



# Pennsylvania

## 2011 Milestones to Reduce Nitrogen & Phosphorus - Assessment June 2012

### FINAL PROGRESS



### Introduction

During the 2009 Chesapeake Executive Council meeting, the governor of Pennsylvania set short-term goals to reduce pollution to the Bay and dramatically accelerate the pace of restoration. A final assessment of progress follows.

### Final Progress

	2009-2011 Commitment	Achievement (7/1/08-6/30/11)	% Achieved (7/1/08- 6/30/11)
<b>Agriculture</b>			
Animal Waste Management Systems (systems)	275	361	131%
Carbon Sequestration/Alternative Crops (acres)	25,740	1,918	7%
Conservation Plans/SCWQP (acres)	327,599	149,932	46%
*Conservation Tillage: continuous no-till and other conservation tillage (acres)	175,491	-96,252	-55%
Cover Crops: late planting (acres)	174,818	65,535	37%
Forest Buffers (acres)	19,059	39,508	207%
Forest Harvesting Practices (acres)	125	9,948	7,959%
Grass Buffers (acres)	1,161	3,389	292%
Land Retirement/Environmental Planting (acres)	58,876	153,141	260%
Manure Transport: poultry litter (tons)	58,915	227,671	386%
Mortality Composters (units)	22	21	95%
*Nutrient Management, including enhanced nutrient management (acres)	129,250	76,600	59%
Pasture Grazing BMPs: off-stream watering w/ and w/out fencing and rotational grazing (acres)	34,727	126,840	365%
*Poultry Phytase (pounds P)	19,626	0	0%
Stream Restoration (feet)	215,088	395,347	184%
Tree Planting (acres)	15,065	39,945	265%
Wetland Restoration (acres)	1548	1,872	121%
<b>Urban/Suburban</b>			
Abandoned Mine Reclamation (acres)	2,219	2,157	97%
Dirt & Gravel Road Erosion & Sediment Control (feet)	124,913	583,574	467%
*Erosion & Sediment Control (acres)	7,000	0	0%
Septic Connections (connections)	7,353	7,751	105%
*Stormwater Management (acres)	8,690	-6,440	-74%
Stream Restoration (feet)	4,400	3,765	86%
<b>Wastewater</b>			
Wastewater Nitrogen (pounds reduced)	1,679,000	1,259,348	75%
Wastewater Phosphorus (pounds reduced)	49,500	126,099	255%
<b>Air</b>			
Heavy Truck Anti-Idling Rule	9,780,000	9,780,000	100%

\*See background information on reverse.

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## Programmatic Accomplishments, 2009-11

	Status
<b>Manure Management Manual</b>	Published 10/29/2011
<b>Agriculture Compliance</b>	Completed
<ul style="list-style-type: none"> <li>• 1,100 County conservation district staff site visits</li> <li>• 38 County conservation district Outreach Plans</li> <li>• "Am I in Compliance" brochure and barn sheet</li> <li>• "Basics of Agricultural Erosion and Sedimentation Control Requirements" barn sheet</li> <li>• "Basics of Manure Management Requirements" barn sheet</li> <li>• Draft Model Agriculture Compliance Policy</li> <li>• 4 CBRAP regional compliance and inspection staff hired</li> </ul>	12/31/2010 11/31/2011 1/2011 7/2011 12/2011 7/2011 7-12/2011
<b>Erosion and Sediment Control Regulations</b>	Published 11/19/2010
<ul style="list-style-type: none"> <li>• Codification of post-construction stormwater requirements</li> <li>• Mandatory riparian forest buffers for exceptional value waters</li> <li>• Conservation Plan revision to include animal heavy use areas</li> </ul>	
<b>Stormwater MS4</b>	Published 09/17/2011
<ul style="list-style-type: none"> <li>• Approved PAG-13—includes Chesapeake Bay Pollutant Reduction Plan</li> </ul>	
<b>Legacy Sediment BMP Development and Implementation</b>	11/02/2011-ongoing
<ul style="list-style-type: none"> <li>• Targeted Demonstration Site: Big Spring Run Basin of Mill Creek Watershed, Lancaster County. Approx. 5 acres of natural floodplain and riparian wetland restoration and 3,200 linear feet of natural stream restoration</li> </ul>	
<b>Phosphate Dishwater Detergent Ban</b>	Effective 7/1/2010
<b>Wastewater Treatment Plant Permits</b>	Status as of 7/2011
<ul style="list-style-type: none"> <li>• 47 of the 190 significant sewage facilities had cap loads that were effective on or before July 2011. (NOTE: 2009 – 2011 commitment was 40 plants.)</li> </ul>	
<b>Nutrient Trading</b>	2010 -2011
<ul style="list-style-type: none"> <li>• 3 PennVEST Nutrient Trading Auctions</li> <li>• 16 WWTP facilities purchased credits to obtain compliance</li> </ul>	12/2011

### Progress Highlights

- **Dirt & Gravel Road Erosion & Sediment Control: 467%.** PA's milestone was based on early program BMP implementation rates that have shown large increases over the last four years based on steady funding of this program.
- **Forest Harvesting Practices: 7,959%.** PA's milestone was based on historical BMP reporting levels. The PA Department of Conservation and Natural Resources has significantly increased its reporting.
- **Manure Transport: 386%.** A survey of Manure Brokers was completed that more accurately represents manure transport within and out of the Bay watershed.
- **Septic Connections: 105%.** The increase resulted from the first time reporting of septic system hook-ups by Penn-Vest and an increase in hook-ups reported by USDA's Rural Development Program.
- **Wastewater:** PA committed to having 40 Wastewater Treatment Plants (WWTPs) operating under reduced nutrient limit permits by June 2011. 47 of the 190 significant sewage facilities had cap loads that were effective by June 2011.
- **Pasture Grazing BMPs: 365 %.** Increased reporting of pasture grazing BMPs is attributed to the South Central Project Grass administered by the Capital RC&D Area Council. National Fish and Wildlife Funds supplemented existing cost-share programs including EQIP, CREP and DEP CBIG.

### Shortfalls

- **Conservation Tillage: -55%.** USDA/NASS reported that 78% of the tilled land in PA during 2009 used either "No-Till" or other conservation tillage. Efforts are underway to better track voluntary conservation tillage activities including a planned 2012 tillage transect study to better characterize this practice.
- **Erosion & Sediment Control: 0%.** Efforts are underway to better track the implementation of this practice through reporting of data collected from existing state permits.
- **Nutrient Management: 59%.** Evidence in south-central Pennsylvania counties and a recent USDA/CEAP study suggests that implementation levels may range from 50-70%. Efforts are underway to better track voluntary implementation activities.
- **Poultry Phytase: 0%.** No increase in implementation of this practice has been gauged during this milestone period. DEP plans to work with industry groups and stakeholders to characterize the current implementation of phytase feed additive use during the next milestone period.
- **Stormwater Management: -74%.** Ongoing efforts to better track urban BMPs through existing storm water management permits will result in a higher level of implementation than is currently reported.