restore the Bay. **The total 2012-2013 milestone commitments for all 7 jurisdictions and EPA reduce nitrogen by 16.28, phosphorus by 1.1, and sediment by 482 million pounds by the end of 2013, compared to the 2009 baseline.**

Pollutant Reduction Progress and Future Targets by Jurisdiction

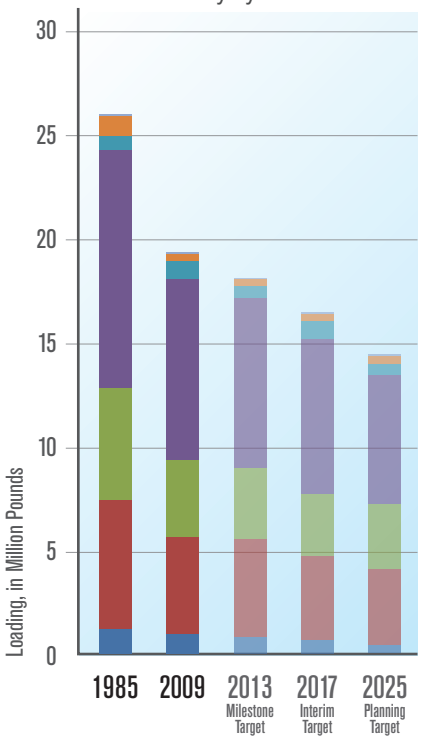
Nitrogen

Simulated Nitrogen Loads Delivered to the Bay by Jurisdiction*



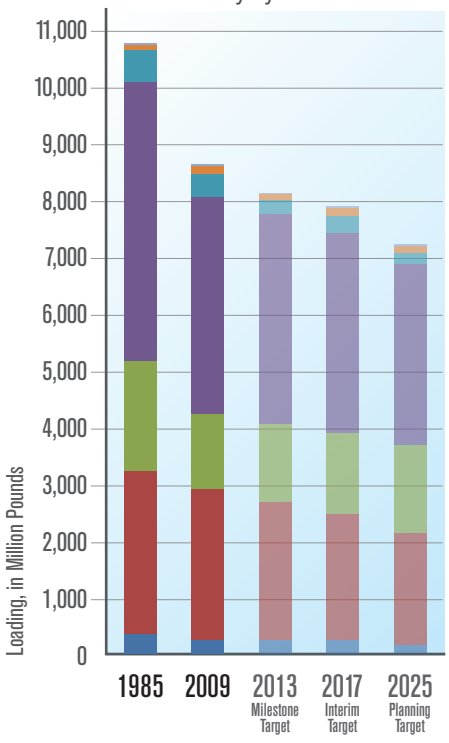
Phosphorus

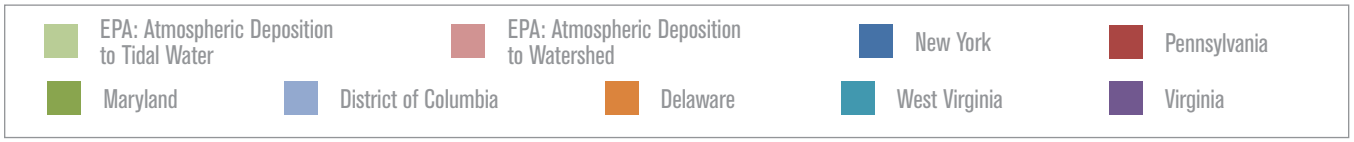
Simulated Phosphorus Loads Delivered to the Bay by Jurisdiction*



Sediment

Simulated Sediment Loads Delivered to the Bay by Jurisdiction*





* Loads simulated using 5.3.2 version of Watershed Model and wastewater discharge data report by Bay jurisdictions.

Milestone Summary Documents:

The seven Bay watershed jurisdictions have developed summary documents that highlight their 2012-2013 milestone commitments to reduce nitrogen, phosphorus and sediment pollution. The Environmental Protection Agency (EPA) has developed a document that highlights their 2012-2013 milestone commitments to reduce atmospheric deposition of nitrogen. All of the documents contain the following common elements:

- **Reduction Milestone:** The first page of the summary documents includes the total load reduction anticipated for atmospheric deposition of nitrogen for EPA, and for nitrogen, phosphorus and sediment that each jurisdiction is expected to achieve by the end of 2013 based on the computer simulations from the Chesapeake Bay Program Partnership suite of models. As highlighted in the Milestone Guide published July 2011, EPA and jurisdictions will be held accountable to the overall simulated load reductions highlighted in the overview paragraph and their 2012-2013 commitments highlighted at the end of each summary document.
- **Pollutant Reduction Progress and Targets:** The stacked bar charts in each of the summary documents highlight the computer-simulated pollutant reduction progress by source sector (Agriculture, Urban Runoff, etc.) for each jurisdiction and EPA in 1985 and 2009, the anticipated progress by source sector for 2013 and the target loads to be achieved in 2017 and 2025. While EPA and the jurisdictions highlight the anticipated progress for 2013 by source sector, EPA will only hold jurisdictions accountable to the overall simulated reduction loads in the overview paragraph and the commitments at the end of each summary document. As agreed to by the Chesapeake Bay Program Partnership:
  - The anticipated progress for each 2013 milestone target was calculated using a 2010 land use simulation.
  - In 2013 actual implementation results will be reported to the Chesapeake Bay Program Office and the computer simulation pollutant reduction progress will be calculated using a projected land use for 2013 which could result in adjustments to projected pollution loads in the milestones.
  - For wastewater discharges, progress for 2009 and subsequent years is measured using actual flow information. The 2013 targets for wastewater discharges, however, are developed on projected flows, using methods identified by each jurisdiction. Both progress and targets are influenced by annual weather conditions. However, the indicator does demonstrate long-term progress to reduce wastewater pollution.
- **Milestone Highlights:** Jurisdictions and EPA provide an additional explanation on the information included in the summary document.
- **Pollutant Reduction Controls, Practices and Actions in the 2012-2013 Milestone Target Commitments:** Jurisdictions highlight a few key practices that are anticipated to be implemented during the milestone time frame. A full listing of the anticipated practices to be implemented can be found on Chesapeake Stat at http://stat.chesapeakebay.net/milestones2013. EPA supports adaptive management of two-year milestones so long as the overall pace of pollutant reductions remains consistent with a Bay watershed jurisdiction's WIP commitments and remain on pace to ensure that practices are in place by 2017 to reduce the load by 60 percent by 2017, and that 100% of the pollution control measures are in place by 2025.
  - The Chesapeake Bay Partnership (CBP) recognizes that there are practices and controls that are currently being implemented but that have, for a variety of reasons, not been credited. Practices, once identified and verified as being implemented in 2006 or later, will be credited the year they are verified. The partnership is also aware that there are reported practices which receive credit in the Chesapeake Bay Program models but are no longer functioning or in place. The partnership's Verification Subcommittee is developing protocols to enhance the accuracy of practices reported to the CBP models.

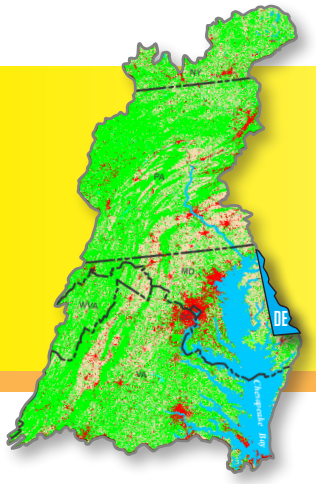
[1] USEPA (2011) Guide for Chesapeake Bay Two-Year Milestones for Water Quality. July 6, accessed at, http://www.epa.gov/reg3wapd/pdf/pdf_chesbay/StateMilestones/2year_milestoneguidecomments70611.pdf

- Each of the jurisdictions has implemented practices and controls that are likely to reduce nutrient or sediment pollution but for which a scientifically determined pollution reduction rate has either not been established or requires adjustment. Practices and controls established in 2006 or later will be credited in future years once the pollution reduction rate has been established.

- **2012-2013 Commitments:** Jurisdictions and EPA highlight a few key commitments that are anticipated to be completed during the milestone time frame. A full listing of the 2012-2013 commitments can be found on the weblink provided in the summary document or at http://www.epa.gov/reg3wapd/tmdl/ChesapeakeBay/EnsuringResults.html?tab2=1 under the tab "Two-year Milestones".

Chesapeake Bay Milestone Highlights:

EPA and the seven Bay Watershed Jurisdictions continue to make progress to meet the water quality goals of the Chesapeake Bay TMDL. The charts above show the continued progress, using computer simulation, in reducing nitrogen, phosphorus and sediment loads to the Chesapeake Bay watershed and its tributaries. Each jurisdiction has outlined their path to achieving the reductions required from the Chesapeake Bay TMDL in their Phase I and Phase II WIPs which can be found at http://www.epa.gov/reg3wapd/tmdl/ChesapeakeBay/EnsuringResults.html?tab2=1. The two-year milestones are the incremental steps taken by each jurisdiction to ultimately achieve applicable water quality standards and restore the Chesapeake Bay.



Delaware's

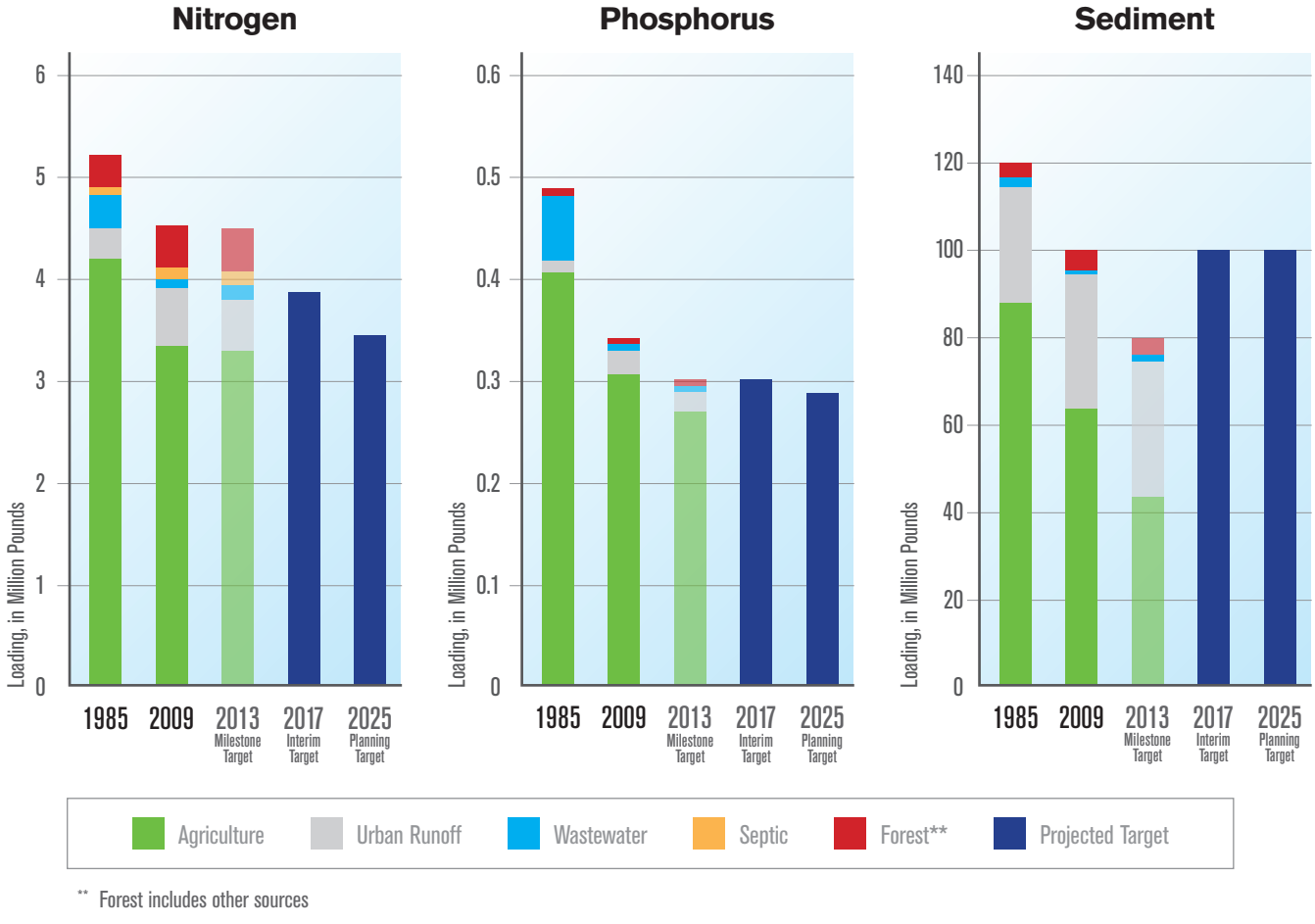
2012–2013 Milestone Commitments to Reduce Nitrogen, Phosphorus and Sediment

Chesapeake Bay Program
A Watershed Partnership

Overview

In 2008 the Chesapeake Executive Council charged the seven jurisdictions to develop a two-year milestone process for reducing their respective nitrogen, phosphorus and sediment contributions to the Chesapeake Bay and to track the pace of those reductions. Two-year milestones provide short-term objectives and have become part of the overall Total Maximum Daily Load (TMDL) accountability framework established in 2010 to assess progress on restoration goals. When fully implemented, the seven Watershed Implementation Plans (WIPs) will ensure that practices are in place by 2017 to reduce the load by 60 percent. By 2025, all practices necessary to meet the target loading levels will be in place. The two-year milestones allow jurisdictions the opportunity to adapt implementation strategies as outlined in their Watershed Implementation Plans as necessary to meet those goals and ultimately achieve applicable water quality standards and restore the Bay. **Delaware's 2012-2013 milestone commitments reduce nitrogen by 48,149 pounds, phosphorus by 42,702 pounds, and sediment by 18,731,484 pounds by the end of 2013, compared to the 2009 baseline.**

Delaware's Pollutant Reduction Progress and Future Targets by Source Sector



** Forest includes other sources

For more information, contact Jennifer Walls, 302.739.9939, jennifer.walls@state.de.us

Milestone Highlights:

Delaware's 2012-2013 Milestones continue to decrease pollutant loads so that the jurisdiction will be on track to achieve 60% of the reductions by 2017. These goals call for the increased implementation of numerous nonpoint source best management practices, especially in the agriculture sector (see below for a highlight of key numeric targets). Additionally though, the milestones assume that all of the wastewater treatment facilities will be operating at their permitted loads, so it appears the nitrogen loads may actually increase slightly. There are no plans however, for these facilities to discharge at those levels within the planned period and if they do, increases may be offset by reductions from other sectors.

Pollutant Reduction Controls, Practices and Actions in 2012-2013 Milestone Target Highlights

Pollutant Controls, Practices, and Actions	Progress through 2011	2013 Targets
Agriculture		
Commodity Cover Crops	6,772 acres/yr	10,249 acres/yr
Cover Crops	41,289 acres/yr	26,560 acres/yr
Cropland Irrigation Management	0 acres	75,000 acres
Grass Buffers	743 acres	1,659 acres
Forest Buffers	2,226 acres	3,185 acres
Wetland Restoration	588 acres	1,145 acres
Urban Runoff		
Bioretention	35 acres	38 acres
Wet Ponds and Wetlands	5,750 acres	5,956 acres
Septic		
Septic Connections	1 system	477 systems
Wastewater + Combined Sewer Overflow		
Wastewater Facilities Meeting Water Quality Standards in Chesapeake Bay[1] (Cumulative number and percentage of facilities)	0 / 0%	2 / 50%

For the full details of Delaware's target implementation milestones, please see http://stat.chesapeakebay.net/milestones2013DE

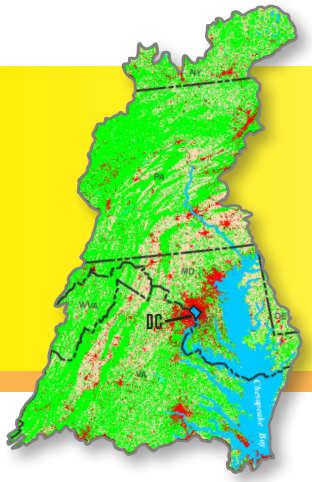
2012 – 2013 Commitment Highlights

- Promulgate revised and updated sediment and stormwater regulations: 2012
- Promulgate revised and updated on-site wastewater regulations: 2012
- Coordinate federal and state funding of the most effective conservation practices: 2012
- Lead efforts to correctly determine the quantity and nutrient content of Delmarva poultry litter: 2012
- Examine the best approach for a Certainty Program in Delaware: 2012
- Assess the use of "Decision Nutrient Management" for Delaware: 2012
- Establish baseline loadings and retrofit opportunities on federal lands: 2012
- Develop and implement a communications marketing plan: 2012
- Revise and renew NPDES permits for Invista and the towns of Bridgeville and Seaford: 2013
- Adopt statewide off-set regulations: December 2013
- Promulgate DDA's regulations allowing "spray on demand" disposal of treated wastewater: 2013
- Assess model credit for urban fertilizer phosphorus bans in neighboring states: 2013

For the full details of Delaware's programmatic milestones, please see http://www.dnrec.delaware.gov/swc/wa/Pages/DE-WIP-Phase-II-Info.aspx

[1] based on permits with effluent limits in effect that meet DO and SAV/clarity standards

For more information, contact Jennifer Walls, 302.739.9939, jennifer.walls@state.de.us



District of Columbia's

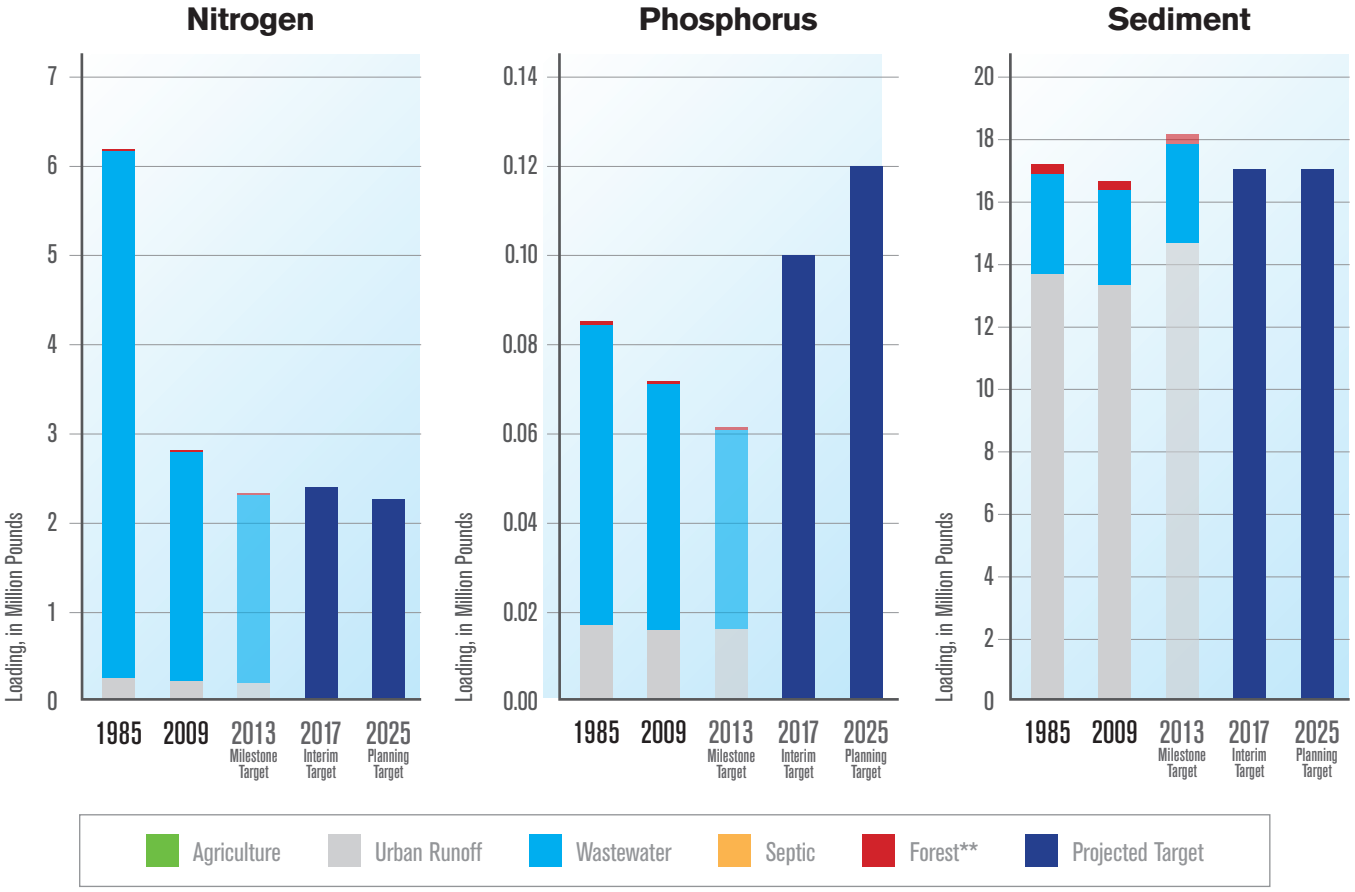
2012–2013 Milestone Commitments to Reduce Nitrogen, Phosphorus and Sediment

Chesapeake Bay Program
A Watershed Partnership

Overview

In 2008 the Chesapeake Executive Council charged the seven jurisdictions to develop a two-year milestone process for reducing their respective nitrogen, phosphorus and sediment contributions to the Chesapeake Bay and to track the pace of those reductions. Two-year milestones provide short-term objectives and have become part of the overall Total Maximum Daily Load (TMDL) accountability framework established in 2010 to assess progress on restoration goals. When fully implemented, the seven Watershed Implementation Plans (WIPs) will ensure that practices are in place by 2017 to reduce the load by 60 percent. By 2025, all practices necessary to meet the target loading levels will be in place. The two-year milestones allow jurisdictions the opportunity to adapt implementation strategies as outlined in their Watershed Implementation Plans as necessary to meet those goals and ultimately achieve applicable water quality standards and restore the Bay. **The District of Columbia's 2012-2013 milestone commitments are to reduce nitrogen by 394,069 pounds and phosphorus by 9,130 pounds by the end of 2013, compared to the 2009 baseline.**

District of Columbia's Pollutant Reduction Progress and Future Targets by Source Sector



** Forest includes other sources

For more information, contact Diane Davis, 202.741.0847, diane.davis2@dc.gov

Milestone Highlights:

The nitrogen chart above shows a dramatic decline in nitrogen between 1985 and 2009. This decrease is due to the hard work by DC Water in upgrading the Blue Plains Advanced Wastewater Treatment Plant. The District is below its allocated amount of phosphorus and the amount will continue to decline slightly over time; not increase as the above phosphorus graph illustrates. Sediment was added to the District's current load during the most recent updates to the Chesapeake Bay Program Partnerships Watershed model, which can be seen in the above graph. The District is an urban environment and is continuing to implement BMPs which will slowly decrease the amount of sediment entering the Chesapeake Bay Watershed.

Pollutant Reduction Controls, Practices and Actions in 2012-2013 Milestone Target Highlights

Pollutant Controls, Practices, and Actions	Progress through 2011	2013 Targets
Expand Urban Tree Canopy		
Plant 4,150 trees (30 acres) per year	14,740 trees planted 2009-2011	23,040 trees
Increase urban tree canopy coverage by 5 percent (from 35% to 40%, which translates to 8600 trees per year) in 25 years	57 % of 2011 goal obtained	31,940 trees
Low-Impact Development (LID) Practices		
RiverSmart Homes: Install 600 rain gardens	122 installed 2009-11	722 rain gardens
Install 1,500 rain barrels	975 Rain barrels installed 2009-11	2475 rain barrels
Plant 1,000 shade trees	Not previously reported, 531 trees in 2010	1000 trees
RiverSmart Schools: Retrofit 4 schools with LID practices	Not previously reported, previously worked with 11 schools since 2009, 45 in total	Retrofit 4 schools with LID practices
RiverSmart Washington demo project: retrofit 22 acres with LID [to Max extent practical]	Not a previous milestone, first time project	Retrofit 22 acres with LID [to Max extent practical]
Build Green Roofs: Install 140,000 sq ft of green roofs	1,300,000 sq feet	1,440,000 sq feet of green roofs
Retrofit 500,000 sq ft of DDOT impervious surfaces	Not previously tracked	500,000 sq ft of additional impervious surfaces retrofitted by DDOT
Habitat Restoration		
Restore 800 ft of Nash Run and 1,800 ft of Springhouse Run for a total of 2,600 linear feet of stream restoration	8,976 linear ft in 2009-11	11,576 linear feet of stream restoration
Install 4 first order stream restoration projects	Not previously reported	Will result in additional linear feet of stream restoration
Daylight 1,600 ft of stream in Broad Branch	Not a previous milestone, first time project	1,600 linear feet of stream daylighted
Restore 2 acres of wetland in Springhouse Run	Not a previous milestone	2 additional acres of wetland restoration

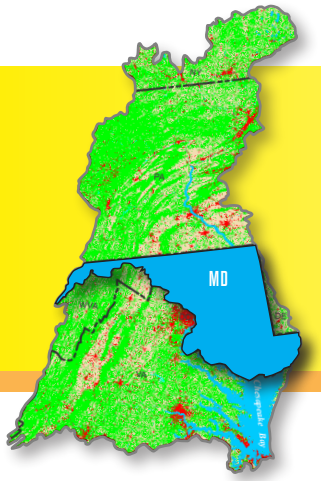
For the full details of District of Columbia's target implementation milestones, please see http://stat.chesapeakebay.net/milestones2013DC

2012 – 2013 Commitment Highlights

- Create citywide online stormwater tracking tool
- Inspect all Municipal Separate Storm Sewer System (MS4) outfalls once every five years
- Inspect all known automotive repair shops, dry cleaners, car washes, maintenance facilities, and local and federal facilities which generate large quantities of hazardous waste within the MS4 once every two years
- Perform follow-up inspections within the MS4 at all facility types for compliance with good housekeeping measures as outlined as areas for improvement in the facility's inspection report
- Distribute educational pollution prevention posters/flyers to automotive facilities and maintenance yards within the MS4 during inspections; and hold educational workshops.
- Respond and investigate all illicit discharge complaints and referrals within five days, and ensure compliance with all Water Pollution Control Act regulations
- Conduct 2 pollution prevention workshops for District municipal employees
- Implement a Stormwater Fee Discount program
- Strengthen pet waste program by installing 100 metal ('pick up') signs at parks and schools, and deliver 1,000 educational brochures to renters, homeowners, and school, community & outreach events

For the full details of District of Columbia's programmatic milestones, please see http://www.epa.gov/reg3wapd/pdf/pdf_chesbay/2yearmilestones/DC2012_13ProgrammaticMilestonesFinalMay2012.pdf

For more information, contact Diane Davis, 202.741.0847, diane.davis2@dc.gov



Maryland's

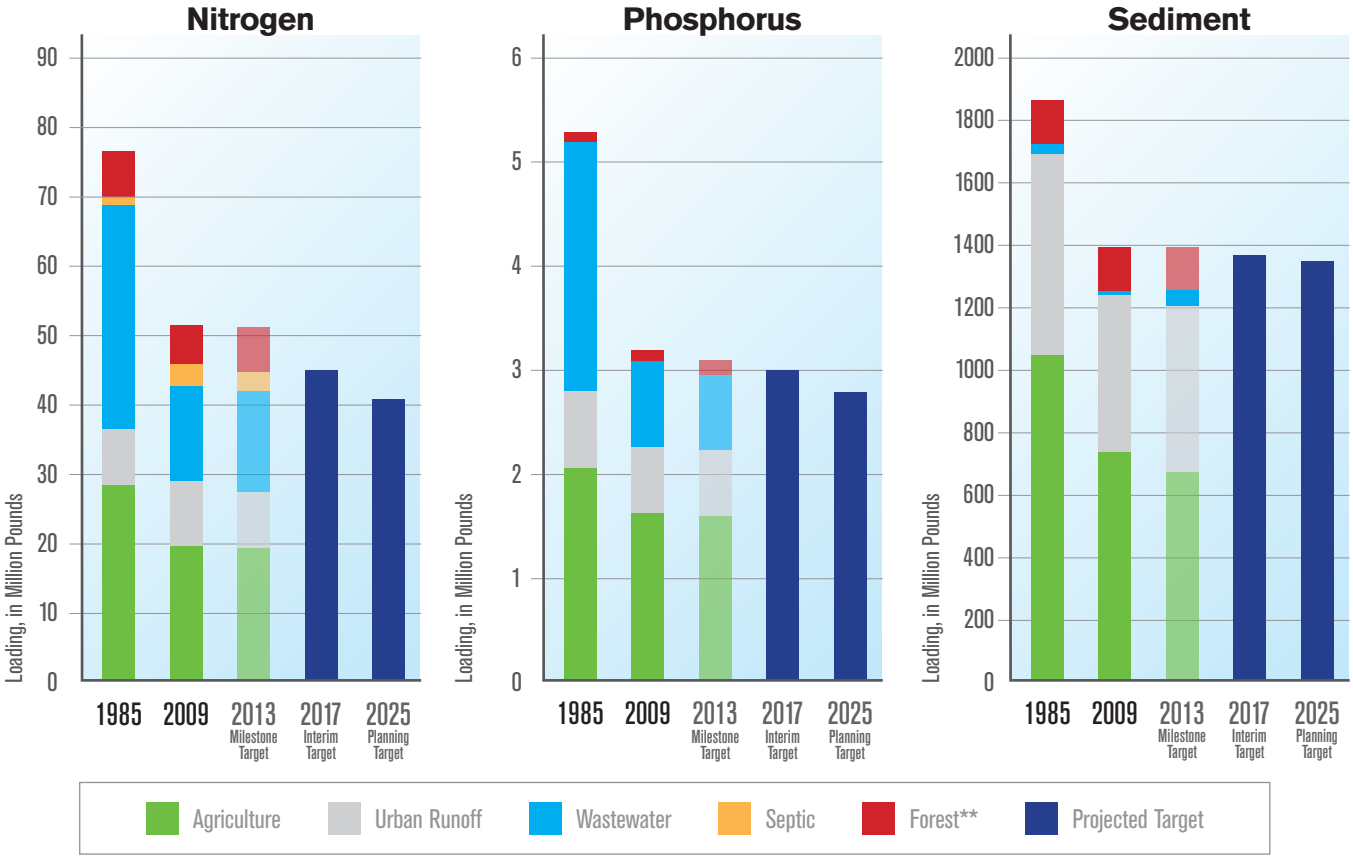
2012–2013 Milestone Commitments to Reduce Nitrogen, Phosphorus and Sediment

Chesapeake Bay Program
A Watershed Partnership

Overview

In 2008 the Chesapeake Executive Council charged the seven jurisdictions to develop a two-year milestone process for reducing their respective nitrogen, phosphorus and sediment contributions to the Chesapeake Bay and to track the pace of those reductions. Two-year milestones provide short-term objectives and have become part of the overall Total Maximum Daily Load (TMDL) accountability framework established in 2010 to assess progress on restoration goals. When fully implemented, the seven Watershed Implementation Plans (WIPs) will ensure that practices are in place by 2017 to reduce the load by 60 percent. By 2025, all practices necessary to meet the target loading levels will be in place. The two-year milestones allow jurisdictions the opportunity to adapt implementation strategies as outlined in their Watershed Implementation Plans as necessary to meet those goals and ultimately achieve applicable water quality standards and restore the Bay. **Maryland's 2012-2013 milestone nonpoint source best management practice commitments and wastewater strategy reduce nitrogen by 790,549 pounds and phosphorus by 161,611 pounds and decrease sediment by 904,079 pounds by the end of the milestone period, compared to the 2009 baseline.**

Maryland's Pollutant Reduction Progress and Future Targets by Source Sector



** Forest includes other sources

Note: As agreed to by the Chesapeake Bay Partnership the anticipated progress for each 2013 milestone target was calculated using a 2010 land use simulation. In 2013 actual implementation results will be reported to the Chesapeake Bay Program and the computer simulation pollutant reduction progress will be calculated using a projected land use for 2013 which could result in adjustments to projected pollution loads in the milestones.

For more information, contact Jim George, 410.537.3579, jgeorge@mde.state.md.us

Milestone Highlights:

Maryland is making significant progress in its restoration efforts and is on track to meet the 2012-2013 milestones and commitments. Through BayStat, we are tracking implementation and progress of our goals monthly. Visit http://www.baystat.maryland.gov/ to follow our progress.

Pollutant Reduction Controls, Practices and Actions in 2012-2013 Milestone Target Highlights

Pollutant Controls, Practices, and Actions	Progress through 2011	2013 Targets
Agriculture		
Cover Crops (All)	384,671 acres/yr	355,000 acres/yr
Nutrient Management	1,053,603 acres	1,219,566 acres
Stream Protection with Fencing	543 acres	713 acres
Forest Buffers (Private and Public Lands)	21,374 acres	21,595 acres
Grass Buffers (Private and Public Lands)	48,327 acres	48,865 acres
Soil Conservation & Water Quality Plans	791,859 acres	826,000 acres
Urban Runoff		
Stormwater Retrofits	64,603 acres	76,603 acres
Septic		
Septic System Denitrification (Retrofits)	3,779 systems	4,979 systems
Wastewater +Combined Sewer Overflow		
Complete Construction of Enhanced Nutrient Removal Upgrades	23 plants / 30%	38 plants / 50%
Air Pollution Reductions	305,882 pounds	25,214 pounds

For the full details of Maryland's target implementation milestones, please see http://stat.chesapeakebay.net/milestones2013MD

2012 – 2013 Commitment Highlights

Bay Restoration Fund Fee Increase: In 2012, double the Bay Restoration Fund Fee to generate the revenue needed to fully implement Maryland's wastewater treatment plant enhancement schedule by 2017 and upgrade more than 1,300 septic systems to best available technology annually.

Chesapeake and Atlantic Coastal Bays Trust Fund: In 2012, in response to the WIP and the increased burden on local governments to achieve nutrient reduction goals, increase funding in the Trust Fund. For Fiscal Year 2013, in addition to $25 million for the Trust Fund, Maryland will provide $38 million in general obligation bonds to local communities for implementation of stormwater capital improvements. These funds will not only kick start restoration at the local level, but also create and retain green jobs in Maryland's economy. Funding was also increased to support implementation of natural filters on public lands ($9 million), and funding for Soil Conservation Districts from 16 to 39 positions ($2.2 million). In addition, funding for the cover crop program will be $12 million – a record level.

Stormwater Management: The Watershed Protection and Restoration Program requires the Phase I MS4 permitted jurisdictions to develop and implement a stormwater utility fee by July 1, 2013.

Track voluntary actions on agricultural land: The Voluntary Agricultural Nutrient and Sediment Credit Certification Program authorizes the Department of Agriculture to establish requirements for the voluntary certification and registration of sediment credits on agricultural land.

Sustainable Growth and Agricultural Preservation Act of 2012: This act requires local governments to establish tiers for new development by December 31, 2012. The law restricts the use of septic systems in major subdivisions of more rural and sensitive areas. The law also allows for limited subdivision of agricultural properties and helps preserve farm and forestland. This legislation will help Maryland grow smarter and allow local jurisdictions to save money on additional roads and public services by requiring growth in existing areas.

PlanMaryland: Maryland's first sustainable growth plan, which will prevent the loss of more than 300,000 acres of forest and farmland over the next 25 years while accommodating a projected one million additional residents, 500,000 new households and 600,000 new jobs in the State, was established by Executive Order in 2012. PlanMaryland achieves this by improving coordination between state agencies and local governments on smart growth efforts; stimulating economic development and revitalization in towns, cities and other existing communities; and addressing the rapid pace of land consumption which, since 1970, has escalated at double the rate of housing growth and triple the rate of population increase.

Change the Agricultural Nutrient Management Regulations: In 2013, restrict fall fertilization of small grain crops on soil that tests above given nitrate level thresholds; require incorporation of organic nutrient sources (with some exceptions); limit fall applications of organic nutrient sources; and, require a cover crop following fall applications of organic nutrient sources.

Adopt a revised Phosphorus Site Index (PSI)**:** In 2013, incorporate the new PSI into nutrient management plans in preparation for the 2013 crop season (winter 2012-2013).

Urban Nutrient Management: In 2013, develop regulations to implement the Fertilizer Use Act. This will: limit nitrogen & phosphorus content in fertilizer content and use on non-agricultural land; require certification and training for non-agricultural applicators; require certain fertilizer product labeling; and require outreach and education programs for homeowner fertilizer use.

Maryland's Trading and Offset Program: In 2013, develop a fully implementable growth offset program, address all unresolved Maryland-specific Tier 1 recommendations, and address other unresolved recommendations common to all jurisdictions.

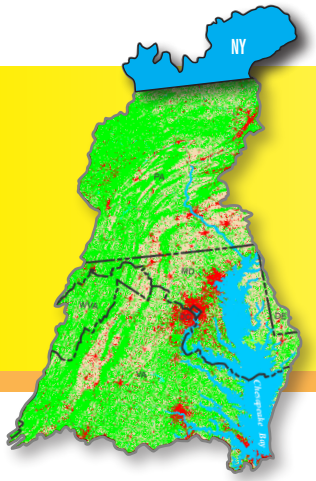
Finalize stormwater retrofit guidance: In 2013, finalize stormwater retrofitting guidance to be consistent with forthcoming Bay Program recommendations and address stream restoration projects and a statewide residential reforestation program.

Develop a Residential BMP Tracking and Crediting Tool: In 2013, build an on-line platform or a mobile app into which homeowners and watershed groups may upload their BMP implementation information, which local governments will access and ground-truth. Once verified by local jurisdiction staff, university agents or other state trained volunteers, the data will be available for use by local governments when reporting milestone implementation.

Federal funding: In 2013, ask Maryland's Congressional delegation to pursue authorization for federal funding for the Bay jurisdictions through pending or new legislation; and ask the U.S. Army Corps of Engineers to formally pursue prioritization of stormwater projects in Maryland within its capital improvement plan.

For the full details of Maryland's programmatic milestones, please see
http://www.mde.state.md.us/programs/Water/TMDL/ChesapeakeBayTMDL/Pages/programs/waterprograms/tmdl/cb_tmdl/index.aspx

For more information, contact Jim George, 410.537.3579, jgeorge@mde.state.md.us



New York's

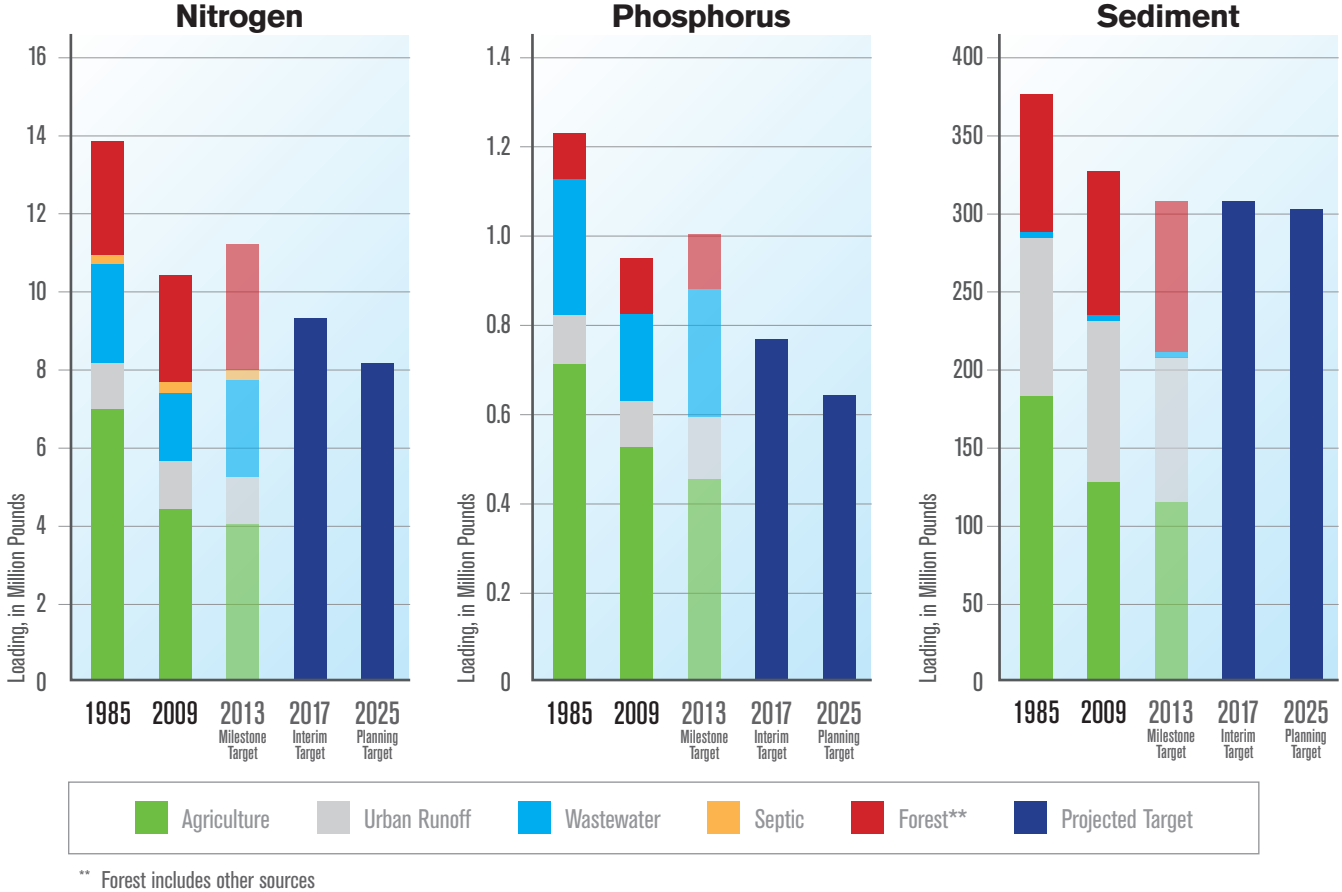
2012–2013 Milestone Commitments to Reduce Nitrogen, Phosphorus and Sediment

Chesapeake Bay Program
A Watershed Partnership

Overview

In 2008 the Chesapeake Executive Council charged the seven jurisdictions to develop a two-year milestone process for reducing their respective nitrogen, phosphorus and sediment contributions to the Chesapeake Bay and to track the pace of those reductions. Two-year milestones provide short-term objectives and have become part of the overall Total Maximum Daily Load (TMDL) accountability framework established in 2010 to assess progress on restoration goals. When fully implemented, the seven Watershed Implementation Plans (WIPs) will ensure that practices are in place by 2017 to reduce the load by 60 percent. By 2025, all practices necessary to meet the target loading levels will be in place. The two-year milestones allow jurisdictions the opportunity to adapt implementation strategies as outlined in their Watershed Implementation Plans as necessary to meet those goals and ultimately achieve applicable water quality standards and restore the Bay. **New York's 2012-2013 milestone commitments are adjusted to reflect the legally authorized discharge versus the actual discharge (actual discharges are invariably less than authorized discharges). The effect of this adjustment is that, when compared to the 2009 baseline, the nominal nitrogen commitment for 2013 increases by 433,730 pounds and the nominal phosphorus commitment increases by 51,988 pounds. The sediment commitment is for a reduction of 16, 397,577 pounds by the end of 2013, compared to the 2009 baseline.**

New York's Pollutant Reduction Progress and Future Targets by Source Sector



** Forest includes other sources

For more information, contact Jacqueline Lendrum, 518.402.8111, jmlendru@gw.dec.state.ny.us

Milestone Highlights:

Projected reductions for agriculture and stormwater will continue to occur annually whereas most reductions from wastewater will occur when permit modifications are complete. For the 2012-2013 milestone, it is New York's intention to include wastewater contributions at design flows although current loads are significantly less.

Pollutant Reduction Controls, Practices and Actions in 2012-2013 Milestone Target Highlights

Pollutant Controls, Practices, and Actions	Progress through 2011	2013 Targets
Agriculture		
Enhanced Nutrient Management	26,341 acres	176,356 acres
Conservation Tillage	10,265 acres/yr	13,313 acres/yr
Grass Buffers	6,707 acres	6,734 acres
Forest Buffers	4,042 acres	4,045 acres
Wetland Restoration	6,363 acres	6,363 acres
Urban Runoff		
Erosion and Sediment Control (acres/yr)	2,911	2,911
Wastewater + Combined Sewer Oveflow		
Wastewater Facilities Meeting Water Quality Standards in Chesapeake Bay[1] (Cumulative number and percentage of facilities)	0 / 0%	0 / 0%

For the full details of New York's target implementation milestones, please see http://stat.chesapeakebay.net/milestones2013NY

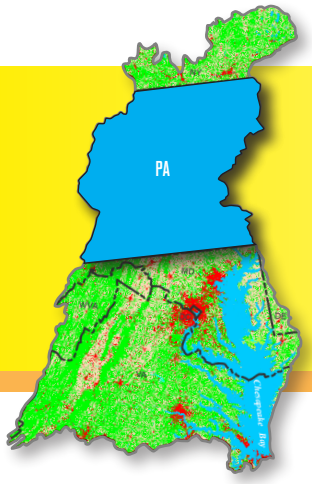
2012 – 2013 Commitment Highlights

- Implement a basin-wide "Trees for Tributaries" program to include stream corridor restoration
- Develop and implement tracking, reporting and verification mechanism for construction stormwater conservation practices installed through an improved Construction Stormwater Notice of Intent form
- Develop and implement tracking, reporting and verification mechanisms for voluntary conservation practices installed on agricultural lands
- Implement two rounds of the NYS Agricultural Non-Point Source Abatement and Control Program for practice implementation, as well as two years of the AEM Base Program, supporting technical assistance by Soil & Water Conservation Districts
- Compare end of season nitrate capture and N release in spring and summer as impacted by cover crop species, biomass, timing and method of cover termination, and test various tools for N management in cover-crop based corn systems
- Continue the USC Stream Initiative to use emergency intervention procedures to minimize problems after major flooding events and establish triage methods to best use limited funding
- Initiate floodplain reconnection program through streambank berm removal
- Continue wetland restoration efforts on public and private lands

For the full details of New York's programmatic milestones, please see http://www.epa.gov/reg3wapd/pdf/pdf_chesbay/2yearmilestones/NYTwoyearmilestonesprogrammatic1_10_12.pdf

[1] based on permits with effluent limits in effect that meet DO and SAV/clarity standards

For more information, contact Jacqueline Lendrum, 518.402.8111, jmlendru@gw.dec.state.ny.us



Pennsylvania's

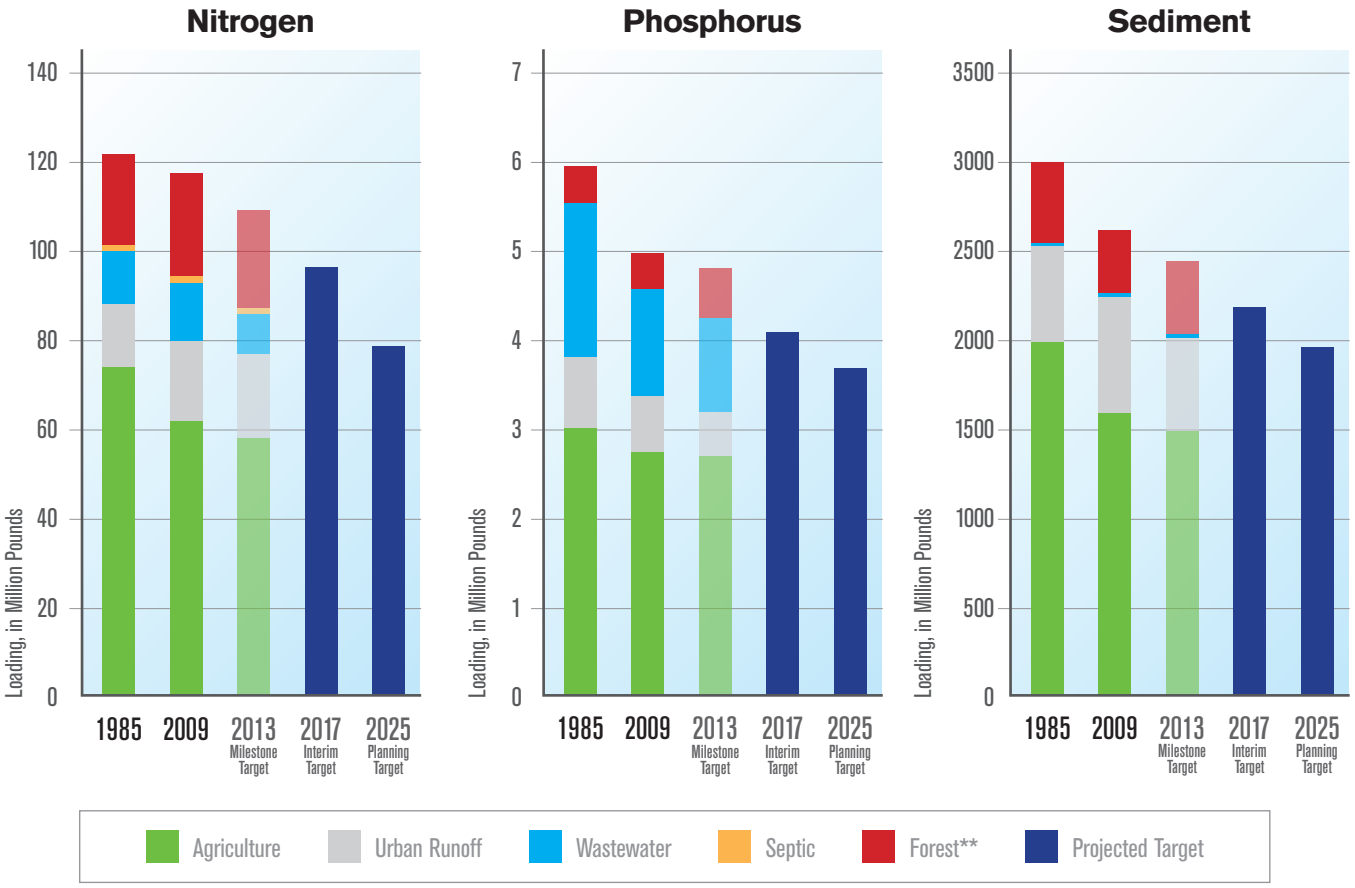
2012–2013 Milestone Commitments to Reduce Nitrogen, Phosphorus and Sediment

Chesapeake Bay Program
A Watershed Partnership

Overview

In 2008 the Chesapeake Executive Council charged the seven jurisdictions to develop a two-year milestone process for reducing their respective nitrogen, phosphorus and sediment contributions to the Chesapeake Bay and to track the pace of those reductions. Two-year milestones provide short-term objectives and have become part of the overall Total Maximum Daily Load (TMDL) accountability framework established in 2010 to assess progress on restoration goals. When fully implemented, the seven Watershed Implementation Plans (WIPs) will ensure that practices are in place by 2017 to reduce the load by 60 percent. By 2025, all practices necessary to meet the target loading levels will be in place. The two-year milestones allow jurisdictions the opportunity to adapt implementation strategies as outlined in their Watershed Implementation Plans as necessary to meet those goals and ultimately achieve applicable water quality standards and restore the Bay. **Pennsylvania's 2012-2013 milestone commitments reduce nitrogen by 6,328,907 pounds, phosphorus by 254,377 pounds, and sediment by 204,112,700 pounds by the end of 2013, compared to the 2009 baseline.**

Pennsylvania's Pollutant Reduction Progress and Future Targets by Source Sector



** Forest includes other sources

For more information, contact Ted Tesler, 717.772.4785, thtesler@pa.gov

Milestone Highlights:

The foundation of Pennsylvania's Chesapeake Watershed Implementation Plan (WIP) includes milestone implementation and tracking, new technology and nutrient trading, and enhanced compliance. Due to the under-reporting of Best Management Practice (BMP) implementation, there is the appearance that the Pennsylvania 2013 milestones may not be on track to meeting the targets for 2017. Pennsylvania anticipates that implementation of its WIP will improve future reporting of progress.

Pollutant Reduction Controls, Practices and Actions in 2012-2013 Milestone Target Highlights

Pollutant Controls, Practices, and Actions	Progress through 2011	2013 Targets
Agriculture		
Animal Waste Management Systems	644,922 animal units	660,309 animal units
Barnyard Runoff Controls	408 acres	664 acres
Conservation Planning	1,562,980 acres	1,306,621 acres
Conservation Tillage, All Types	633,610 acres/yr	694,546 acres/yr
Forest Buffers	69,180 acres	74,683 acres
Grass Buffers	6,177 acres	7,050 acres
Nutrient Management, All Types	1,388,146 acres	1,450,720 acres
Pasture Grazing Best Management Practices, All Types	94,300 acres	89,390 acres
Stream Restoration	471,670 feet	570,004 feet
Wetland Restoration	4,709 acres	5,720 acres
Wastewater + Combined Sewer Overflow		
Wastewater Facilities Meeting Water Quality Standards in Chesapeake Bay[1] (Cumulative number and percentage of facilities)	47 permits / 22%	135 permits / 63%
Urban Runoff		
Abandoned Mine Reclamation	12,926 acres	13,374 acres
Dirt and Gravel Road Erosion & Sediment Control	3,577,938 feet	3,925,107 feet
Erosion & Sediment Control	0 acres/yr	18,625 acres/yr
Storm Water Management, All Types, Urban/Suburban	698,051 acres	703,610 acres
Urban Tree Planting	0 acres	100 acres

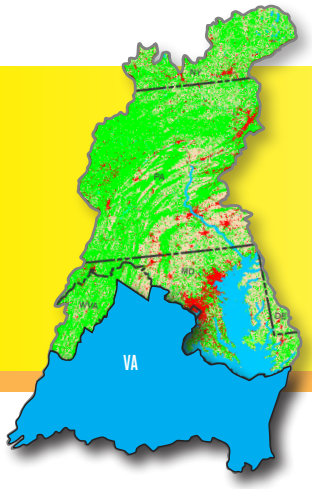
For the full details of Pennsylvania's target implementation milestones, please see http://stat.chesapeakebay.net/milestones2013PA

2012 – 2013 Commitment Highlights

- Develop a Model Ag Compliance Policy for use by Conservation Districts: September 2012
- DEP CBRAP Compliance staff increase agriculture compliance inspections and actions: December 2013
- Update the MS4 Compliance Monitoring Strategy: September 2012
- Develop a tracking system for stormwater BMPs: December 2013
- 135 Significant Sewage facilities are anticipated to comply with cap loads: June 2013
- Development of a Stormwater Management Off-setting Program: December 2013

For the full details of Pennsylvania's programmatic milestones, please see http://www.portal.state.pa.us/portal/server.pt/community/chesapeake_bay_program/10513

[1] based on permits with effluent limits in effect that meet DO and SAV/clarity standards



Virginia's

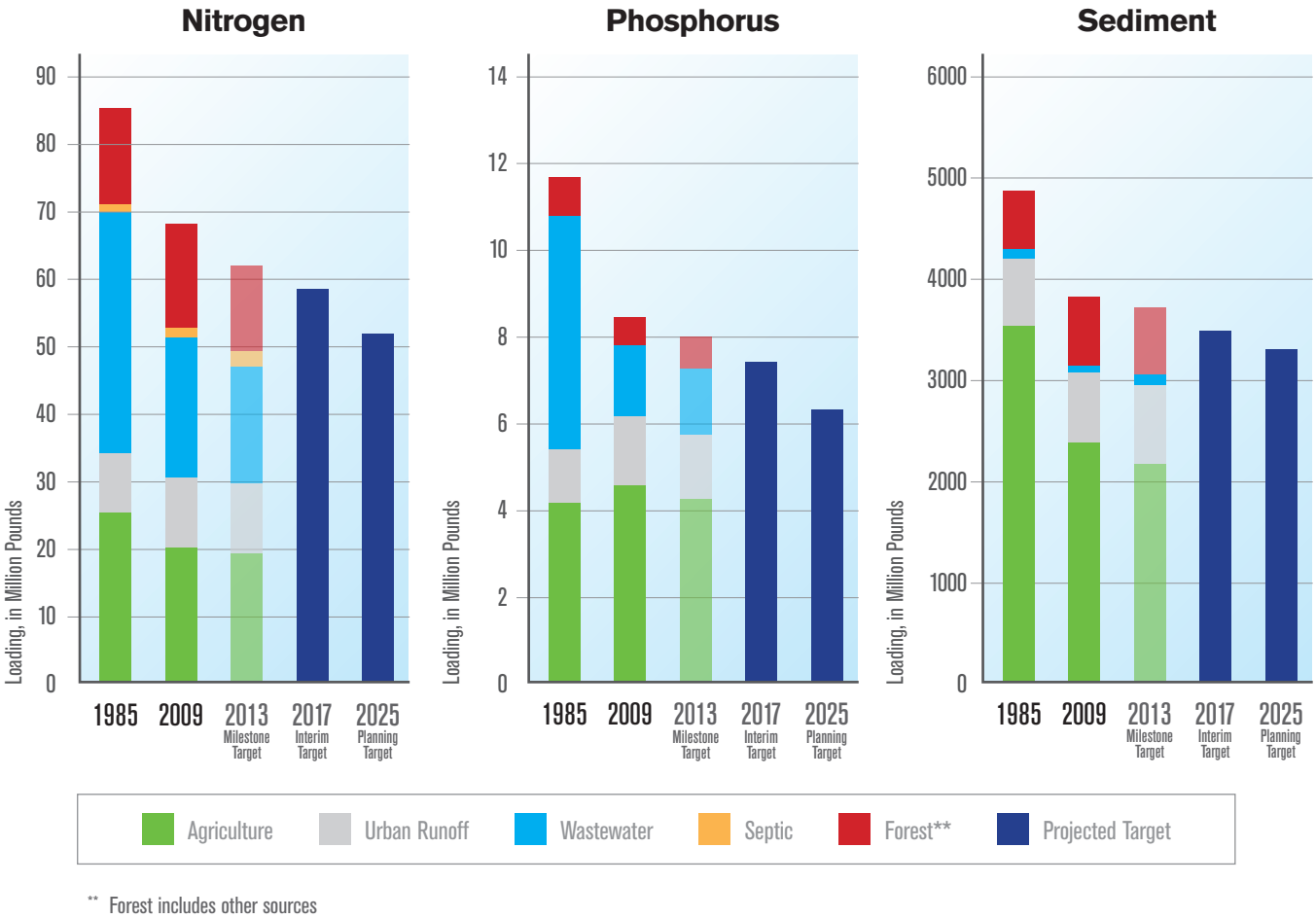
2012–2013 Milestone Commitments to Reduce Nitrogen, Phosphorus and Sediment

Chesapeake Bay Program
A Watershed Partnership

Overview

In 2008 the Chesapeake Executive Council charged the seven jurisdictions to develop a two-year milestone process for reducing their respective nitrogen, phosphorus and sediment contributions to the Chesapeake Bay and to track the pace of those reductions. Two-year milestones provide short-term objectives and have become part of the overall Total Maximum Daily Load (TMDL) accountability framework established in 2010 to assess progress on restoration goals. When fully implemented, the seven Watershed Implementation Plans (WIPs) will ensure that practices are in place by 2017 to reduce the load by 60 percent. By 2025, all practices necessary to meet the target loading levels will be in place. The two-year milestones allow jurisdictions the opportunity to adapt implementation strategies as outlined in their Watershed Implementation Plans as necessary to meet those goals and ultimately achieve applicable water quality standards and restore the Bay. **Virginia's 2012-2013 milestone commitments reduce nitrogen by 5,714,226 pounds, phosphorus by 623,424 pounds, and sediment by 117,460,819 pounds by the end of 2013, compared to the 2009 baseline.**

Virginia's Pollutant Reduction Progress and Future Targets by Source Sector



** Forest includes other sources

For more information, contact Russ Baxter 804.698.4382, russ.baxter@deq.virginia.gov

Milestone Highlights:

While the milestones are predictors of future actions, our key measure will continue to be the delivered loads reported annually by the Chesapeake Bay Partnership Watershed Model "progress" runs that track actual implementation each year (measured point source discharges and nonpoint source Best Management Practices installed). The significant reductions achieved in the wastewater sector to date and the acceleration of nonpoint source controls in the coming years will allow Virginia to remain on track to achieve the 2017 loading goals. The programmatic milestones established for the milestone period will further implement Virginia's WIP. They include the development of a program for the expanded use of nutrient credits, implementing actions to reduce the impacts of homeowner fertilizer use, improved management of animal agriculture operations and strengthened stormwater management in urban areas.

Pollutant Reduction Controls, Practices and Actions in 2012-2013 Milestone Target Highlights

Pollutant Controls, Practices, and Actions	Progress through 2011	2013 Targets
Agriculture		
Nutrient Management (including precision agriculture)	587,402 acres	632,150 acres
Urban Runoff		
Erosion and Sediment Control	23,075 acres/yr	19,966 acres/yr
Urban Nutrient Management	37,997 acres	60,149 acres
Septic		
Pump-outs	28,368 systems/yr	36,606 systems/yr
Connection to Sewer	4 systems	600 systems
Nitrogen Reducing Systems	186 systems	154 systems
Wastewater +Combined Sewer Overflow		
Wastewater Facilities Meeting Water Quality Standards in Chesapeake Bay[1] (Cumulative number and percentage of facilities)	71/ 60%	71 / 60%

For the full details of Virginia's target implementation milestones, please contact vabaytmdl@dcr.virginia.gov or see http://stat.chesapeakebay.net/milestones2013VA

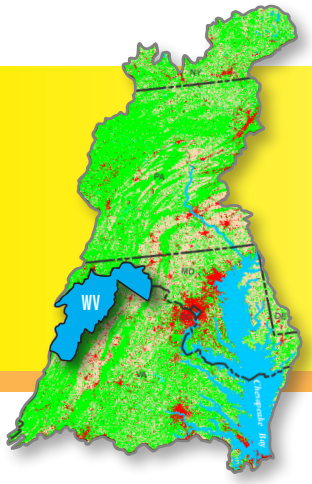
2012 – 2013 Commitment Highlights

- Finalize regulatory actions to initiate the Resource Management Plan framework
- Implement amendments to the Virginia Fertilizer Law to protect water quality
- Begin implementation of newly established Nutrient Trading Act
- Improve compliance with erosion and sediment control and stormwater management requirements
- Continue implementation of Watershed General Permit requirements that contain TMDL allocations for wastewater discharges
- Begin the phased pollutant reductions in permits for Municipal Separate Storm Sewer Systems
- Finalize and begin implementation of strategy to improve management of small animal feeding operations

For the full details of Virginia's programmatic milestones, please see http://www.dcr.virginia.gov/vabaytmdl/index.shtml

Note: The amount of pollutant load represented in Virginia's "Pollutant Reduction Progress and Future Targets by Source Sector" graphs is subject to further review and possible modification. The partnership will continue to review the impact of controls and practices, including nutrient management plans for agricultural acres, on reducing pollutant loads.

[1] based on permits with effluent limits in effect that meet DO and SAV/clarity standards



West Virginia's

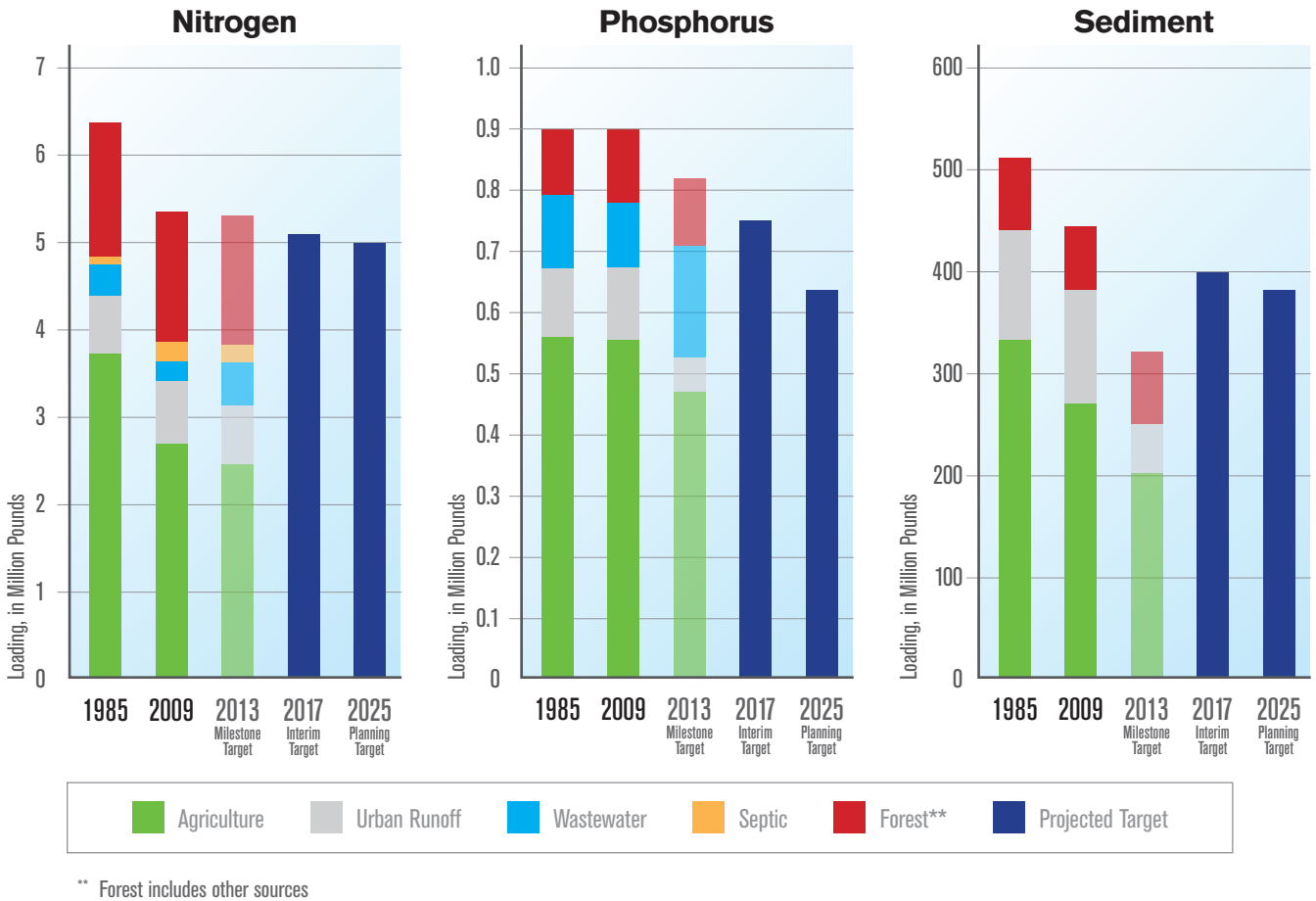
2012–2013 Milestone Commitments to Reduce Nitrogen, Phosphorus and Sediment

Chesapeake Bay Program
A Watershed Partnership

Overview

In 2008 the Chesapeake Executive Council charged the seven jurisdictions to develop a two-year milestone process for reducing their respective nitrogen, phosphorus and sediment contributions to the Chesapeake Bay and to track the pace of those reductions. Two-year milestones provide short-term objectives and have become part of the overall Total Maximum Daily Load (TMDL) accountability framework established in 2010 to assess progress on restoration goals. When fully implemented, the seven Watershed Implementation Plans (WIPs) will ensure that practices are in place by 2017 to reduce the load by 60 percent. By 2025, all practices necessary to meet the target loading levels will be in place. The two-year milestones allow jurisdictions the opportunity to adapt implementation strategies as outlined in their Watershed Implementation Plans as necessary to meet those goals and ultimately achieve applicable water quality standards and restore the Bay. **West Virginia's 2012-2013 milestone commitments reduce nitrogen by 58,613 pounds, phosphorus by 69,782 pounds, and sediment by 125,733,105 pounds by the end of 2013, compared to the 2009 baseline.**

West Virginia's Pollutant Reduction Progress and Future Targets by Source Sector



** Forest includes other sources

For more information, contact Teresa Koon, 304.926.0495, teresa.m.koon@wv.gov

Milestone Highlights:

West Virginia's 2013 milestones for nitrogen and phosphorus are on track to meet the targets for 2017. While it appears that nitrogen and phosphorus loads contributed by the wastewater category are increasing between 2009 and 2013 this is the result of data reporting difficulties. West Virginia is confident that the cumulative loadings from the wastewater category will be less than portrayed in the 2013 milestone model scenario, and are likely to be less than those reported in the 2011 reporting period. Six significant wastewater facilities are expected to be meeting TMDL wasteload allocations by the end of the 2013 reporting period and all significant wastewater treatment plants in West Virginia are scheduled to be in compliance with TMDL wasteload allocations by 2017.

Pollutant Reduction Controls, Practices and Actions in 2012-2013 Milestone Target Highlights

Pollutant Controls, Practices, and Actions	Progress through 2011	2013 Targets
Agriculture		
Animal Waste Management Systems – livestock	10,165 animal units	11,933 animal units
Conservation Tillage	24,748 acres/yr	26,865 acres/yr
Grass Buffers	3,056 acres	3,085 acres
Forested Buffers (including forest buffers on fenced pasture corridor)	3,676 acres	4,011 acres
Manure Transport (Poultry Litter)	1,560 tons	5,000 tons
Stream Access Control with Fencing	39 percent	45 percent
Non-urban Stream Restoration	10,118 feet	14,618 feet
Wastewater + Combined Sewer Oveflow		
Wastewater Facilities Meeting Water Quality Standards in Chesapeake Bay[1] (Cumulative number and percentage of facilities)	0 / 0%	6 / 32%

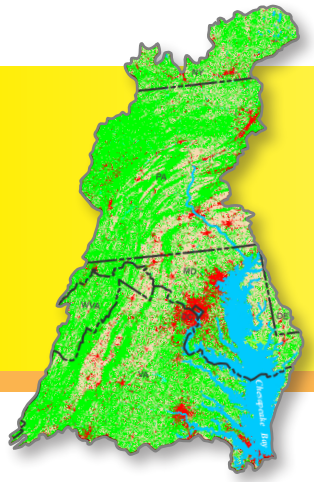
For the full details of West Virginia's target implementation milestones, please see http://stat.chesapeakebay.net/milestones2013WV

2012 – 2013 Commitment Highlights

- By July 2012, revise state code to incorporate WV Nutrient Management rule
- By December 2013, develop nutrient management plans for Concentrated Animal Feeding Operations (CAFOs)
- By December 2013, conduct targeted outreach and education to encourage farmers to install and maintain BMPs
- By December 2012, complete a statewide stormwater management guidance manual
- By June 2013, complete upgrades of wastewater treatment plants for Frankfort, Shepherdstown and the Reeds Creek Fish Hatchery to meet TN and TP limits

For the full details of West Virginia's programmatic milestones, please see http://www.wvca.us/bay/files/bay_documents/255_WV 2012_2013 Milestone.pdf

[1] based on permits with effluent limits in effect that meet DO and SAV/clarity standards



Environmental Protection Agency

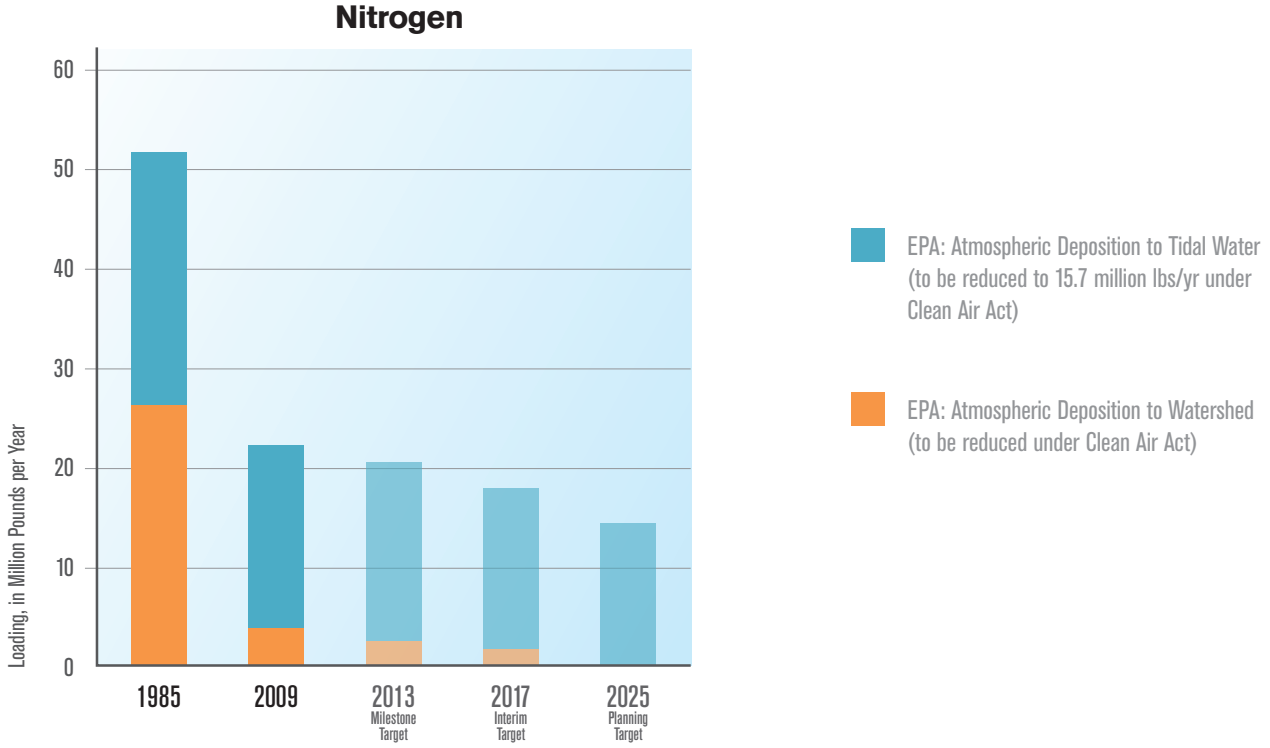
2012 -2013 Milestone Commitments to Reduce Atmospheric Deposition of Nitrogen

Chesapeake Bay Program
A Watershed Partnership

Overview

Atmospheric deposition of nitrogen is a major source of nitrogen to the Chesapeake Bay watershed and the tidal Bay. About half of the nitrogen air deposition loads to the Chesapeake watershed originate from sources within the Bay watershed jurisdictions, with the remaining originating from sources beyond the watershed. EPA will significantly reduce nitrogen deposition to the Bay and watershed by 2020 by working with the states to implement national programs to remedy air pollution under the Clean Air Act that will reduce nitrogen emissions from electric utilities, other industrial point sources, and on- and off-road vehicles, including ships and other sources. EPA will be accountable for reductions of atmospheric deposition of nitrogen to tidal waters of the Chesapeake Bay in the Chesapeake Bay Total Maximum Daily Load (TMDL) allocation. By including air deposition in the Bay TMDL load allocations, jurisdictions will benefit from federally mandated emission reductions achieved by Bay jurisdictions as well as those achieved by other jurisdictions within and beyond the Chesapeake Bay airshed. Furthermore, jurisdictions may adopt their own regulations to reduce nitrogen emissions to go beyond national ambient air quality standards and take credit for nitrogen emission reductions that go beyond federal emission control measures. In addition to these regulatory efforts, EPA will continue to pursue enforcement actions, where appropriate, to reduce nitrogen loading to the Bay. **EPA's 2012-2013 milestone commitments reduce nitrogen deposition to the tidal Bay waters by approximately 2.5 million pounds and nitrogen deposition to the watershed by an estimated 0.9 million pounds by the end of 2013 compared to the 2009 baseline.**

EPA's Pollutant Reduction Progress and Future Targets for Atmospheric Deposition



For more information, contact Lewis Linker, 410.267.5741, LLinker@chesapeakebay.net

Milestone Highlights:

When factoring air deposition into the Bay TMDL, EPA separated the nitrogen atmospheric deposition into two discreet parcels: (1) atmospheric deposition occurring on the land in the Bay watershed and subsequently transported to the Bay; and (2) atmospheric deposition occurring directly onto the Bay tidal surface waters. The deposition on the land becomes part of the allocated load to the jurisdictions because the atmospheric nitrogen deposited on the land becomes indistinguishable from the land-based sources of nitrogen and can be controlled through land-based best management practices. In contrast, the atmospheric nitrogen deposited directly to tidal surface waters is a direct loading affected by air emission controls. Nitrogen deposition to tidal Bay waters is a separate load allocation in the Bay TMDL.

The above chart reflects a revised commitment of an estimated 350,000 pound reduction of air deposition to tidal waters of the Bay during the 2012-2013 milestone period for a total of approximately 2.5 million pounds of nitrogen reductions between 2009 and 2013. EPA originally committed to a 316,000 pound reduction in air deposition of nitrogen to tidal waters of the Bay in the federal 2012-2013 two-year milestones for water quality issued January 6, 2012. More recent and comprehensive accounting of the anticipated load reductions through national nitrogen emission controls have provided better estimates for the Chesapeake Bay region.

The reduction of 0.9 million pounds of air deposition load to the Bay from the watershed is anticipated based on expected air emission controls under the Clean Air Act. The seven jurisdictions' Watershed Implementation Plans assume this level of reduction when committing to land-based controls to meet pollutant reduction planning targets. Atmospheric deposition loads delivered to the Bay from the watershed are reduced to zero by 2025 in the above chart (orange bars) because the anticipated benefits from air emission controls are fully realized by 2025. A 2025 load of nitrogen deposition to the tidal Bay remains (blue bar) because of residual atmospheric deposition loads of nitrogen uncontrolled by national programs under the Clean Air Act.

2012 – 2013 Commitments

- 2012: Nitrogen Oxides (NOx) and Sulfur Oxides (SOx) Secondary National Ambient Air Quality Standards finalized.
- 2012: New air deposition modeling for the Chesapeake Bay watershed incorporating the most recent finalized rules with significant nitrogen oxides reductions.
- 2012: Environmental Protection Agency/Department of Transportation 2017-2025 Model Year Light-Duty Vehicle Green House Gas (GHG) Emissions and Corporate Average Fuel Economy (CAFE) Standards final rule.
- 2012/2013: Tier 3 Light-Duty Vehicle Emission and Fuel Standards final rule (criteria and toxic pollutants).

For the full details of EPA's programmatic milestones, please see
http://executiveorder.chesapeakebay.net/EO_13508_Water_Quality_Milestones-2012-01-06.pdf