

Chesapeake Bay Clean-Up: What does the future look like?

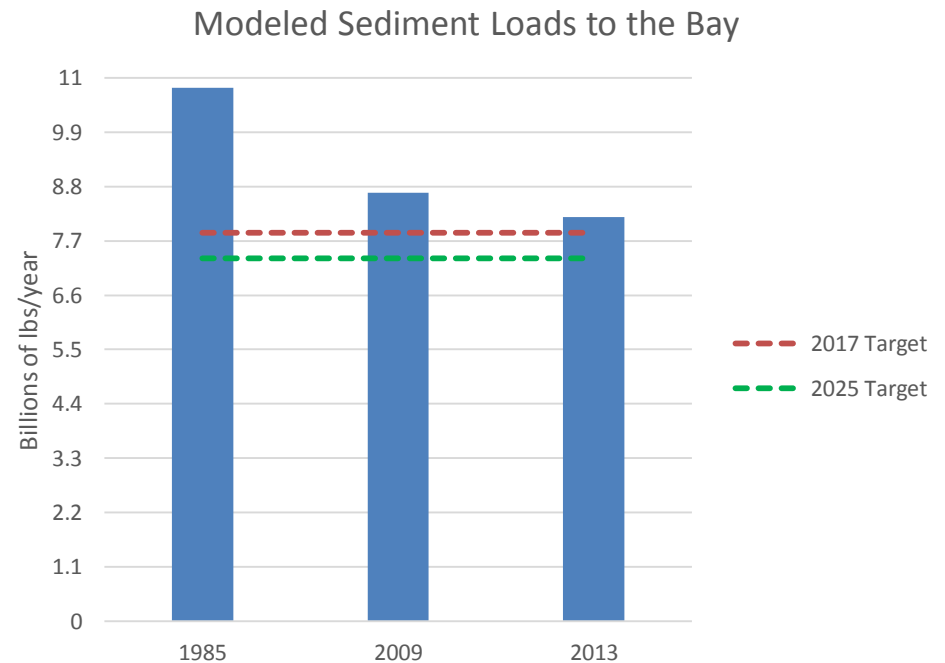
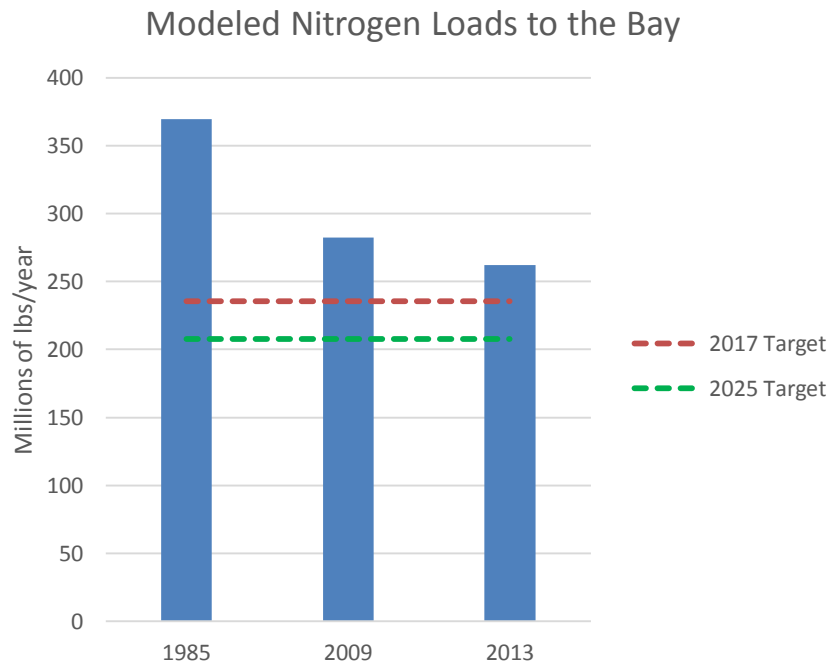
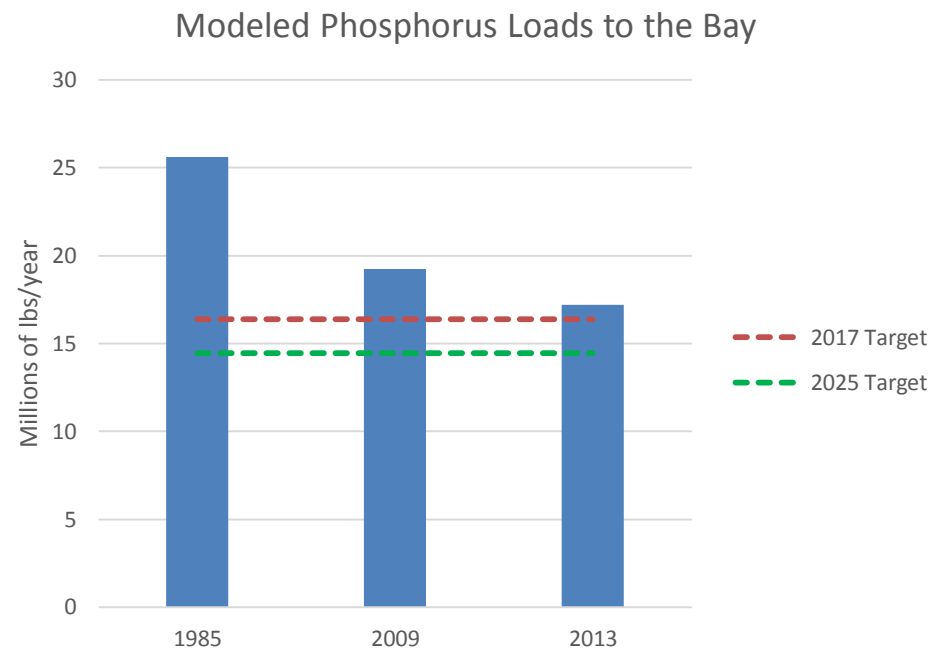
Kim Coble
Vice President
Chesapeake Bay Foundation



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Chesapeake Bay Commission
November 7, 2014

Chesapeake Bay Load Reductions 1985, 2009 & 2013 and 2017 & 2025 Targets



EPA Assessment 2012-2013 of Milestone Progress and 2014-2015 Milestone Commitments

Federal Agencies Water Quality Progress and WIP Support

EPA will continue to assess options for developing methods to track progress in reducing the release of nitrogen, phosphorus and sediment pollutants from federal lands and facilities. Progress assessment will continue to provide accountability and inform future federal activities that are intended to support the Bay jurisdictions' WIPs and the Bay TMDL.

2014 Oversight Status

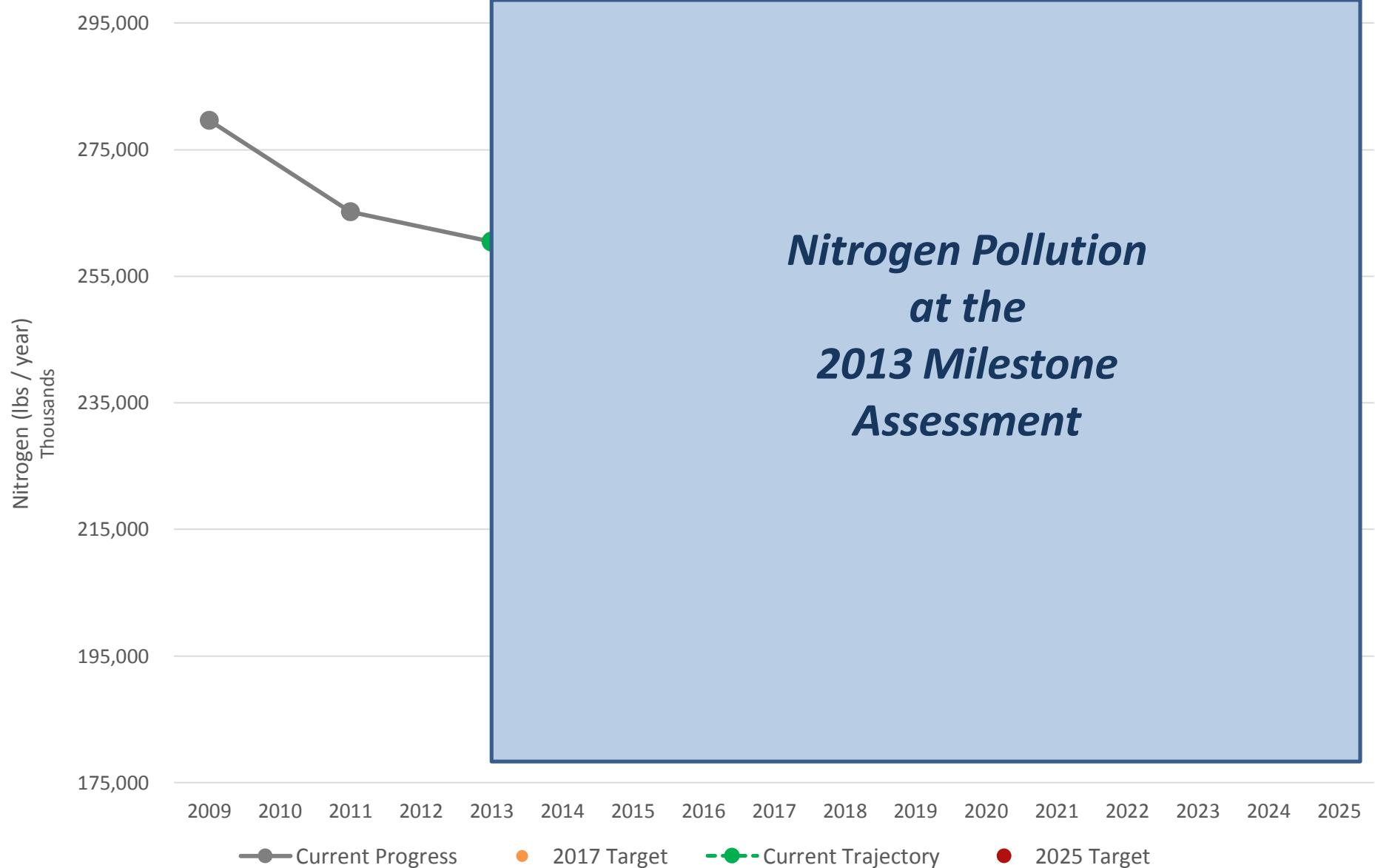
	Ongoing Enhanced Backstop			
	Agriculture:	Urban/Suburban:	Wastewater:	Trading/Offsets:
DE	Ongoing Oversight	Ongoing Oversight	Ongoing Oversight	Ongoing Oversight
DC	Not Applicable	Ongoing Oversight	Ongoing Oversight	Ongoing Oversight
MD	Ongoing Oversight	Ongoing Oversight	Ongoing Oversight	Ongoing Oversight
NY	Ongoing Oversight	Ongoing Oversight	Enhanced Oversight	Ongoing Oversight
PA	Backstop Actions Level	Backstop Actions Level	Ongoing Oversight	Enhanced Oversight
VA	Ongoing Oversight	Enhanced Oversight	Ongoing Oversight	Ongoing Oversight
WV	Enhanced Oversight	Ongoing Oversight	Ongoing Oversight	Ongoing Oversight

How are things watershed wide?



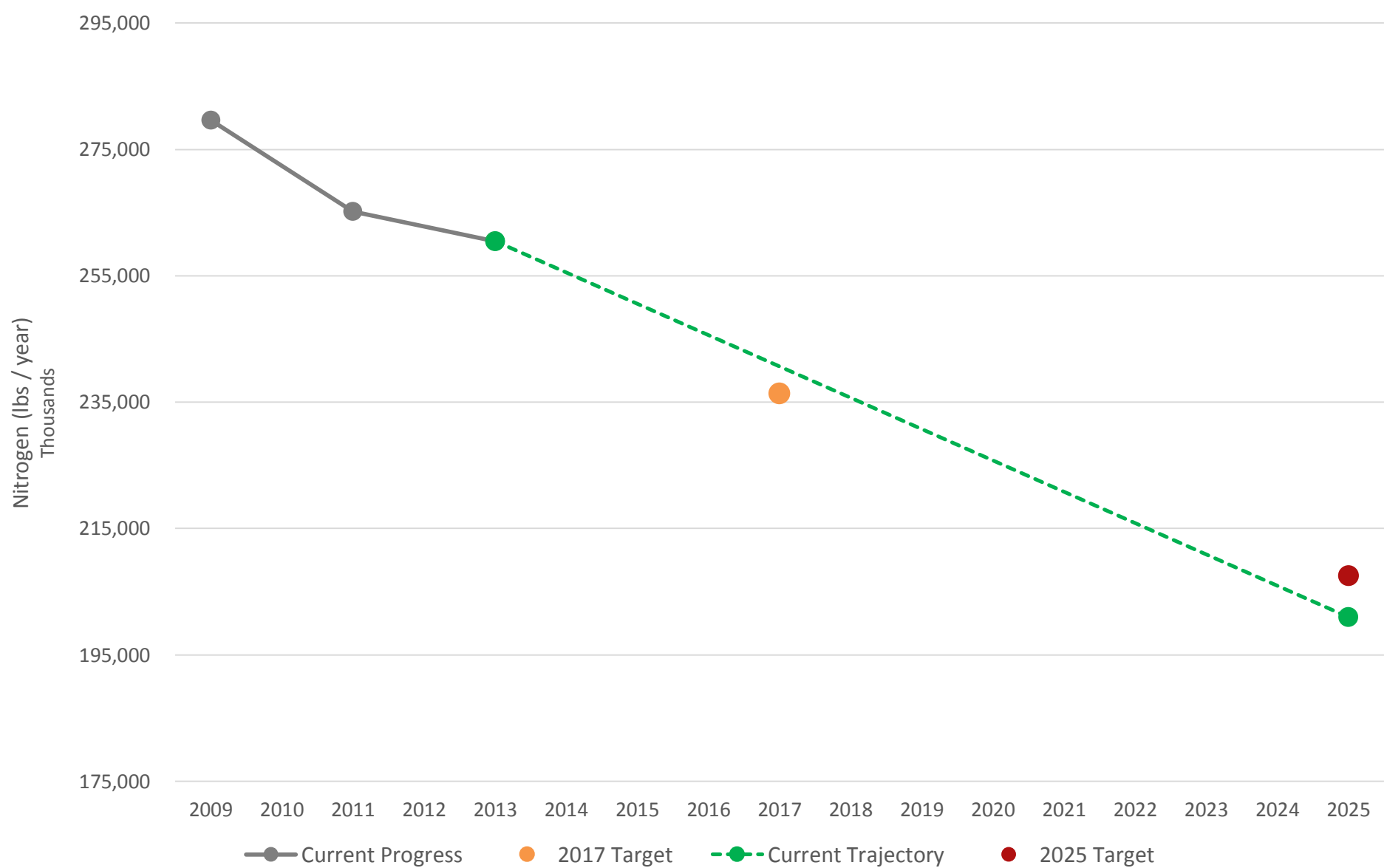
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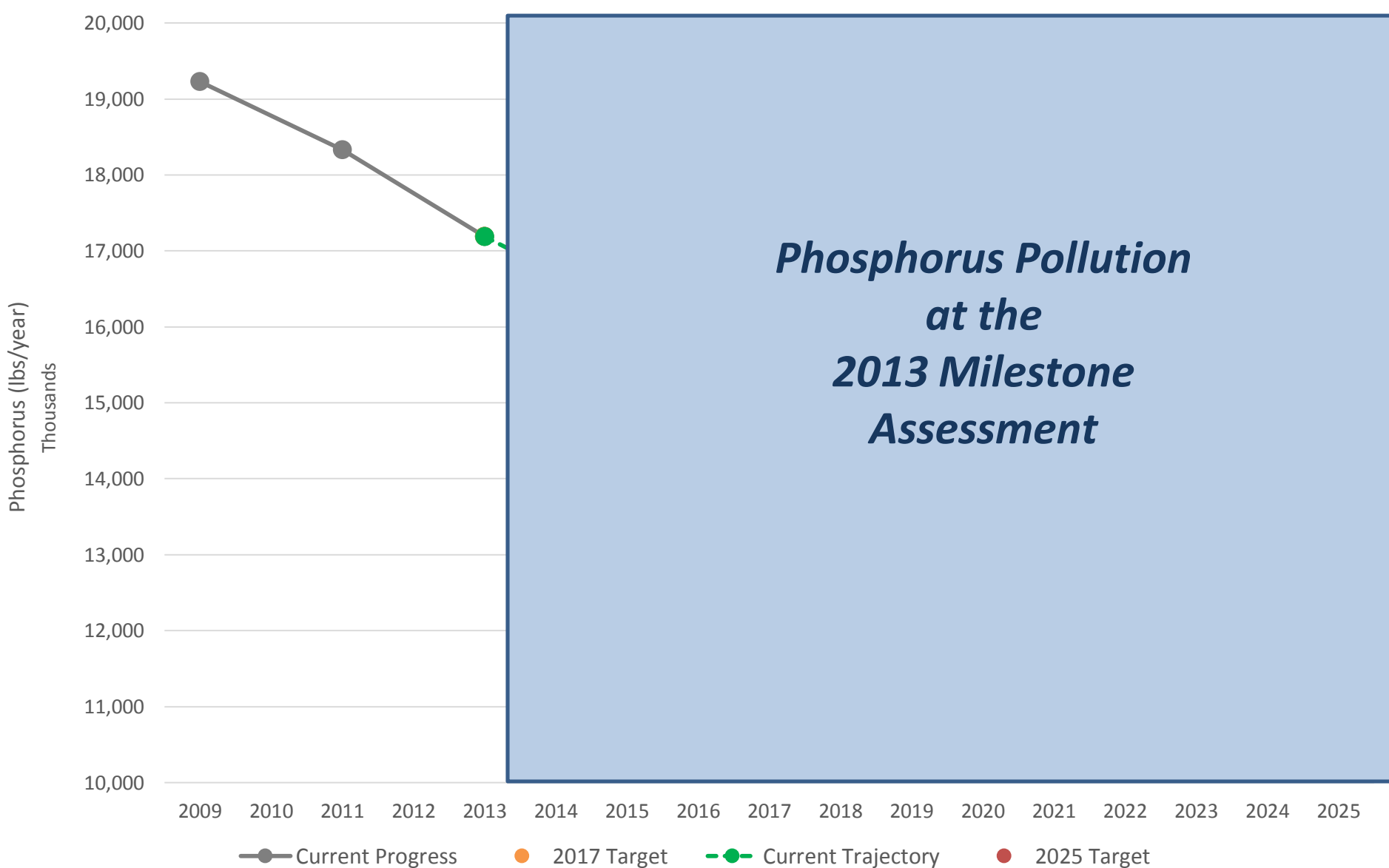
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Watershed Wide Nitrogen Pollution



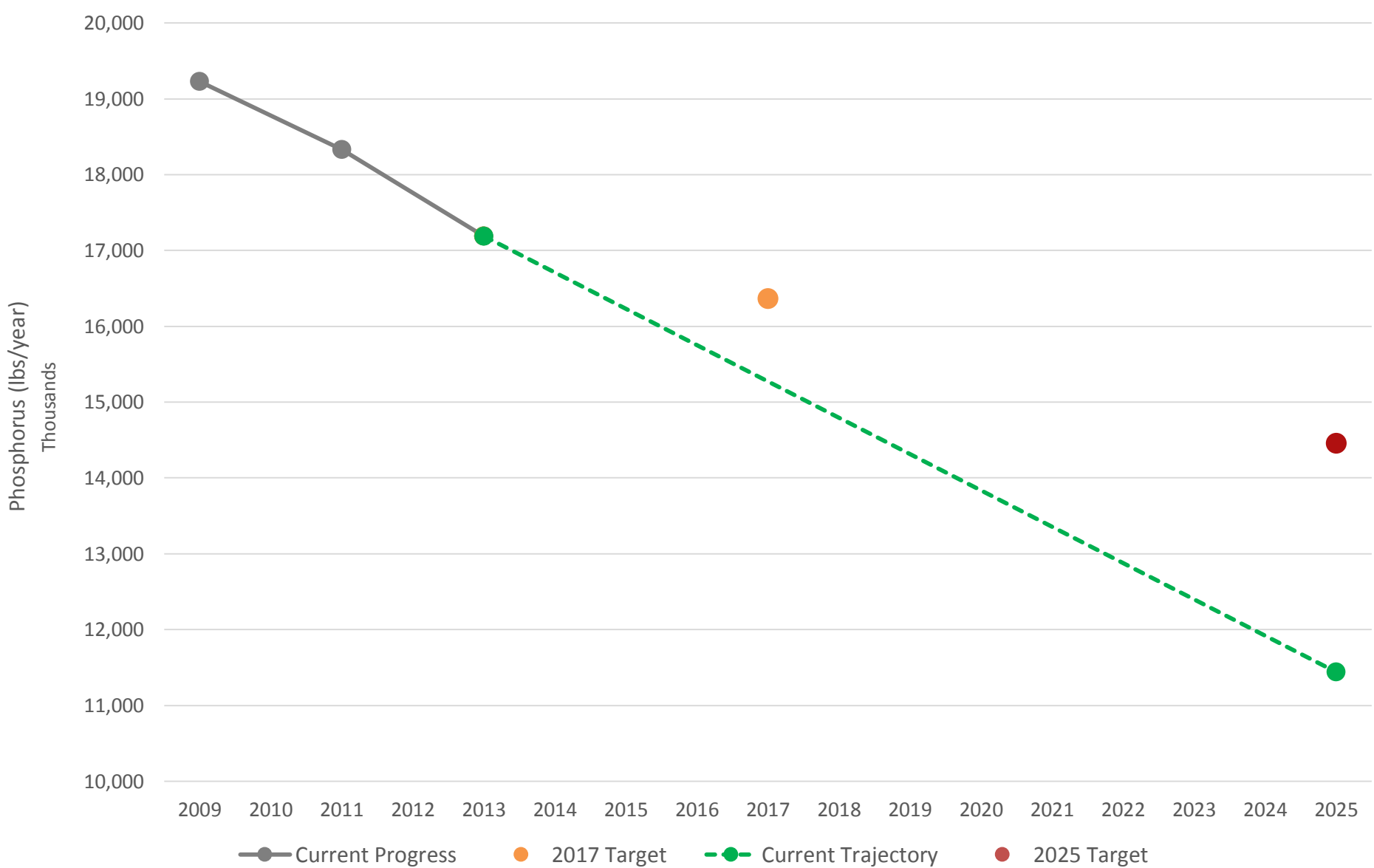
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Watershed Wide Nitrogen Pollution



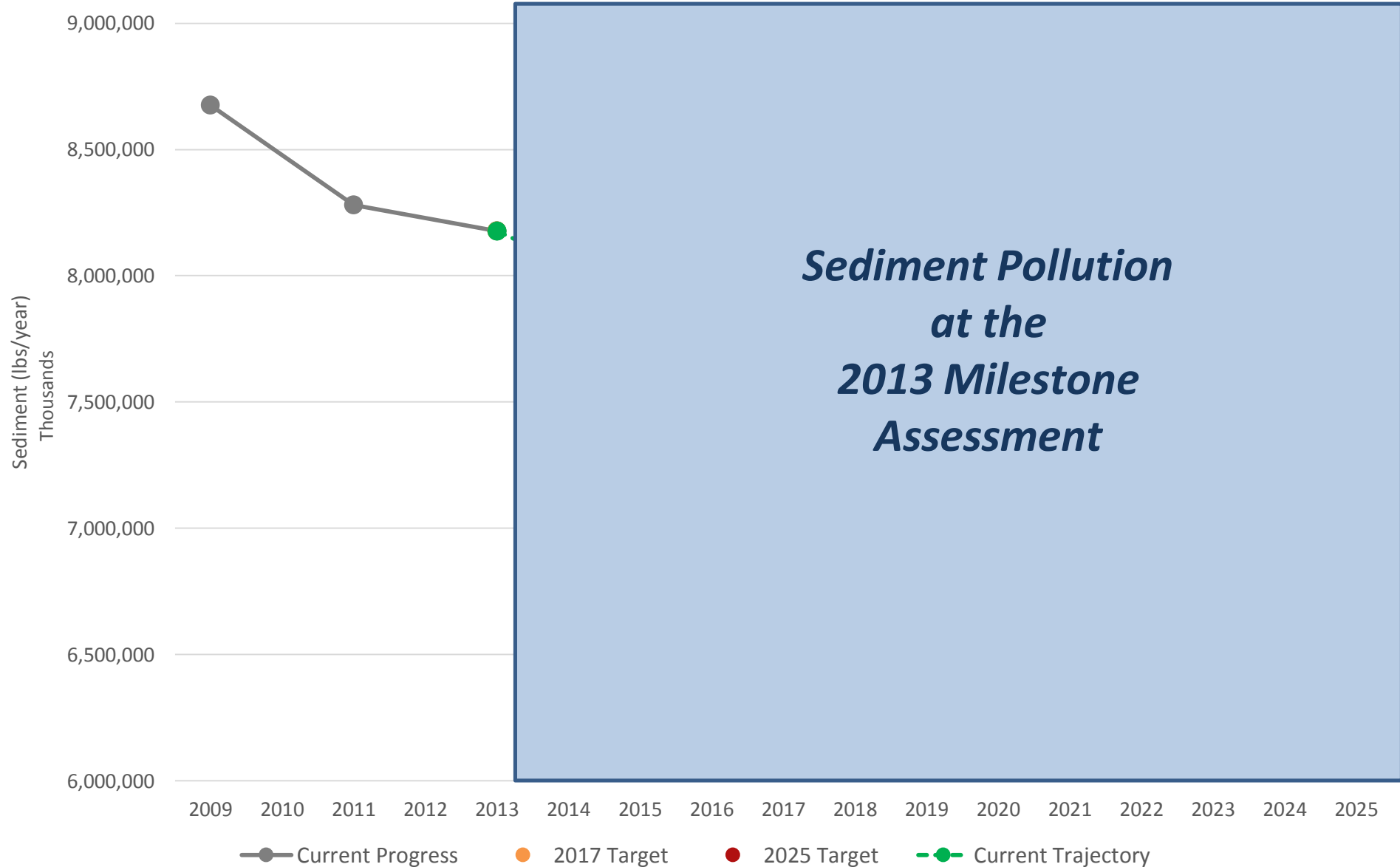
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**Watershed Wide
Phosphorus Pollution**



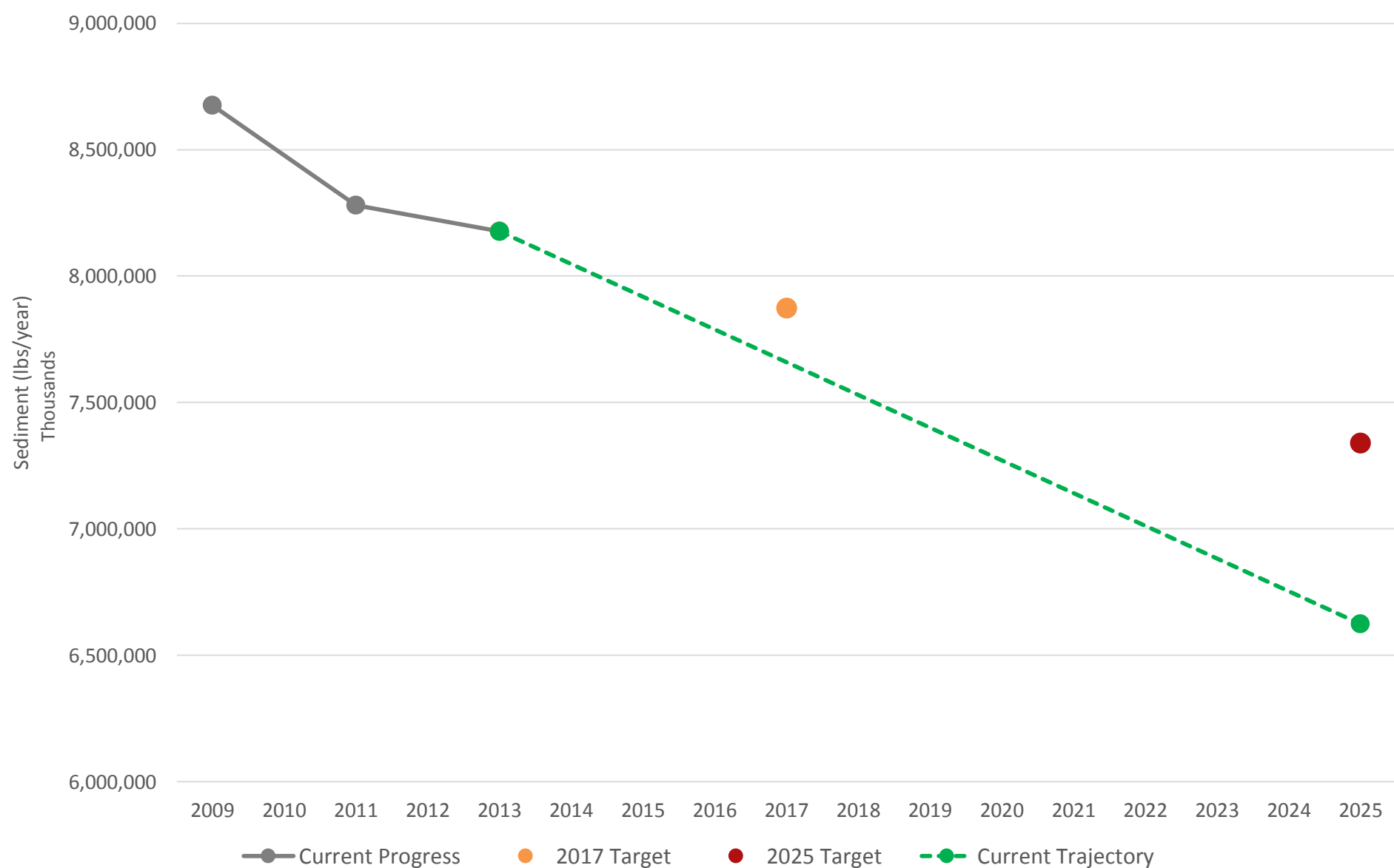
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Watershed Wide Phosphorus Pollution



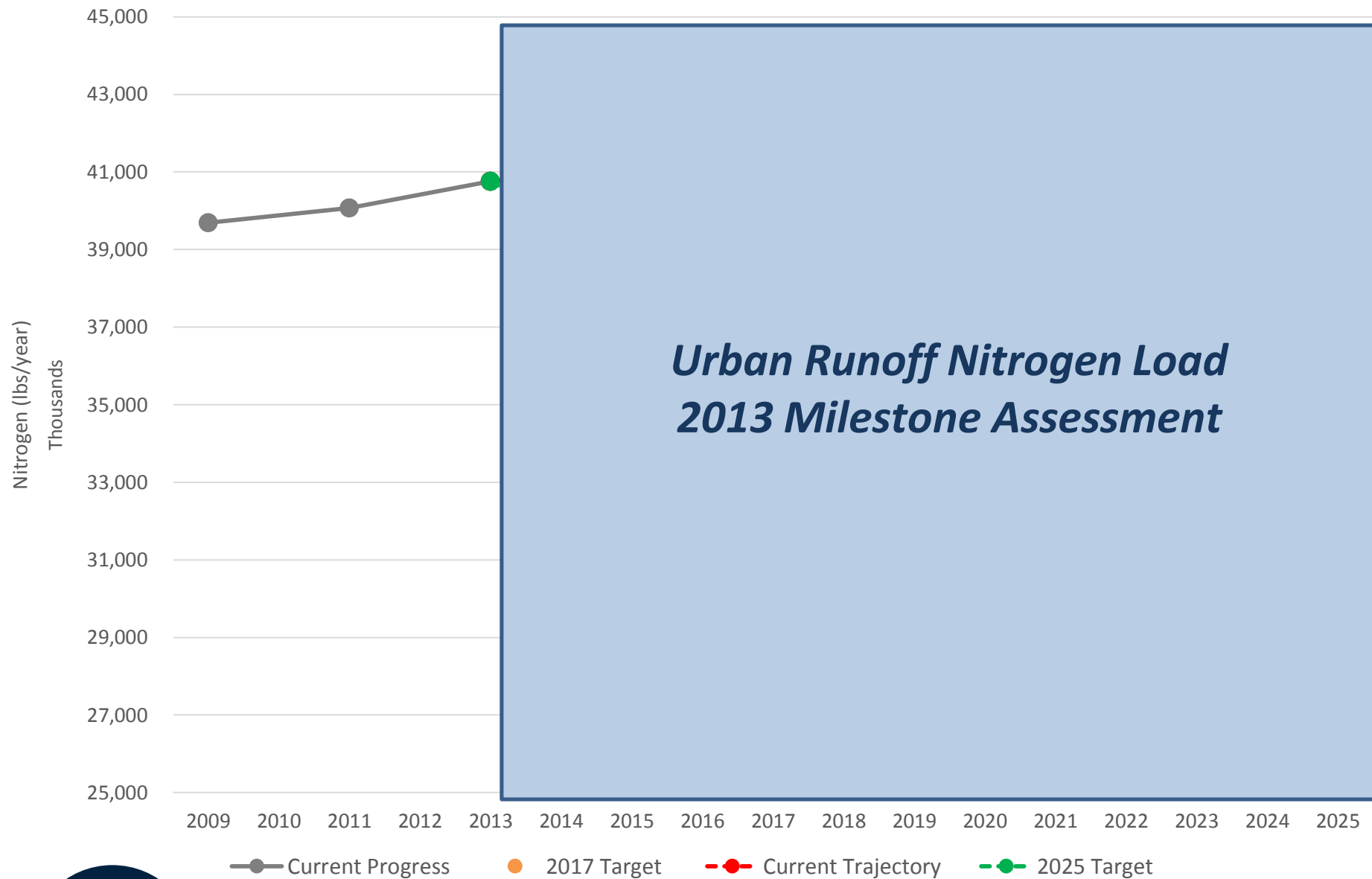
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**Watershed Wide
Sediment Pollution**



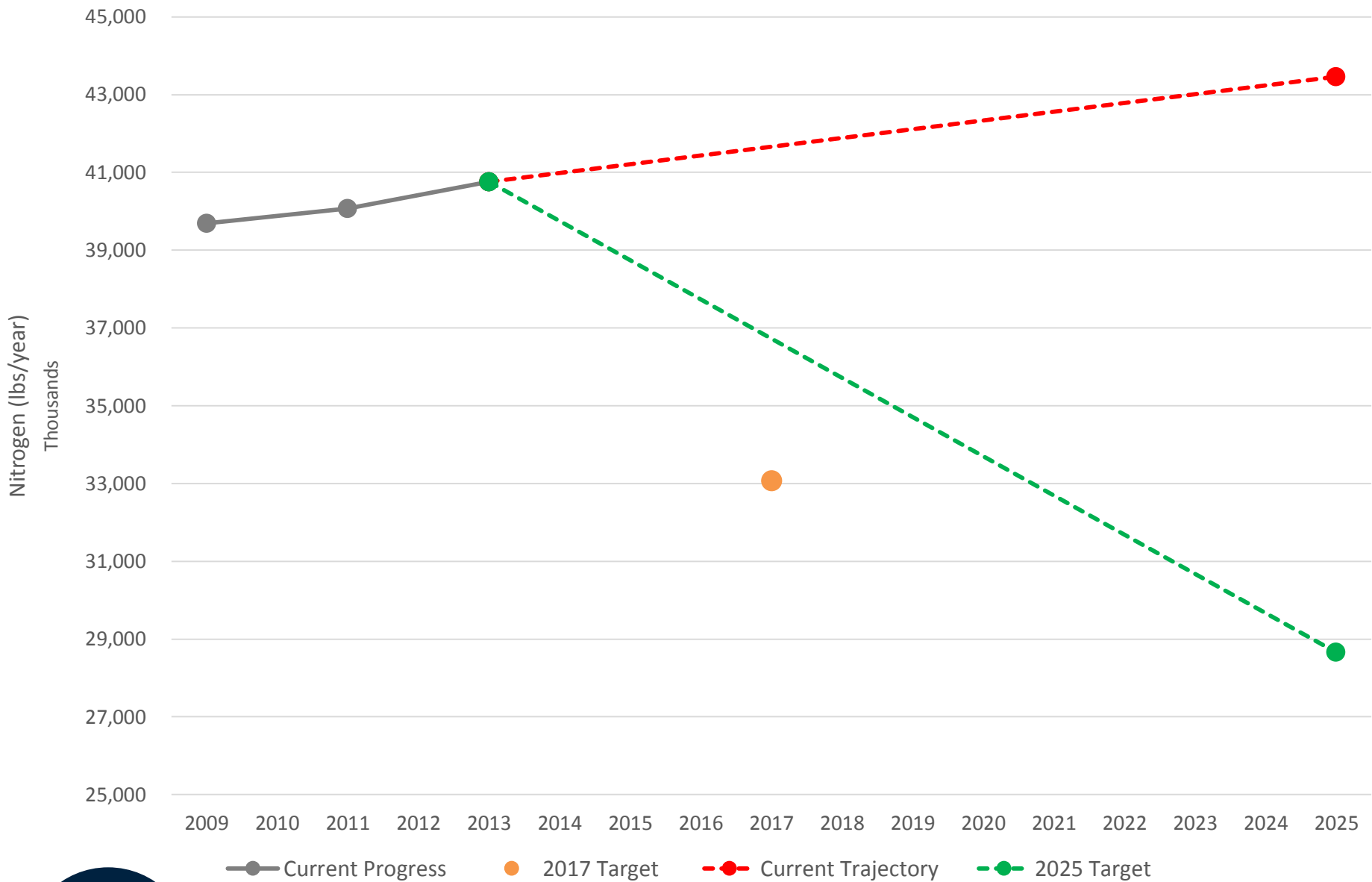
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Watershed Wide Sediment Pollution



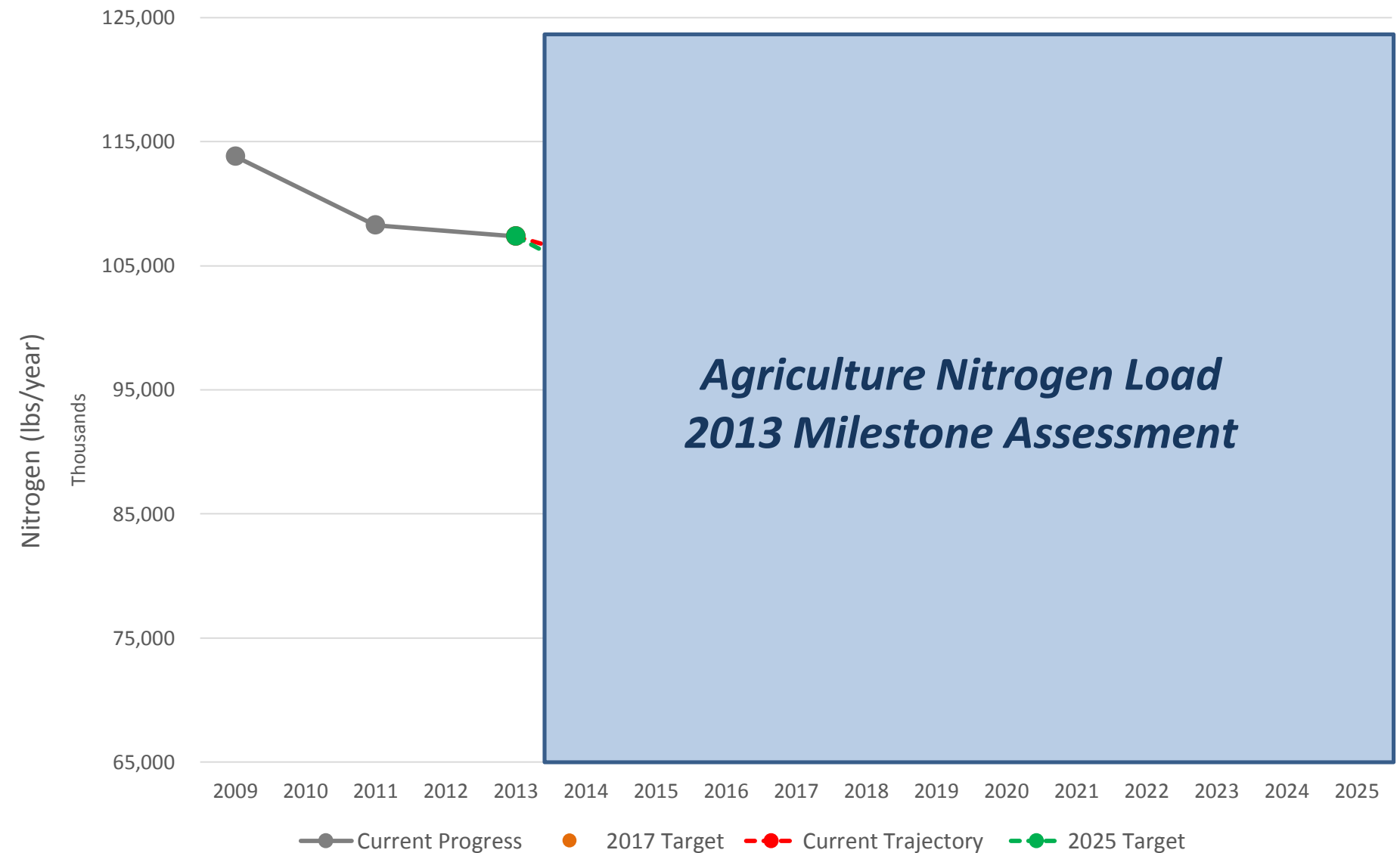
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**Watershed Wide
Urban Runoff Nitrogen Load**



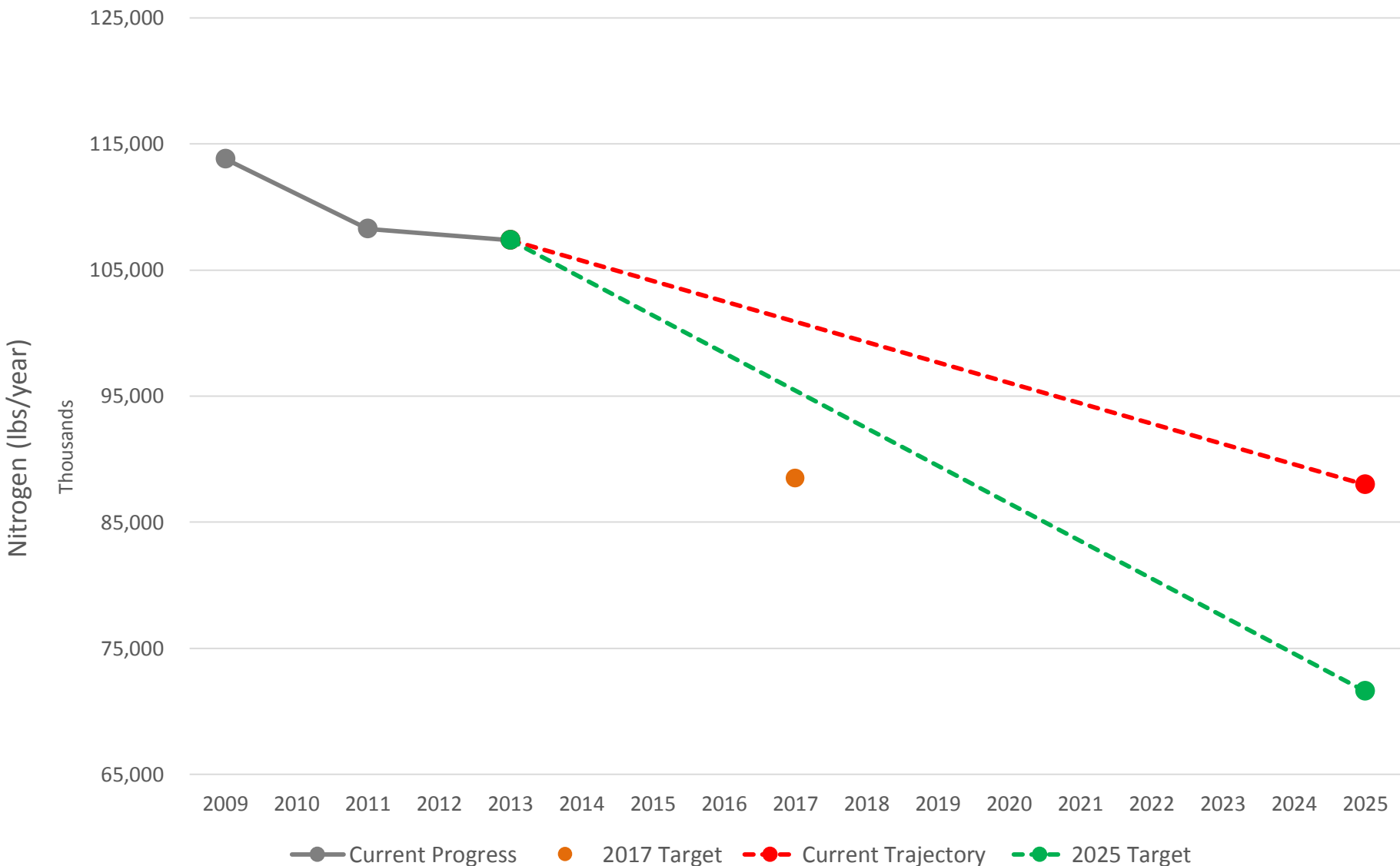
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Watershed Wide Urban Runoff Nitrogen Load



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**Watershed Wide
Agriculture Nitrogen Load**



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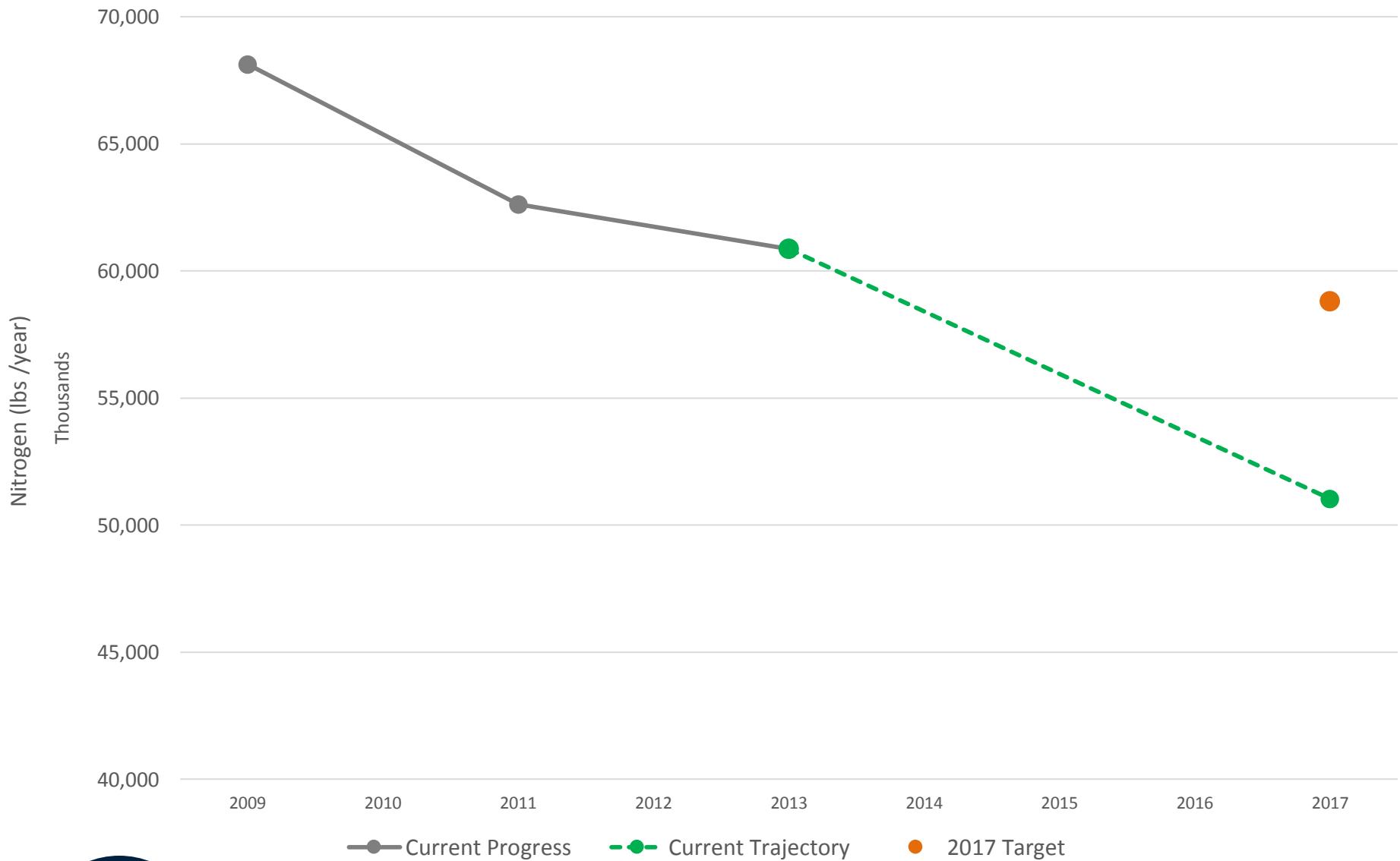
Watershed Wide Agriculture Nitrogen Load

How are things in Virginia?



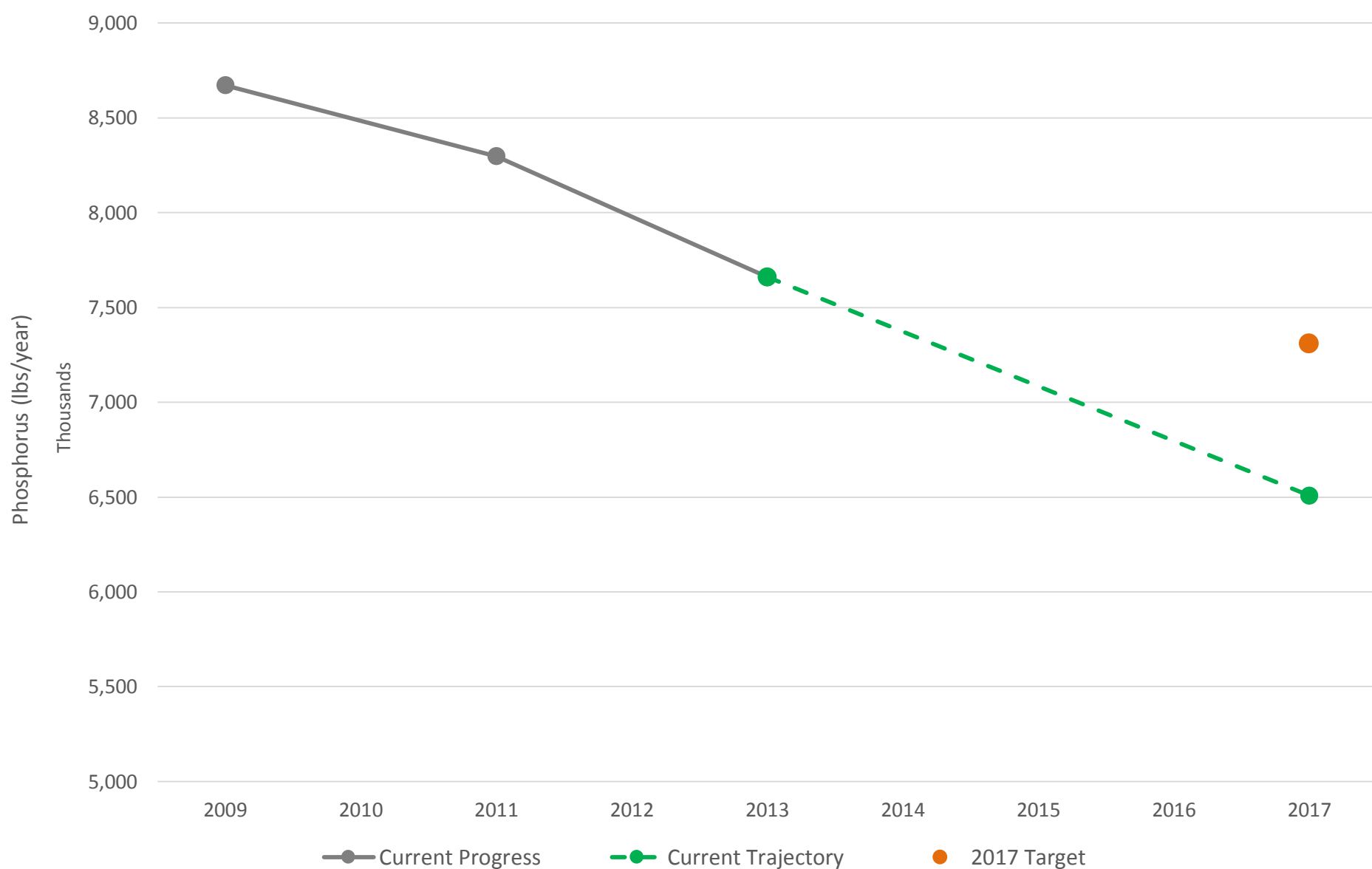
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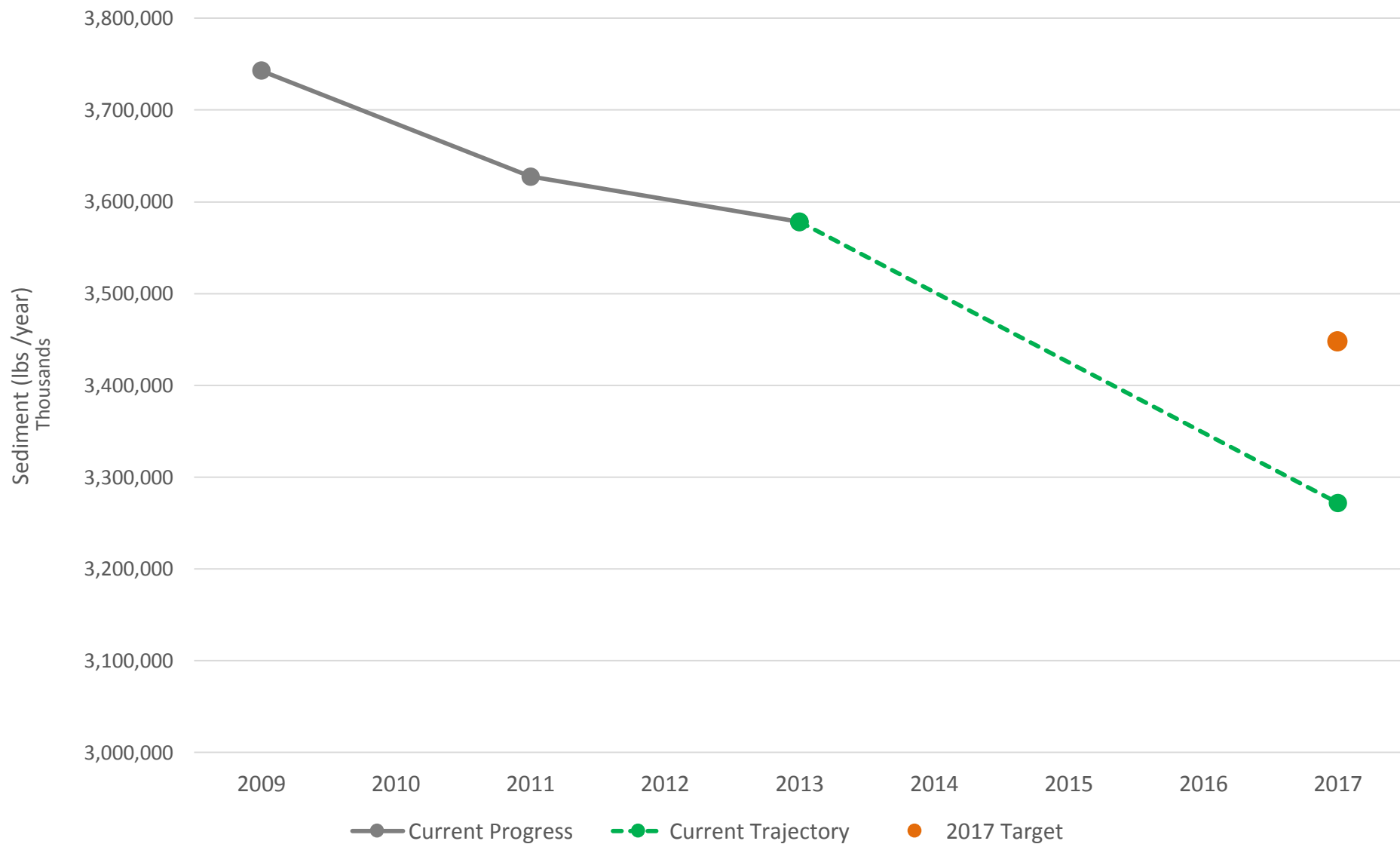
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Virginia Nitrogen Pollution



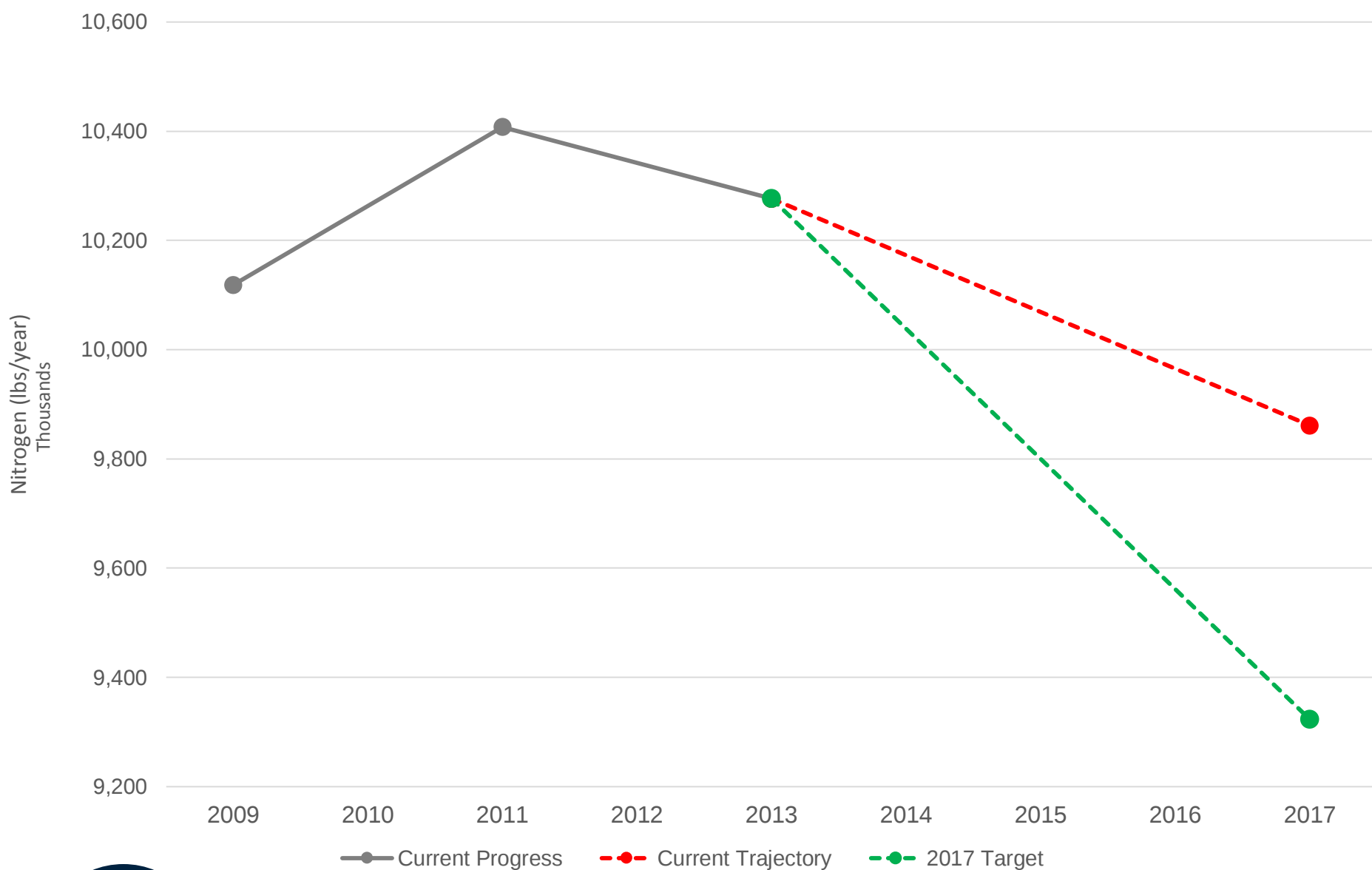
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Virginia Phosphorus Pollution



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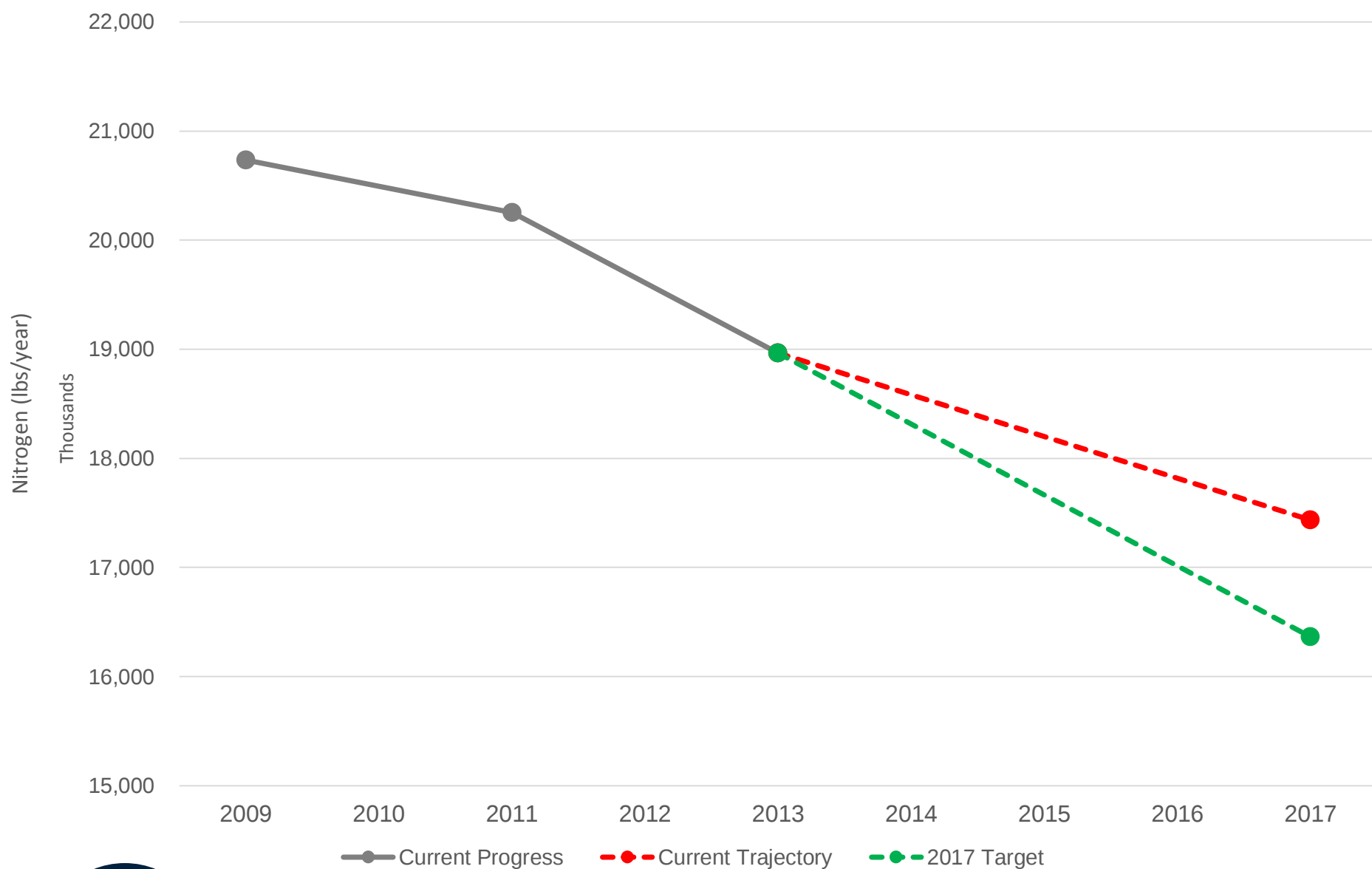
Virginia Sediment Pollution



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Virginia

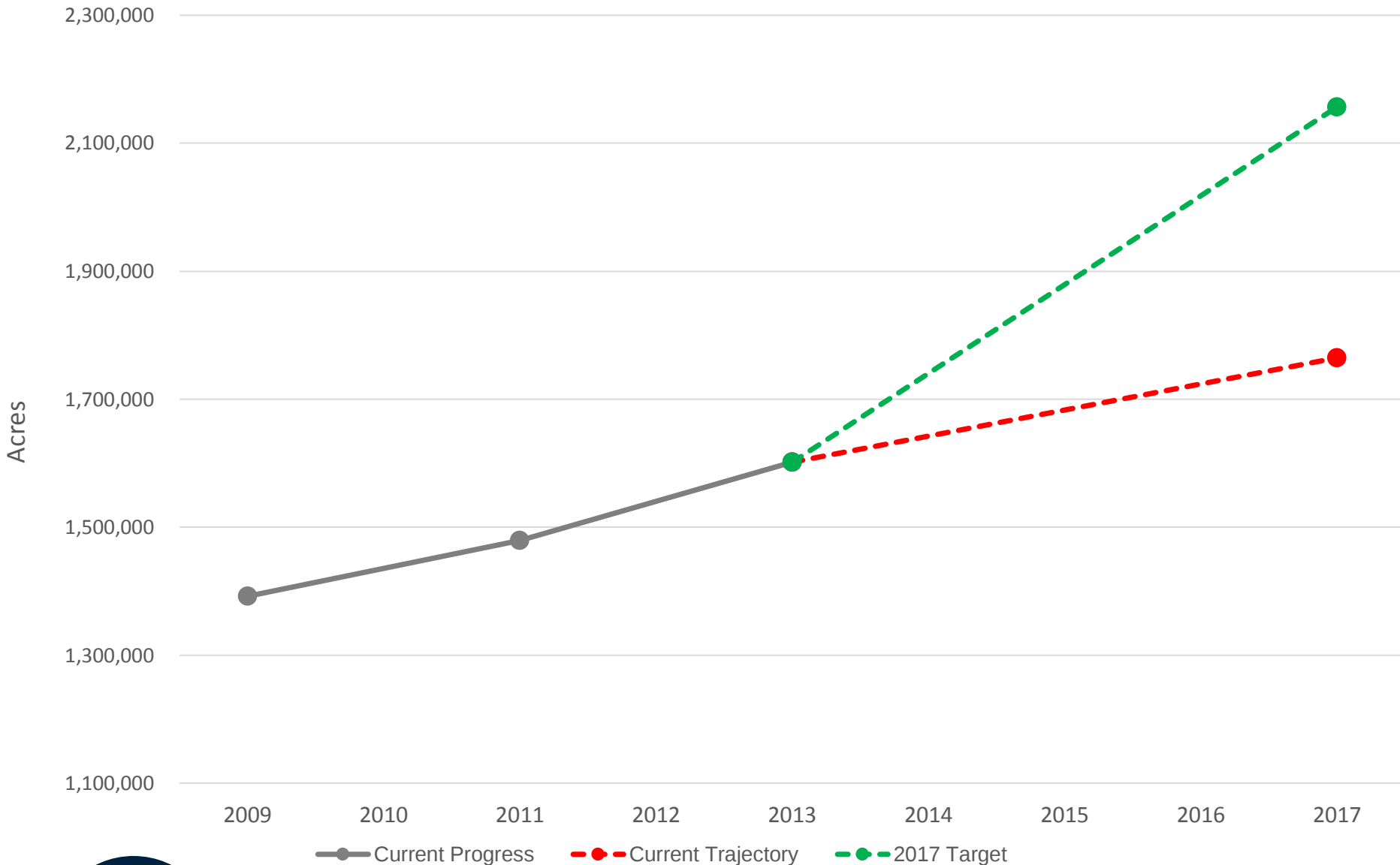
Nitrogen Pollution – Urban Runoff



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Virginia

Nitrogen Pollution – Agriculture



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Virginia

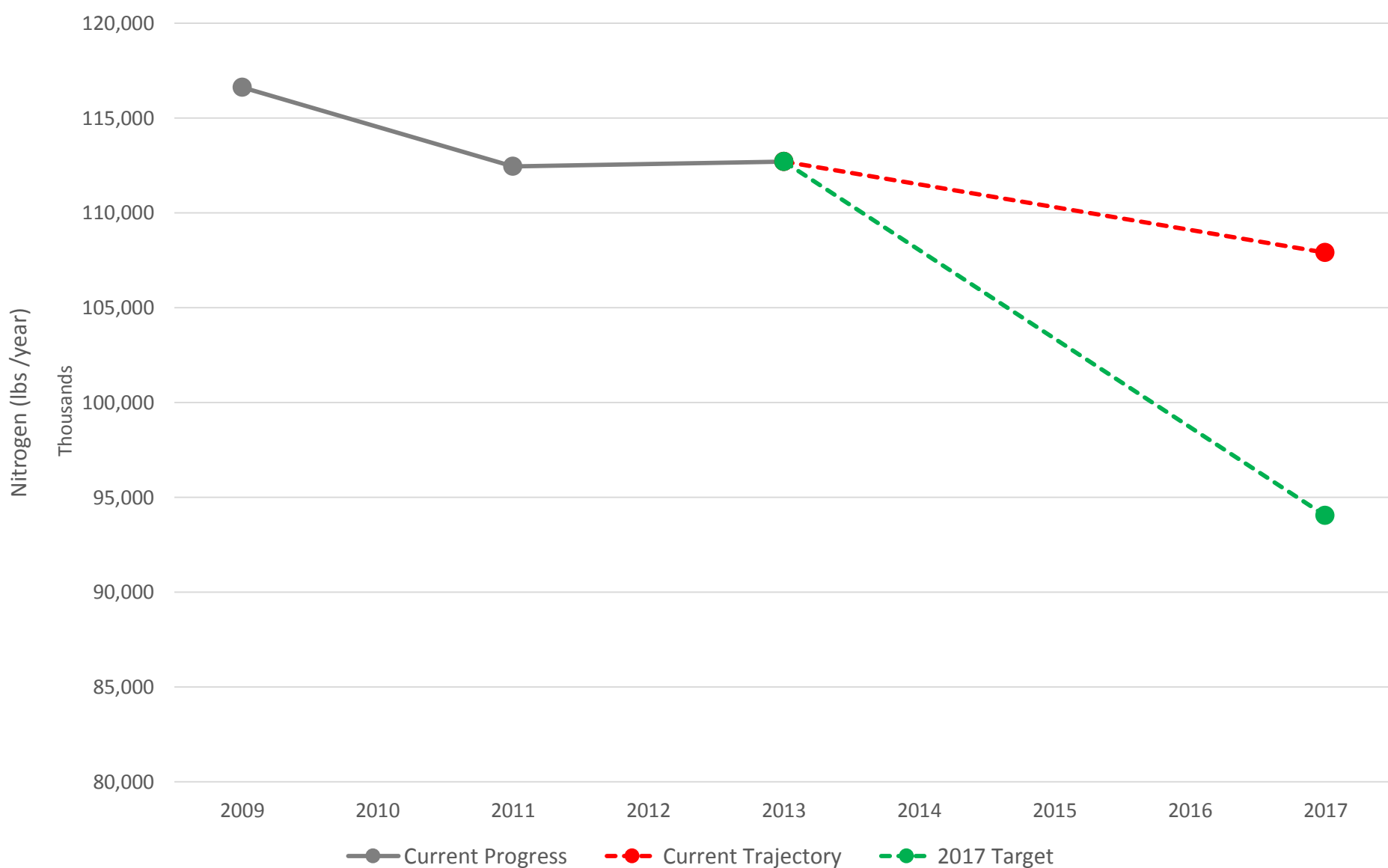
Agriculture BMPs Composite

How are things in Pennsylvania?



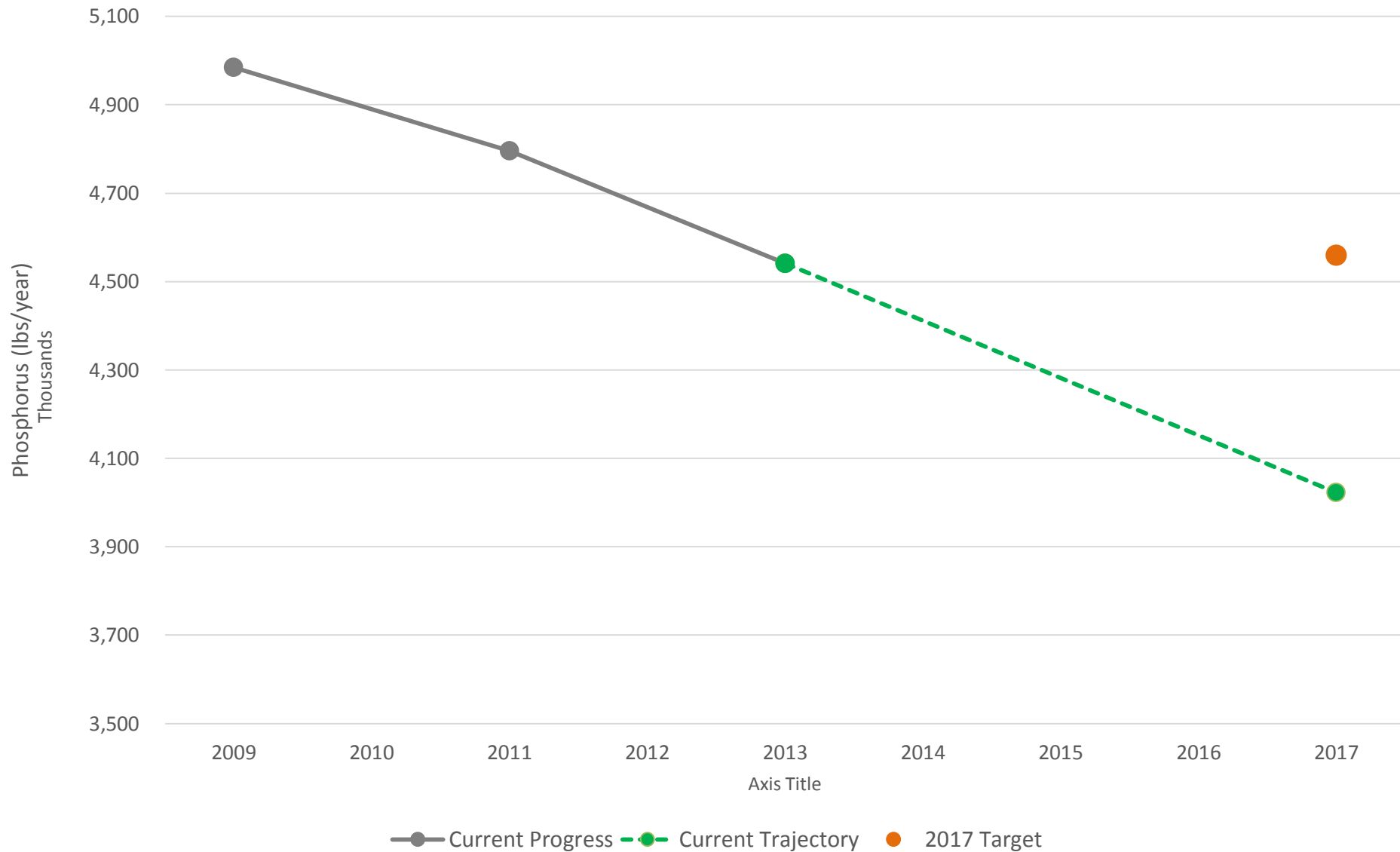
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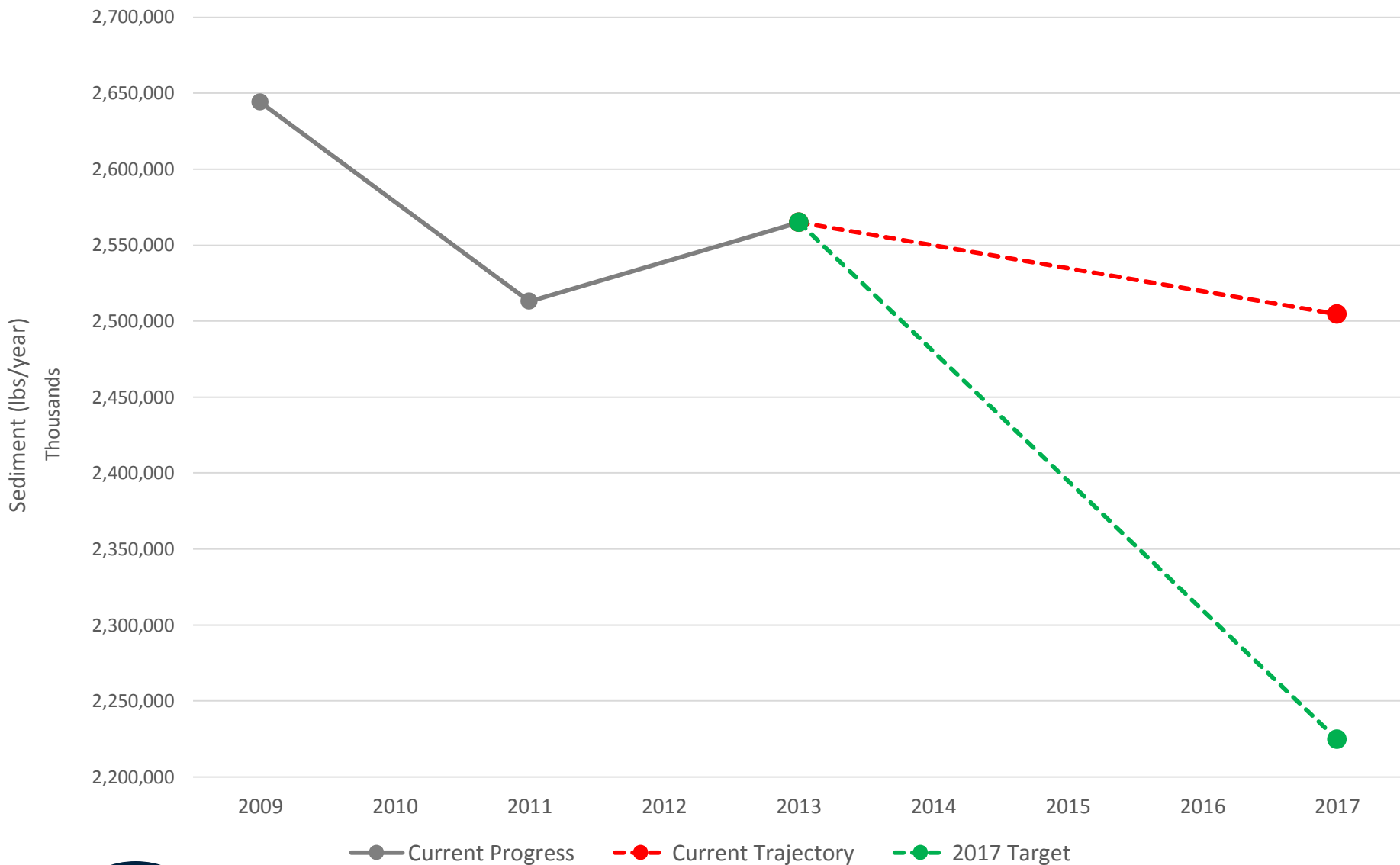
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Pennsylvania Nitrogen Pollution



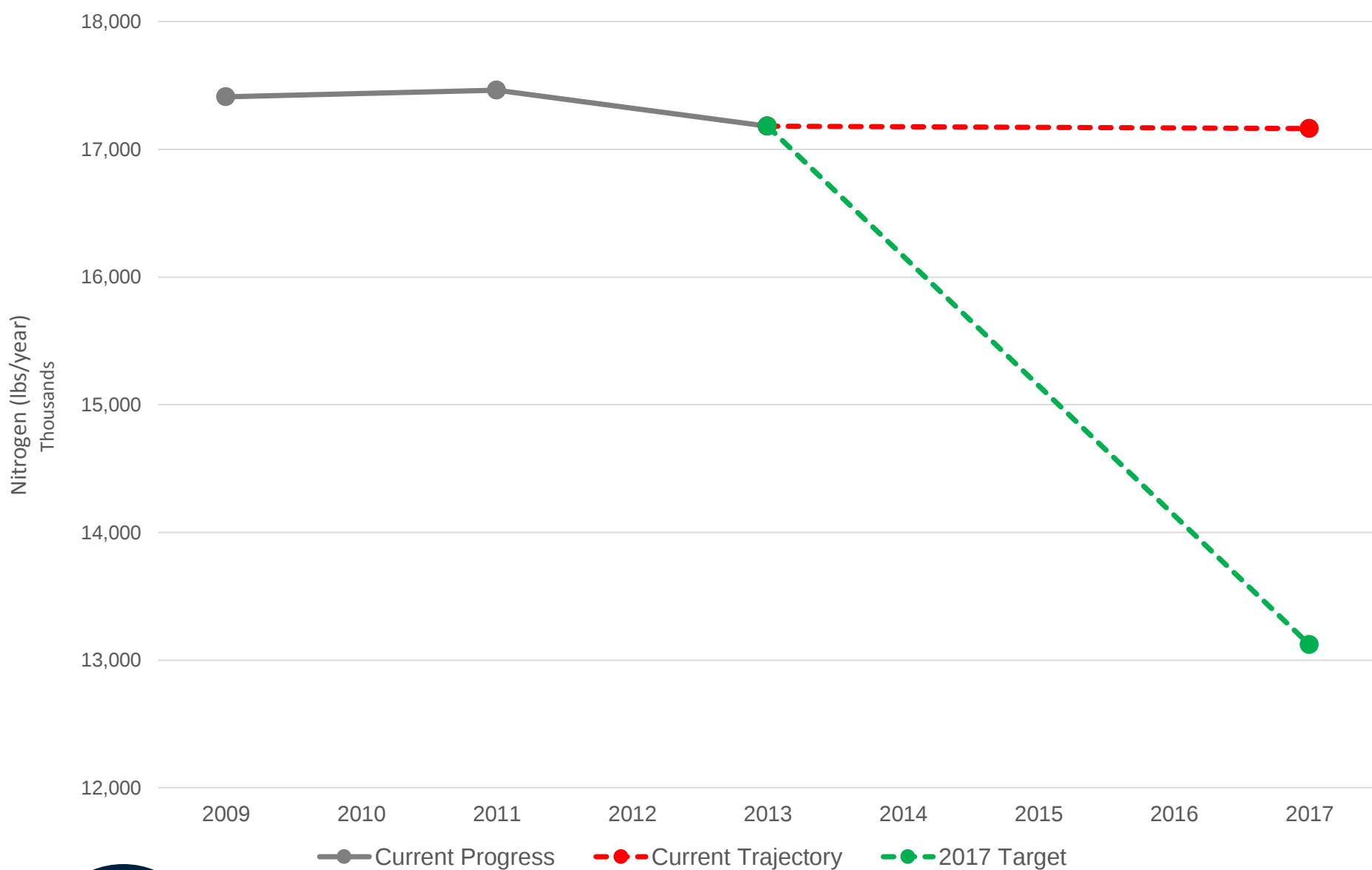
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Pennsylvania Phosphorus Pollution



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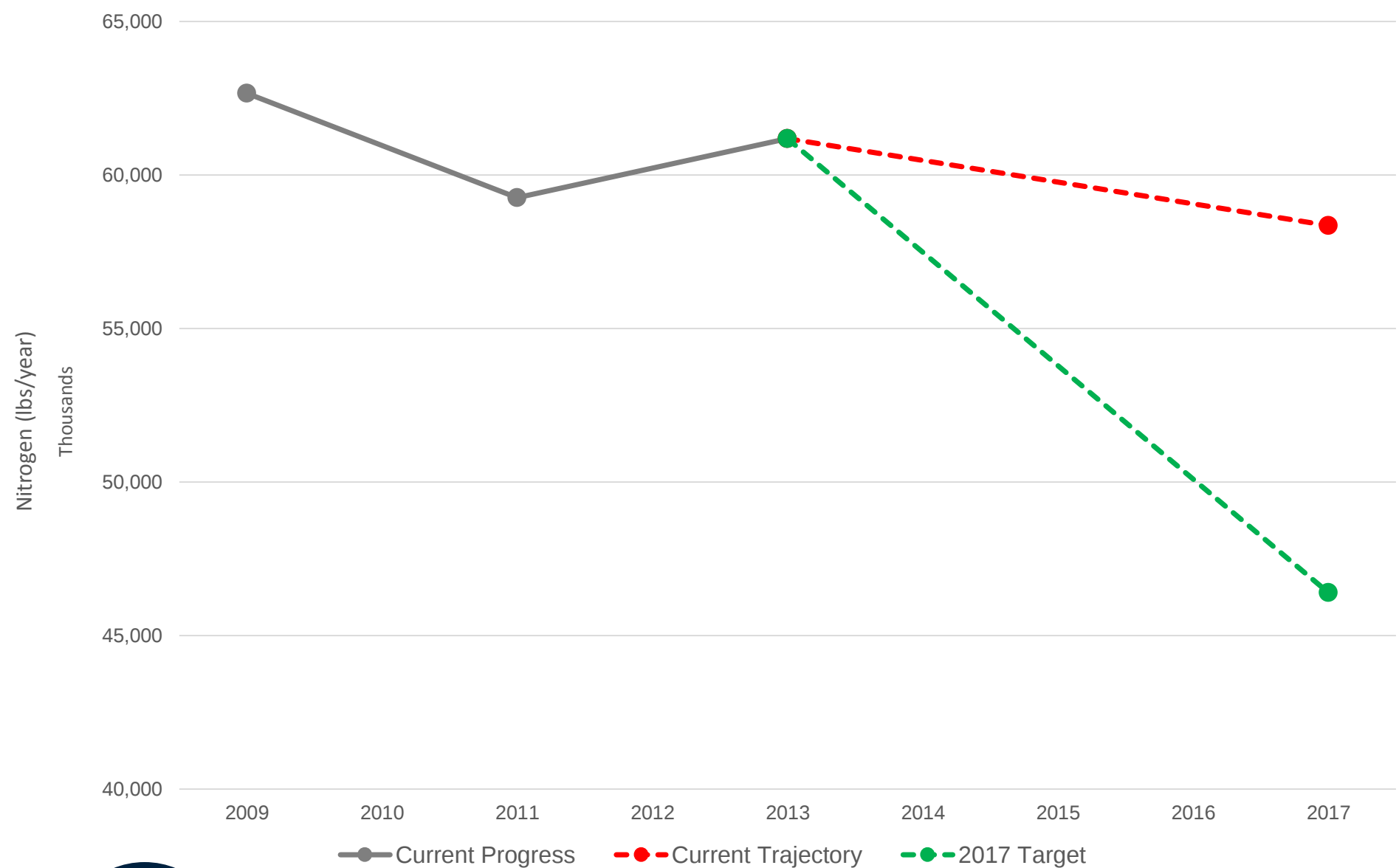
Pennsylvania Sediment Pollution



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Pennsylvania

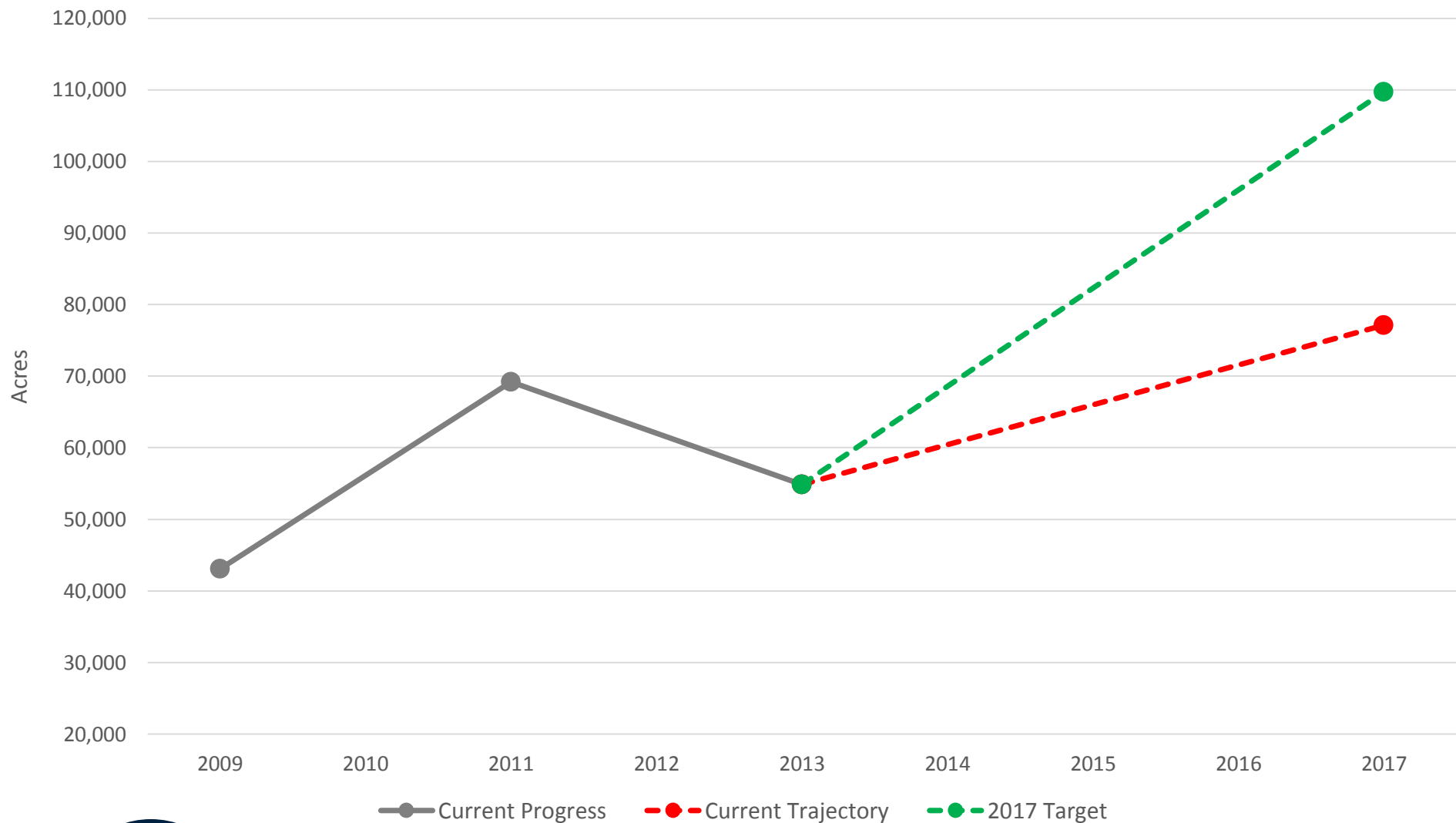
Nitrogen Pollution – Urban Runoff



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Pennsylvania

Nitrogen Pollution – Agriculture



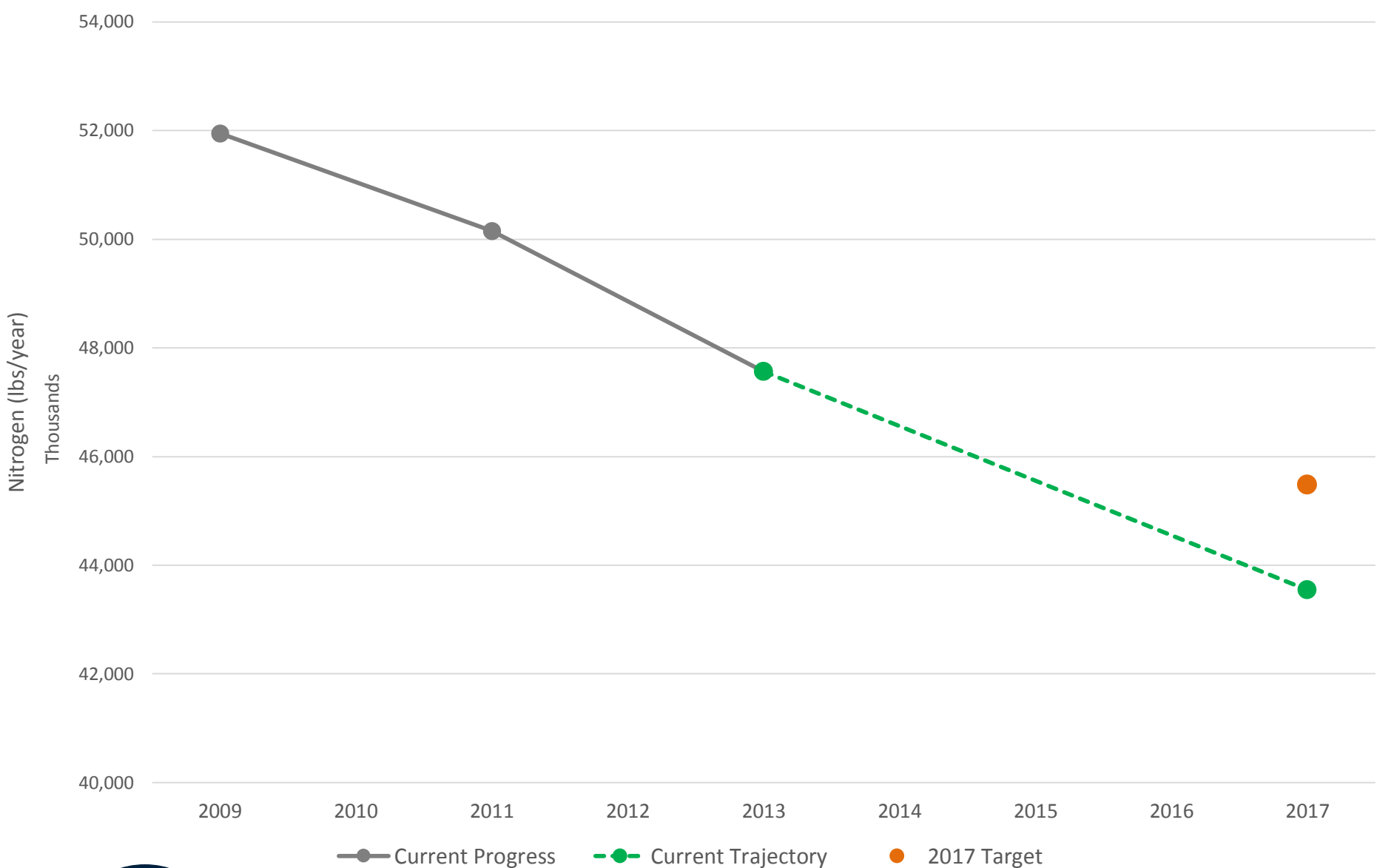
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Pennsylvania Agricultural Forested Buffers

How are things in Maryland?

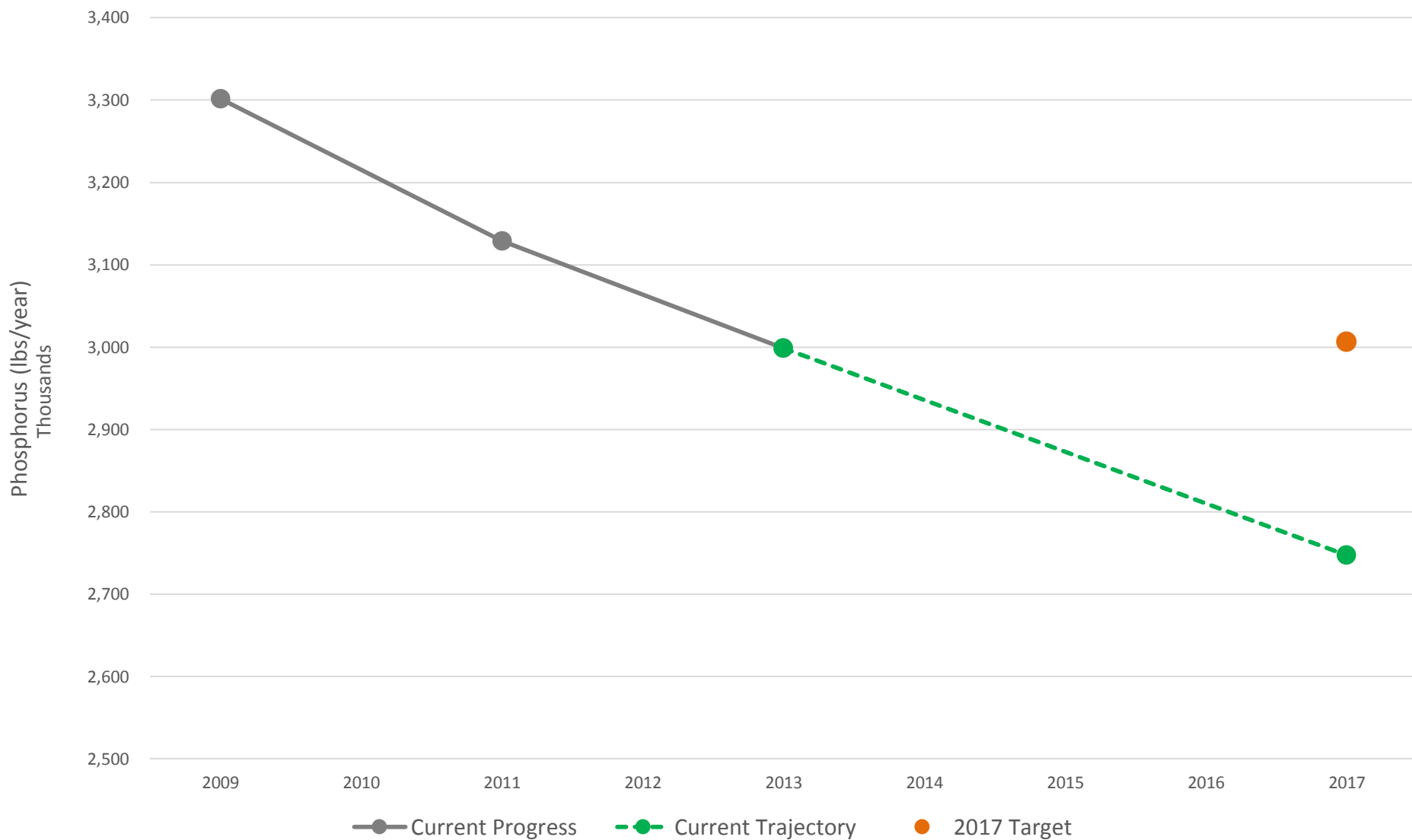


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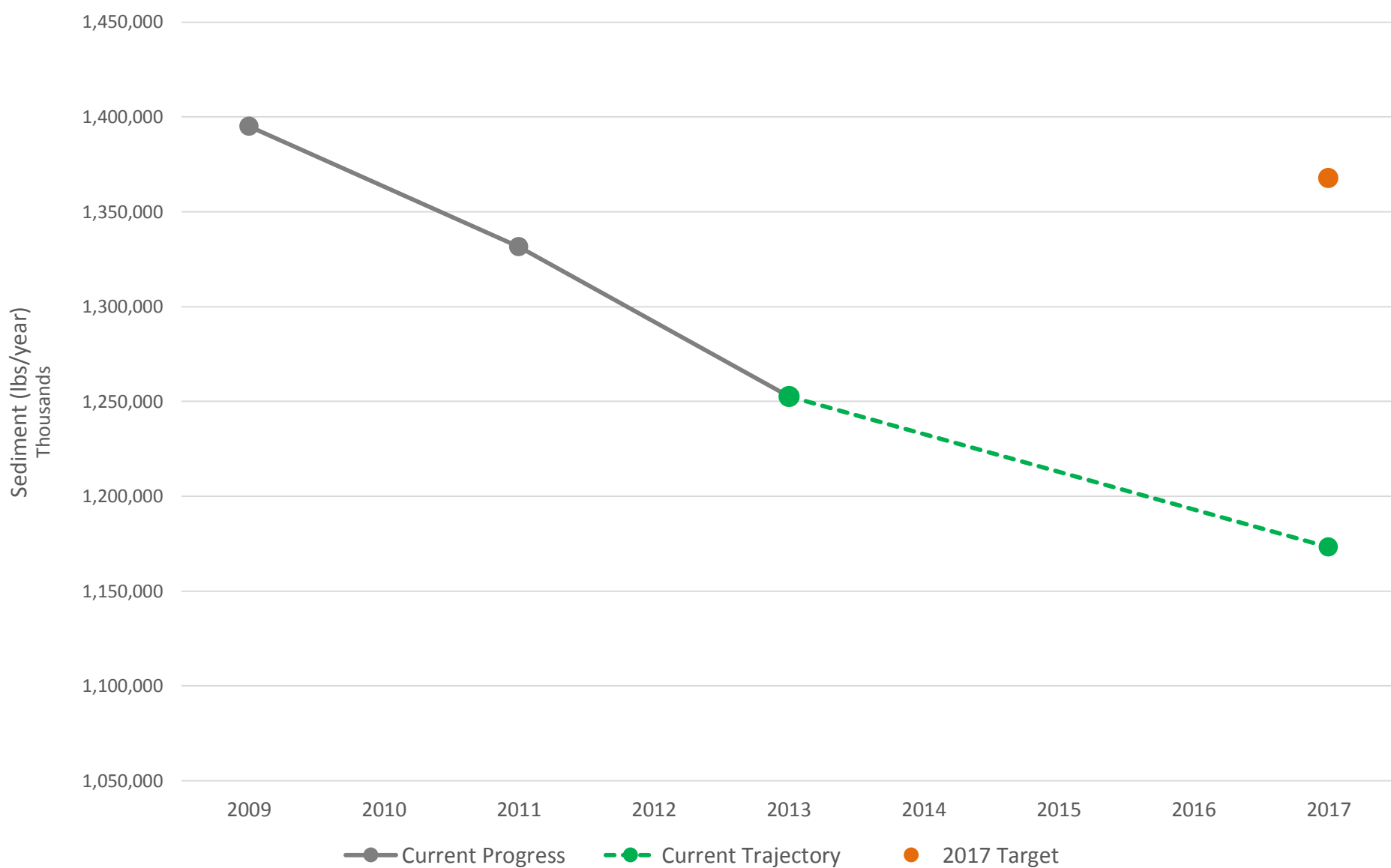
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Maryland Nitrogen Pollution



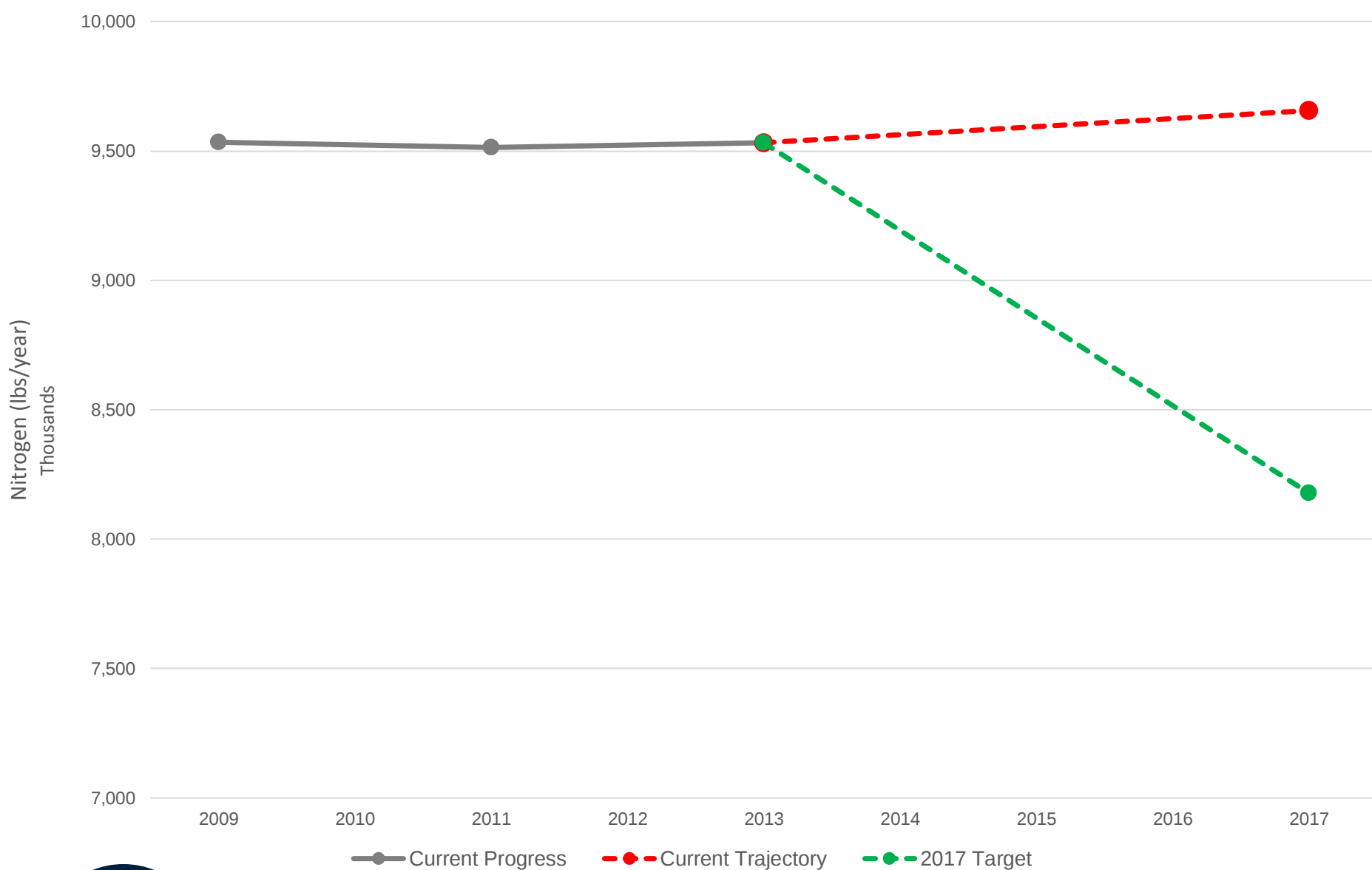
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Maryland Phosphorus Pollution



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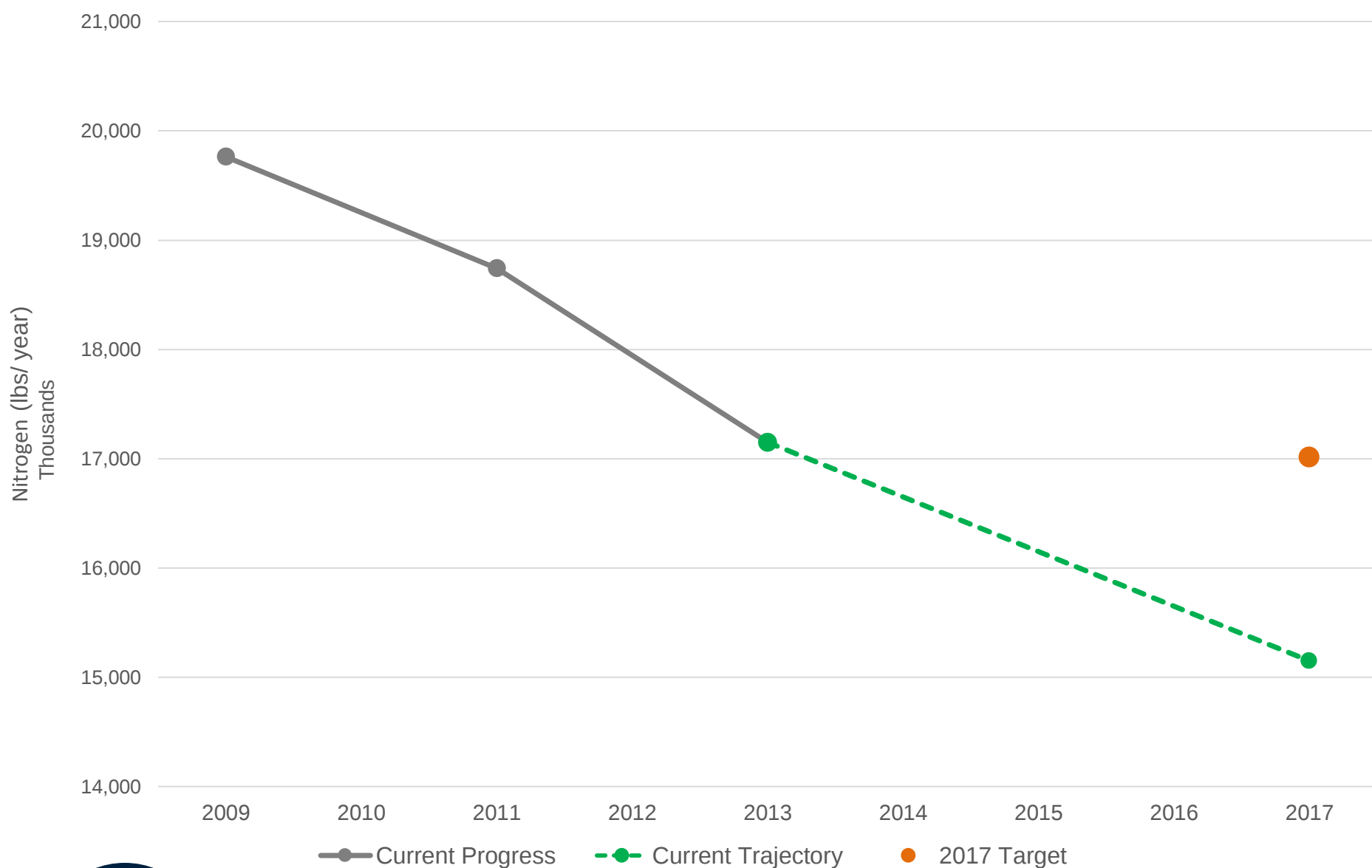
Maryland Sediment Pollution



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Maryland

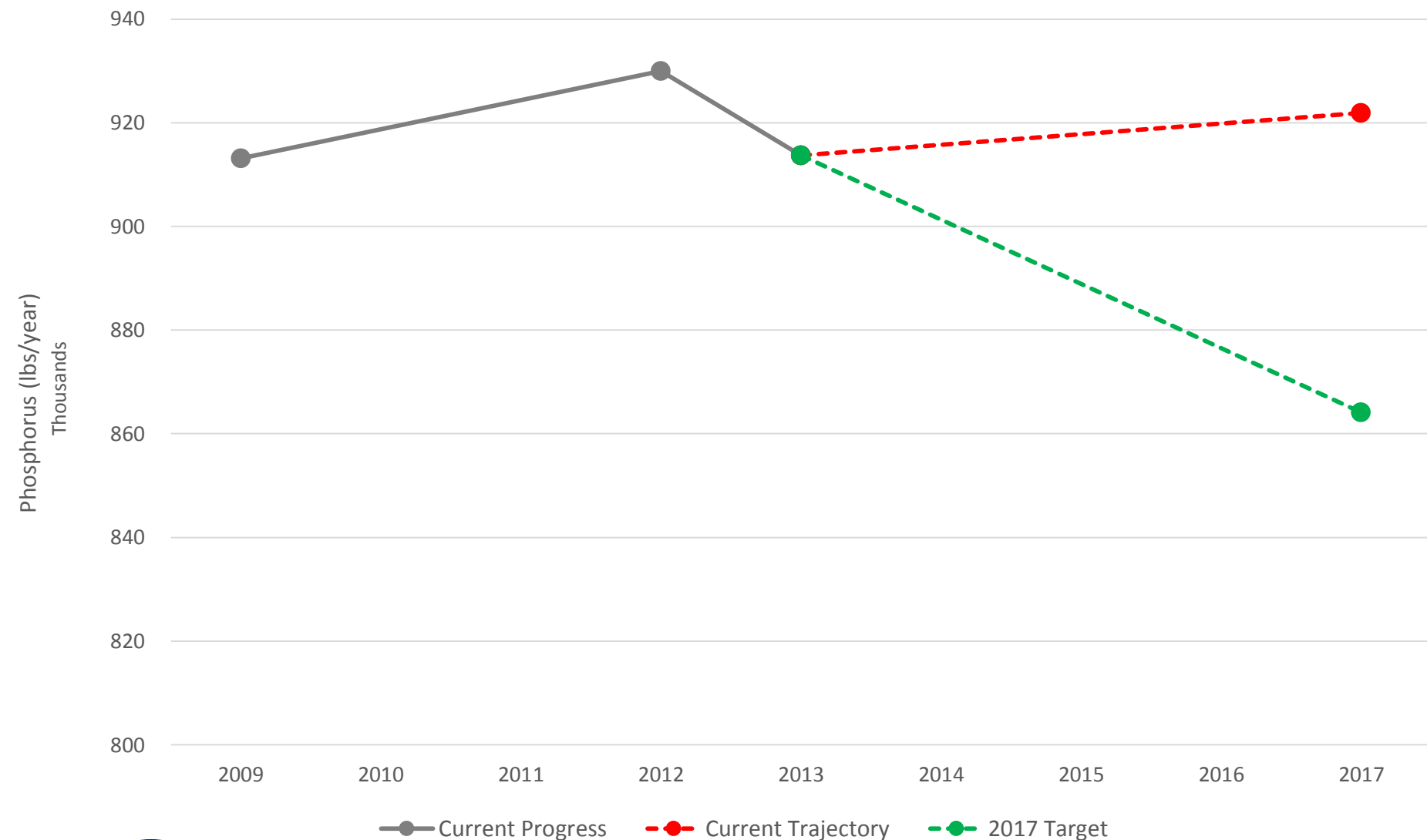
Nitrogen Pollution – Urban Runoff



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Maryland

Nitrogen Pollution – Agriculture



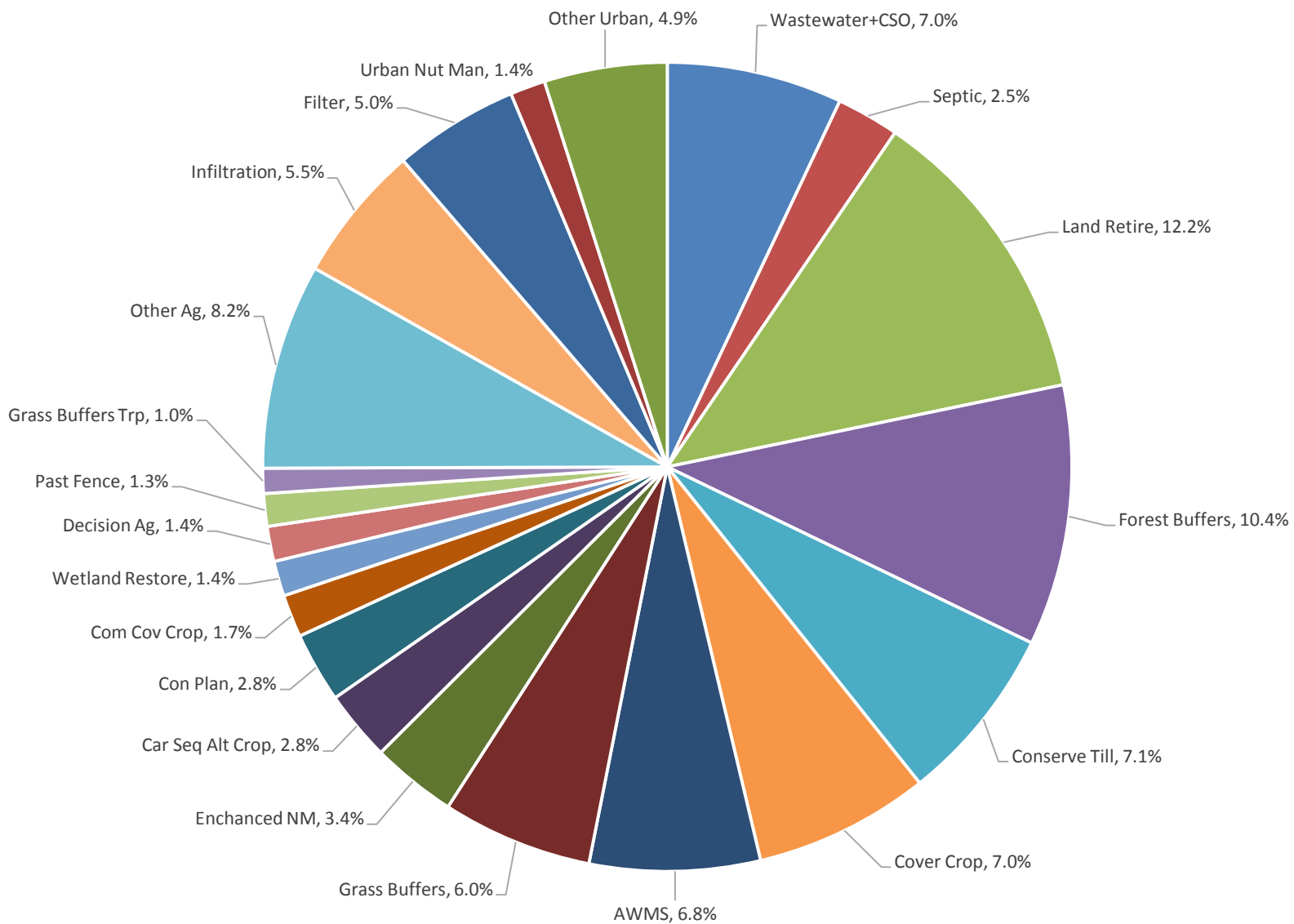
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Maryland Eastern Shore Phosphorus Loads: Agriculture

Are we making progress with BMP implementation?

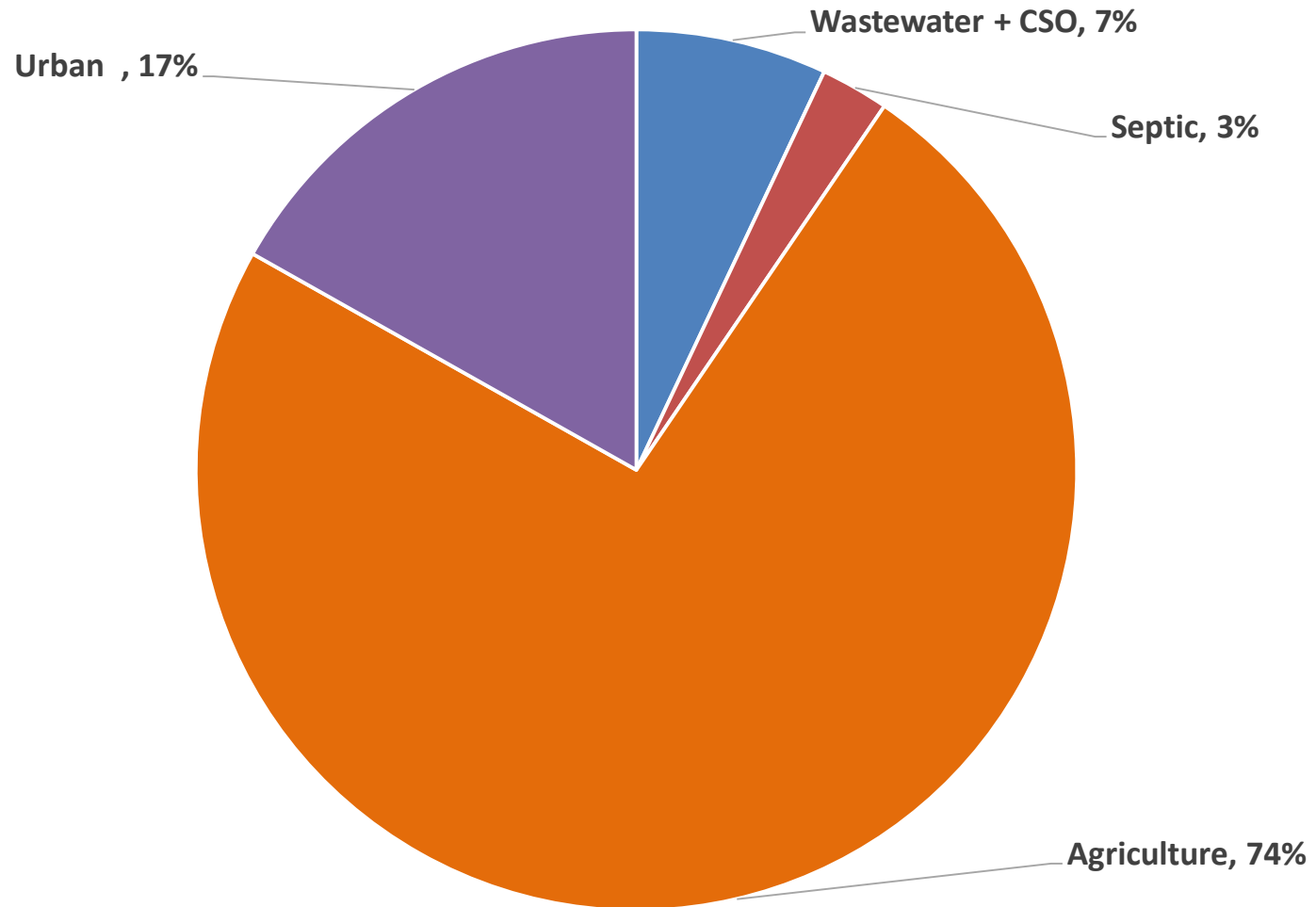


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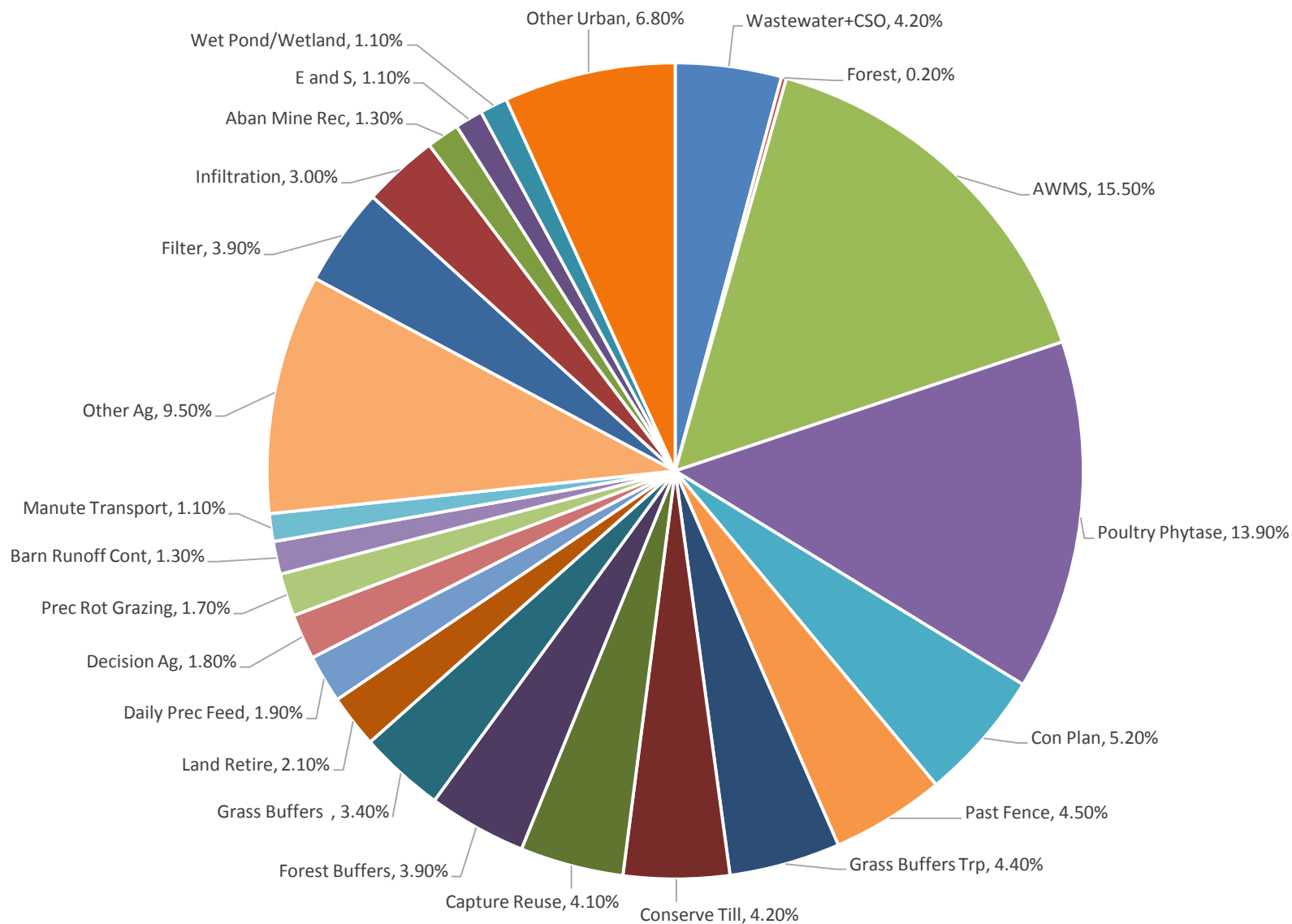
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Nitrogen Relative Load Reductions



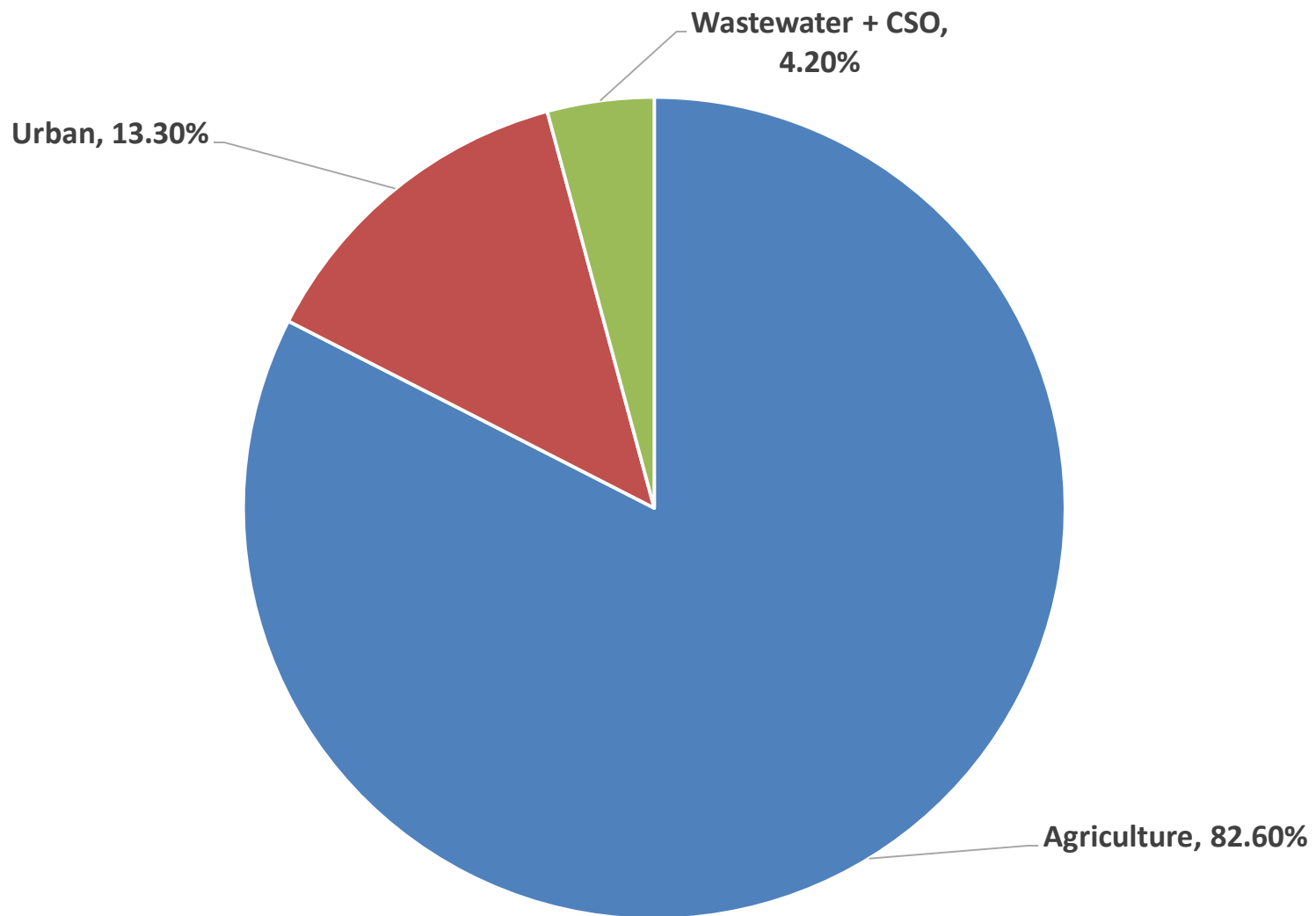
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**Nitrogen Reductions
Needed by Source**



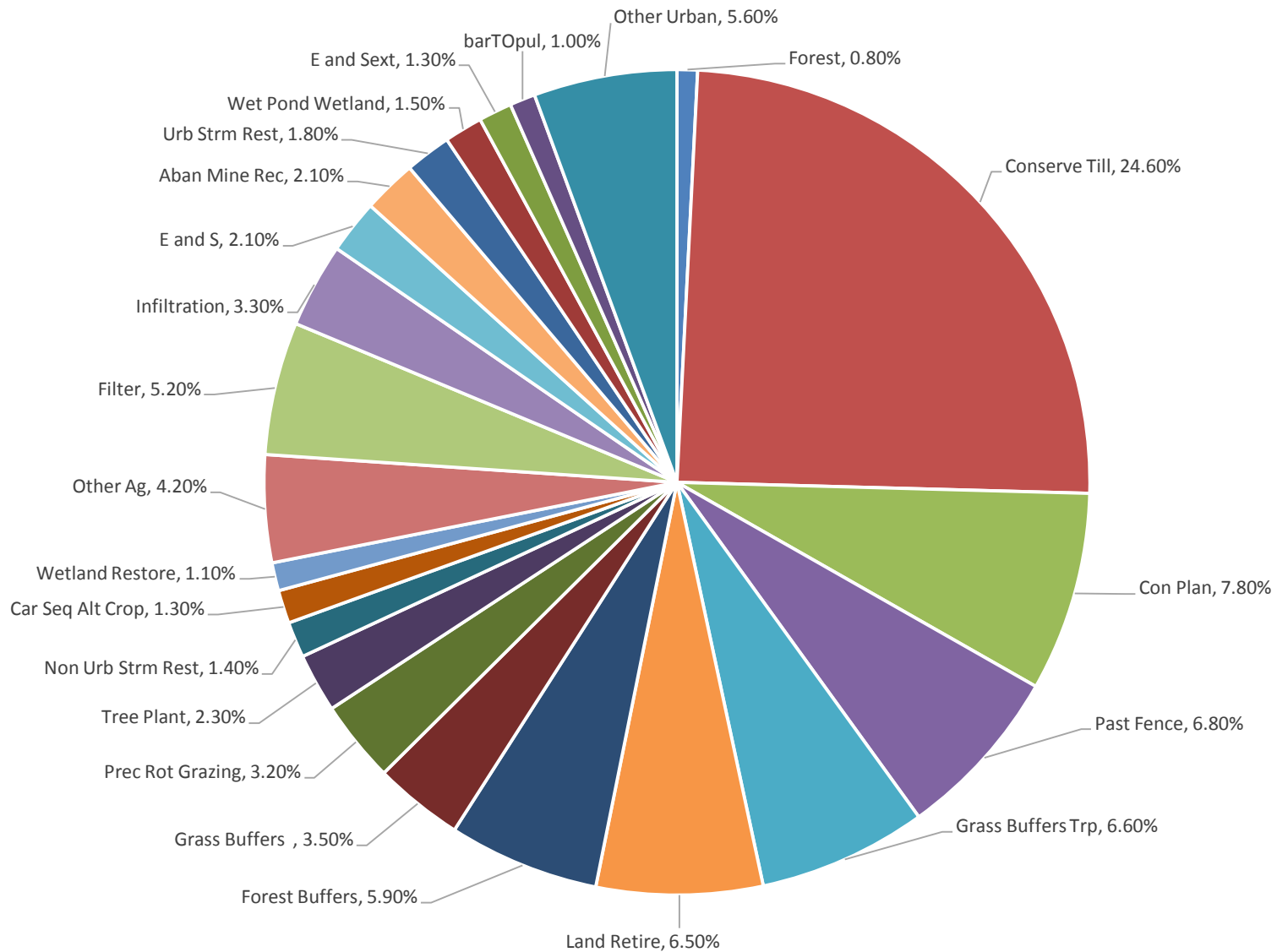
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Phosphorus Relative Load Reductions



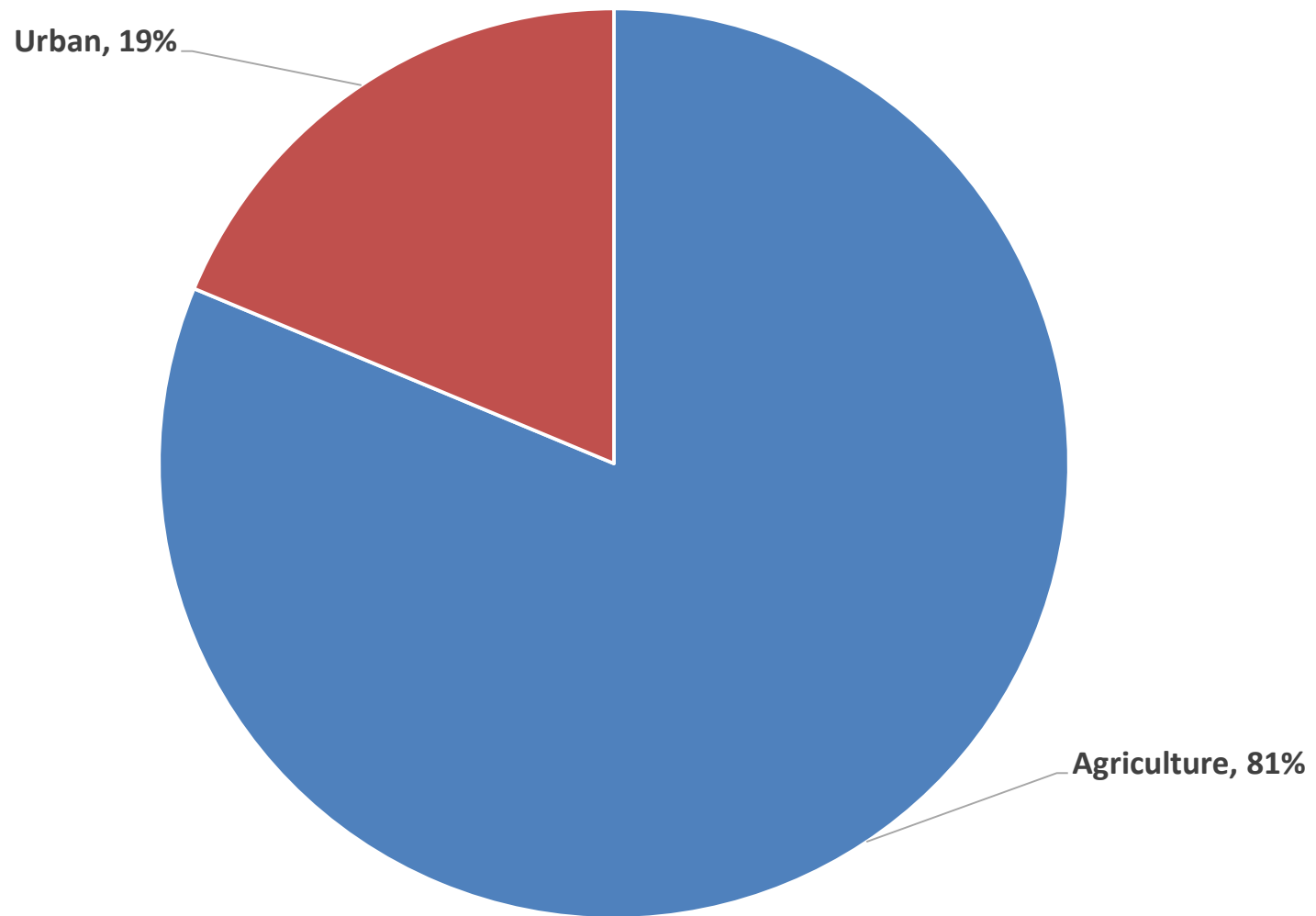
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**Phosphorus Reductions
Needed by Source**



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Sediment Relative Load Reductions



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**Sediment Reductions
Needed by Source**

Practice	Nitrogen Percent	Phosphorus Percent	Sediment Percent
Conservation Tillage	7.1	4.2	24.6
Grass Buffers (cropland)	6.0	7.7	10.1
Forested Buffers	10.4	3.9	5.9
Land Retirement	12.2	2.1	6.5
Phytase	--	13.9	--
Animal Waste Management Systems	6.8	15.5	--
Cover crops	7.0	--	--
Pasture Fencing *	1.3	4.5	6.8
Grass Buffers (pasture) *	1.0	4.4	6.0



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**Pollution Reduction
 by BMP**

	% of 2025 Target Achieved between 2009 and 2013		
BMP	Maryland	Pennsylvania	Virginia
Grass buffers	74%	3%	-3%*
Forested buffers	55%	11%	3%
Land Retirement	16%	12%	26%
Conservation tillage	88%	73%	80%
Poultry Phytase	0%	0%	0%
Swine Phytase	25%	0%	0%
AWMS	25%	15%	8%
Fencing*	101%	102%	84%



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BMP Implementation by State



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The End