

An aerial photograph of a lush green landscape, likely a coastal area. A river or stream flows through the center, eventually emptying into a large body of water, possibly a bay or estuary. The land is covered in dense vegetation, with some areas appearing more brownish, possibly due to soil or water levels. The overall scene is a mix of green and brown tones, with the water appearing dark.

2017 Water Quality Outlook:

*Are we are track to
meet our 60% goal?*

**Rich Batiuk
Associate Director for Science
Chesapeake Bay Program
U.S. Environmental Protection
Agency**

November 7, 2014

The Tale of Two Cities

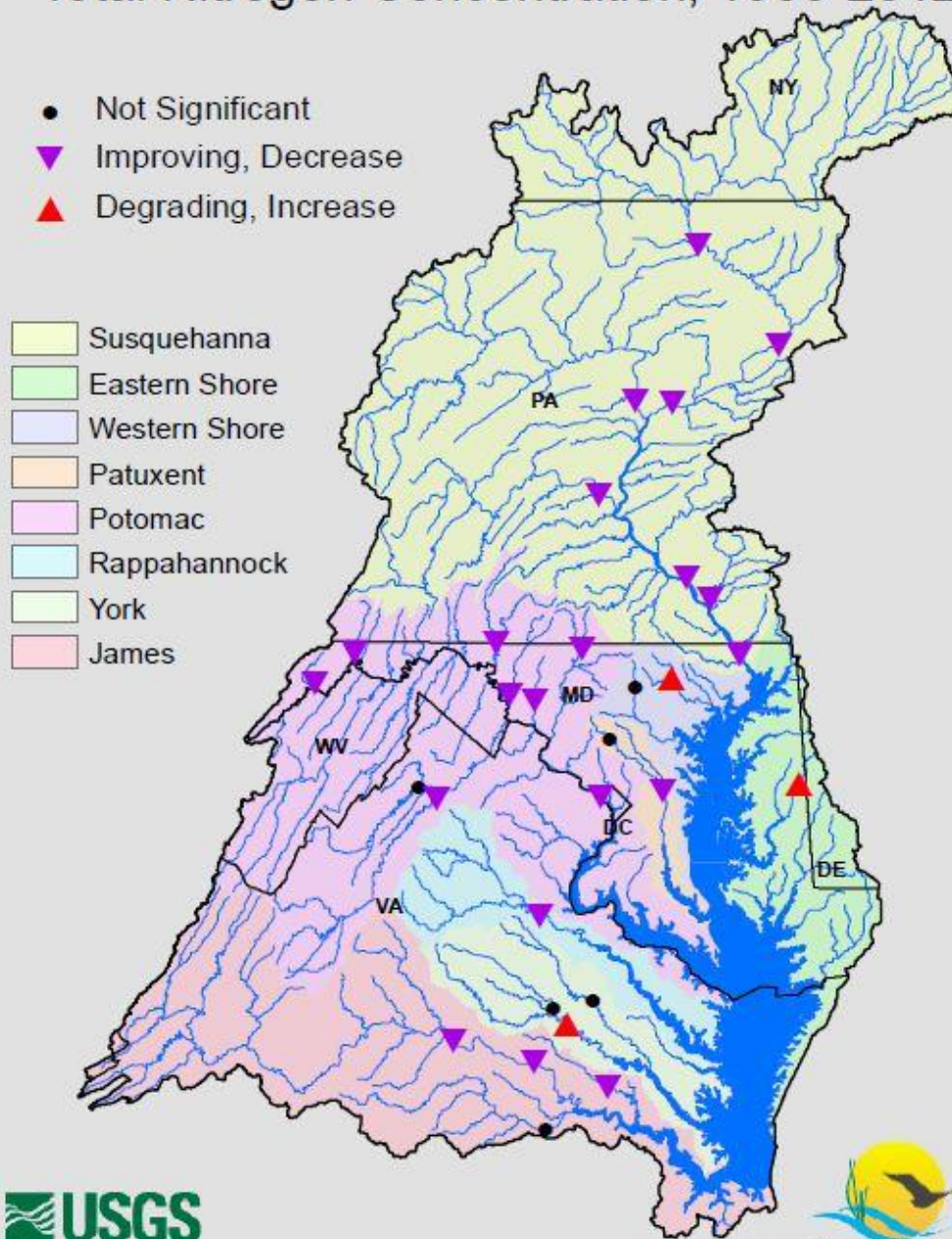
Based on the basinwide assessment of the jurisdictions' two-year milestones for 2012-2013 and commitments for 2014-2015...

- **Yes for phosphorus and sediment**
- **No for nitrogen**

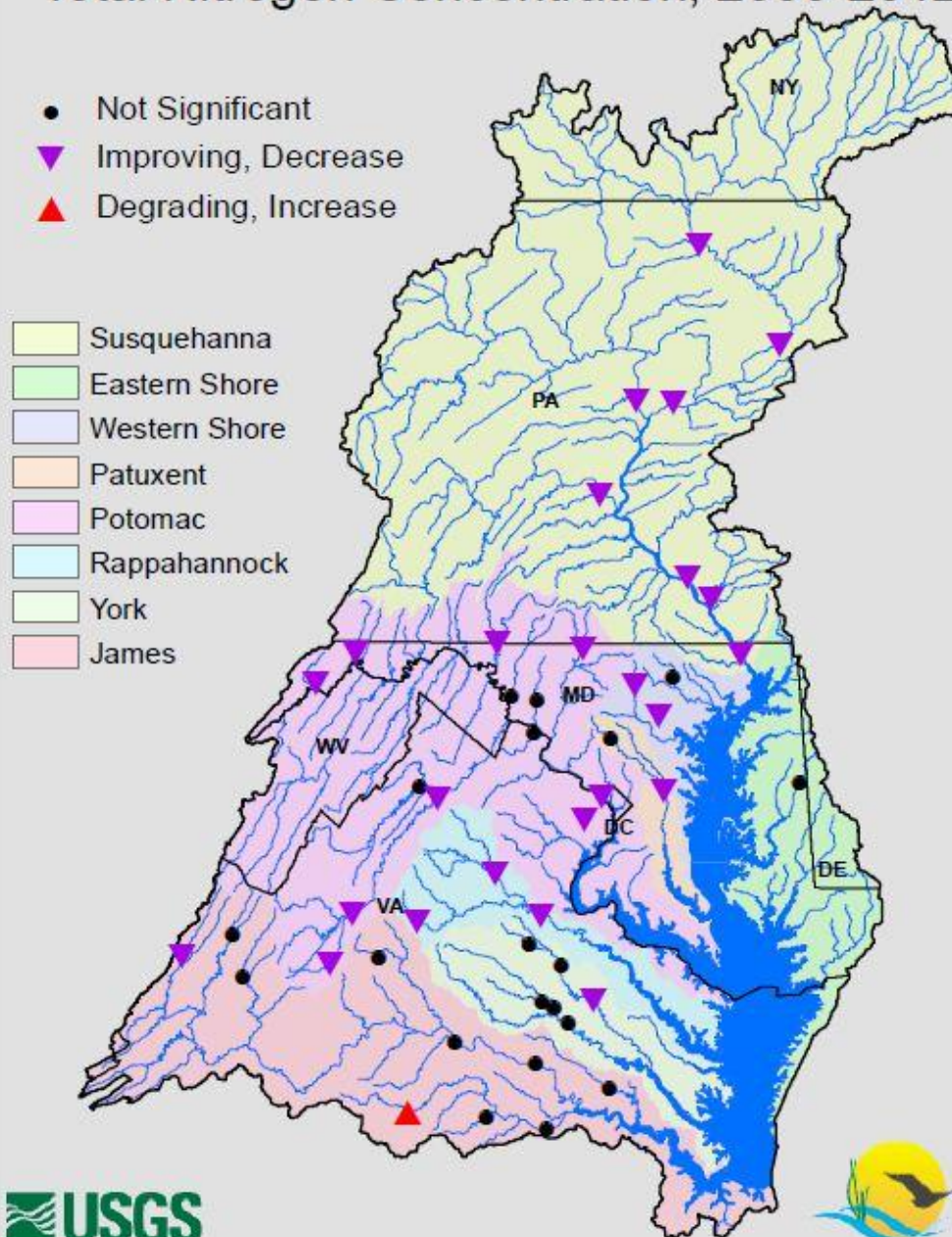
Based on evaluation of long term (since 1985) and more recent (since early 2000) of monitoring data records AND the jurisdictions current implementation capacities extended forward in time...

- **No for phosphorus and sediment**
- **Not likely for nitrogen**

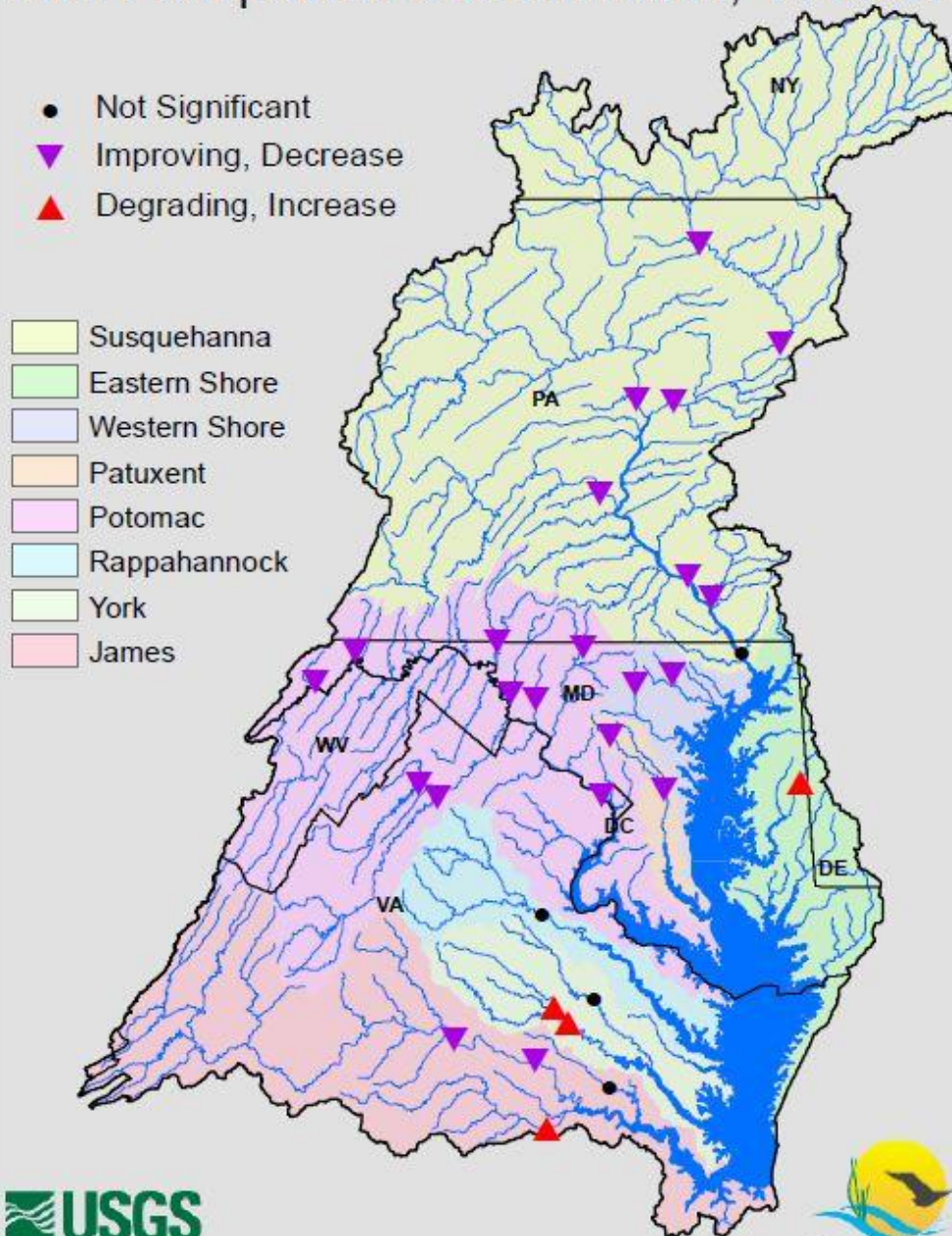
Long-Term Trend in Flow-Adjusted Total Nitrogen Concentration, 1985-2012



Short-Term Trend in Flow-Adjusted Total Nitrogen Concentration, 2003-2012



Long-Term Trend in Flow-Adjusted Total Phosphorus Concentration, 1985-2012



Short-Term Trend in Flow-Adjusted Total Phosphorus Concentration, 2003-2012

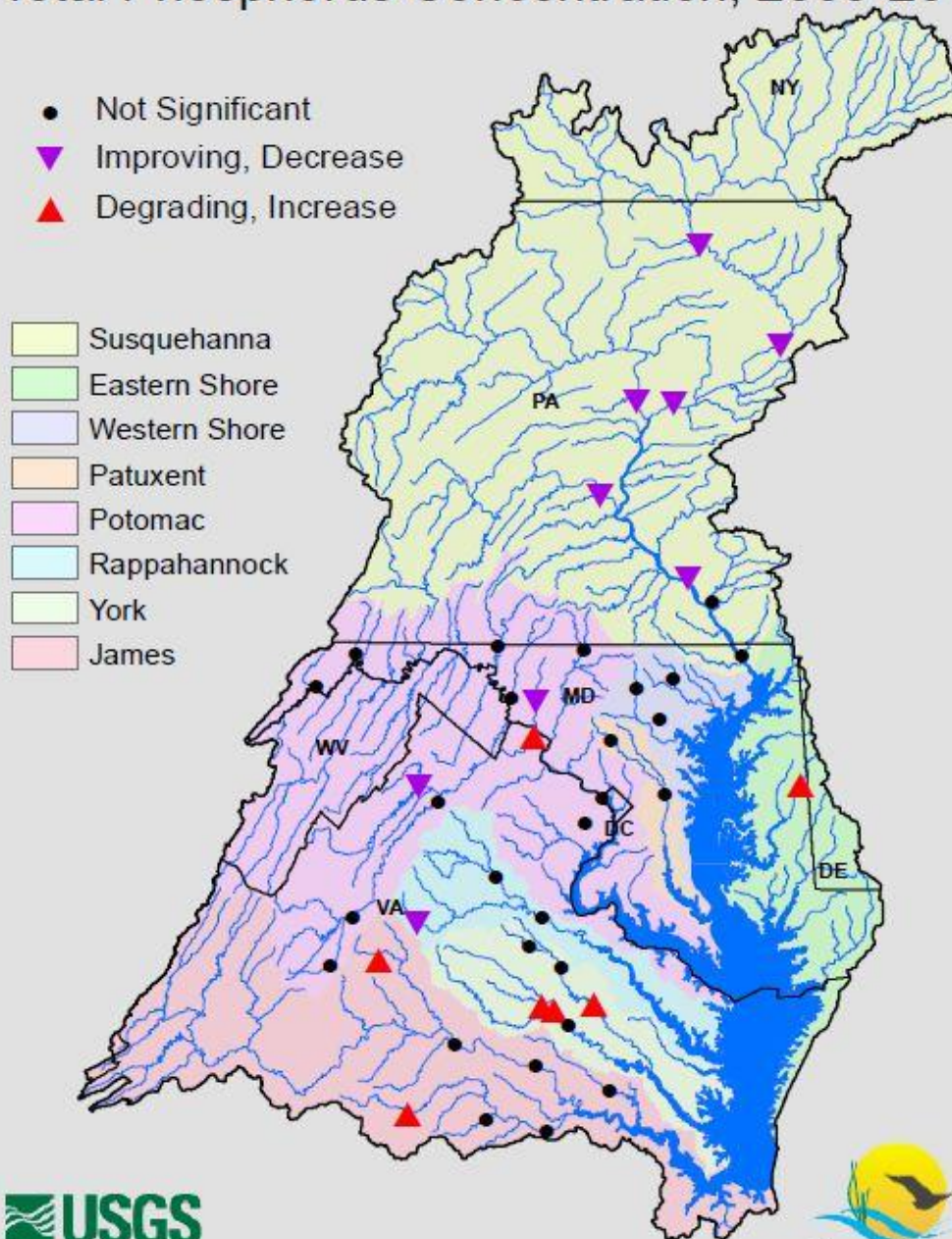
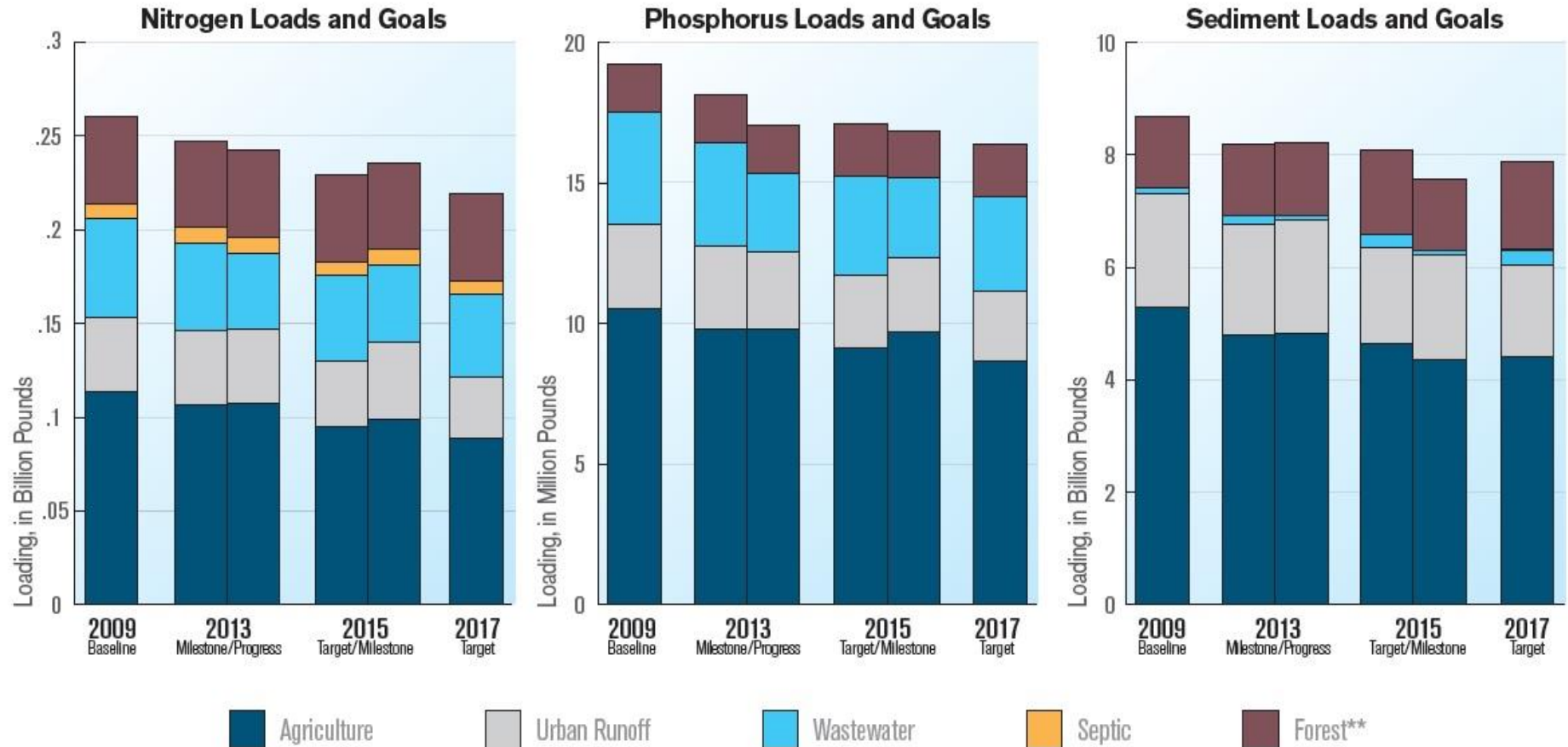


Table 2. Changes in yields of orthophosphorus and total phosphorus at the nine U.S. Geological Survey River Input Monitoring (RIM) stations during two time periods, long-term (1985–2010) and short-term (2001–10).

RIM STATION	LONG-TERM TREND IN YIELD (1985–2010)		SHORT-TERM TREND IN YIELD (2001–10)	
	ORTHOPHOSPHORUS	TOTAL PHOSPHORUS	ORTHOPHOSPHORUS	TOTAL PHOSPHORUS
SUSQUEHANNA	IMPROVING	MINIMAL CHANGE	MINIMAL CHANGE	DEGRADING
POTOMAC	IMPROVING	IMPROVING	IMPROVING	MINIMAL CHANGE
JAMES	IMPROVING	MINIMAL CHANGE	IMPROVING	DEGRADING
RAPPAHANNOCK	IMPROVING	DEGRADING	MINIMAL CHANGE	DEGRADING
APPOMATTOX	IMPROVING	DEGRADING	IMPROVING	DEGRADING
PAMUNKEY	IMPROVING	DEGRADING	IMPROVING	DEGRADING
MATTAPONI	IMPROVING	MINIMAL CHANGE	IMPROVING	MINIMAL CHANGE
PATUXENT	IMPROVING	IMPROVING	IMPROVING	MINIMAL CHANGE
CHOPTANK	DEGRADING	DEGRADING	DEGRADING	DEGRADING

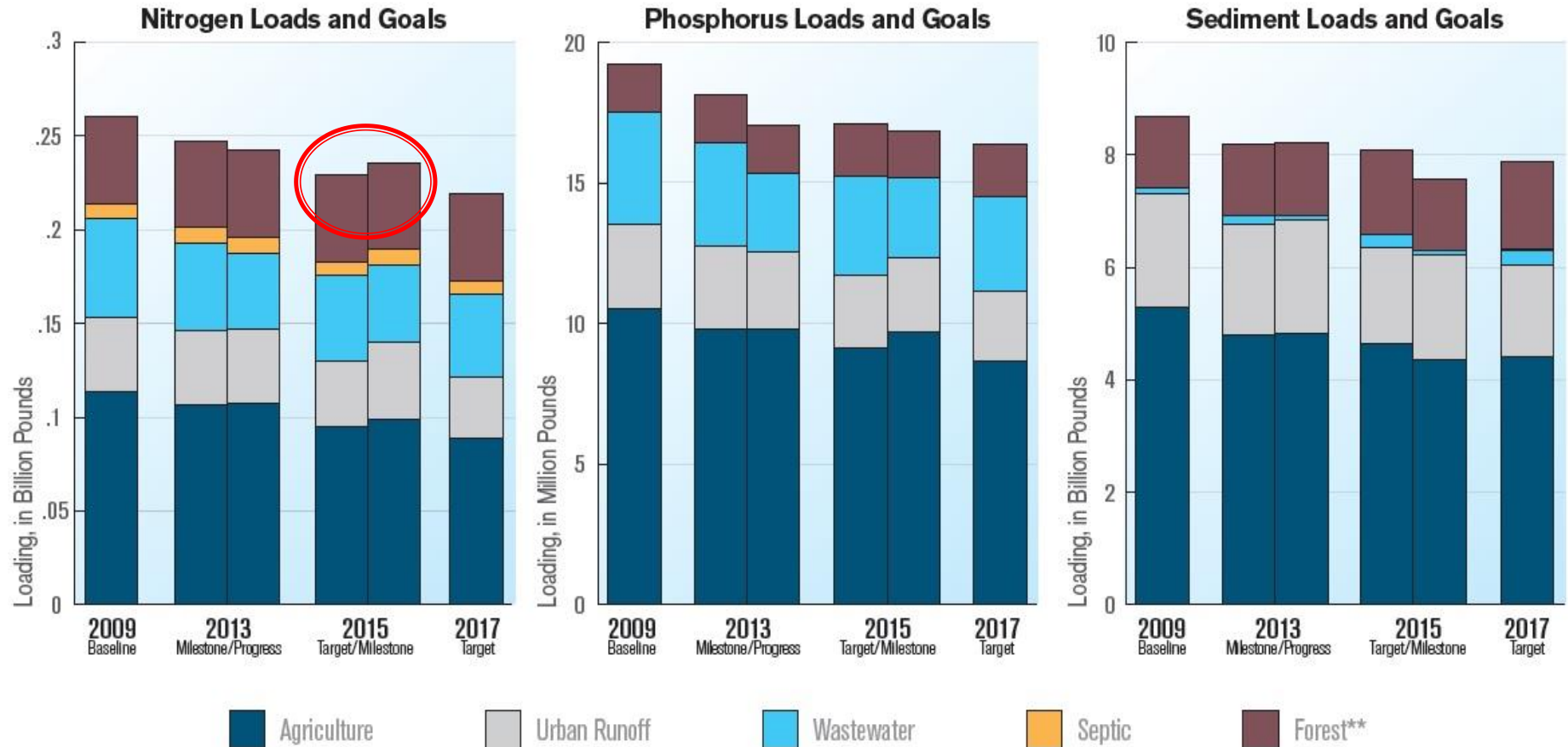
Basinwide Progress and Projections



** Forest includes other sources

Note: 2013 milestones and 2013 progress are based on 2010 conditions. For additional information on pollution reduction progress, commitments, and BMP see <http://stat.chesapeakebay.net/milestones>

Basinwide Progress and Projections



** Forest includes other sources

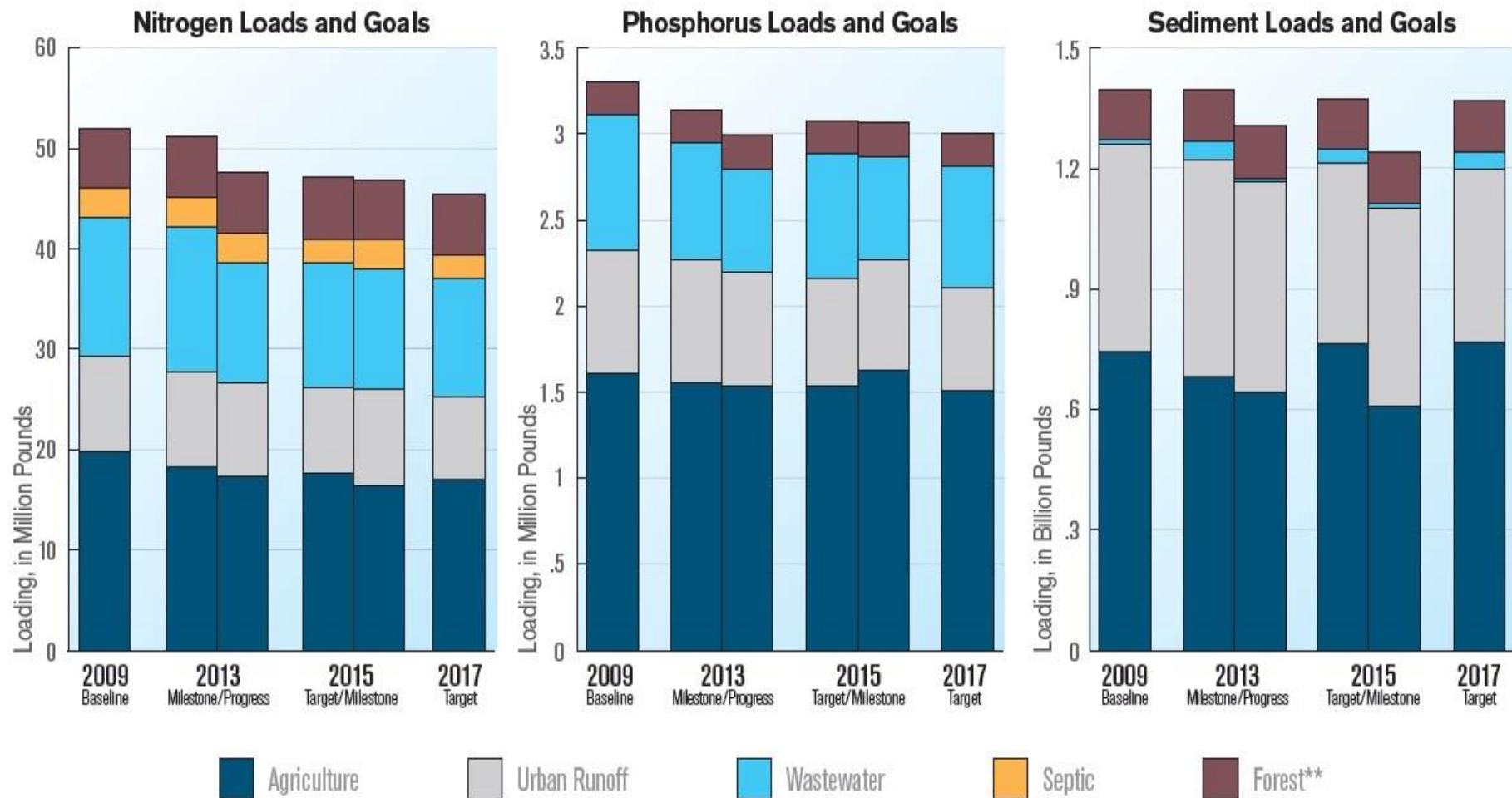
Note: 2013 milestones and 2013 progress are based on 2010 conditions. For additional information on pollution reduction progress, commitments, and BMP see <http://stat.chesapeakebay.net/milestones>

Basinwide Projections for Meeting the 2017 60% Interim Target

Nitrogen	2013 Milestone Achieved?	2013 on Trajectory for 2017?	2015 on Trajectory for 2017?	On target for meeting 2017 interim target?
Agriculture				No
Urban Runoff				No
Wastewater				Yes
Septic Systems				No
All Sources				No

Phosphorus	2013 Milestone Achieved?	2013 on Trajectory for 2017?	2015 on Trajectory for 2017?	On target for meeting 2017 interim target?
Agriculture				No
Urban Runoff				No
Wastewater				Yes
All Sources				Yes

Maryland Progress and Goals



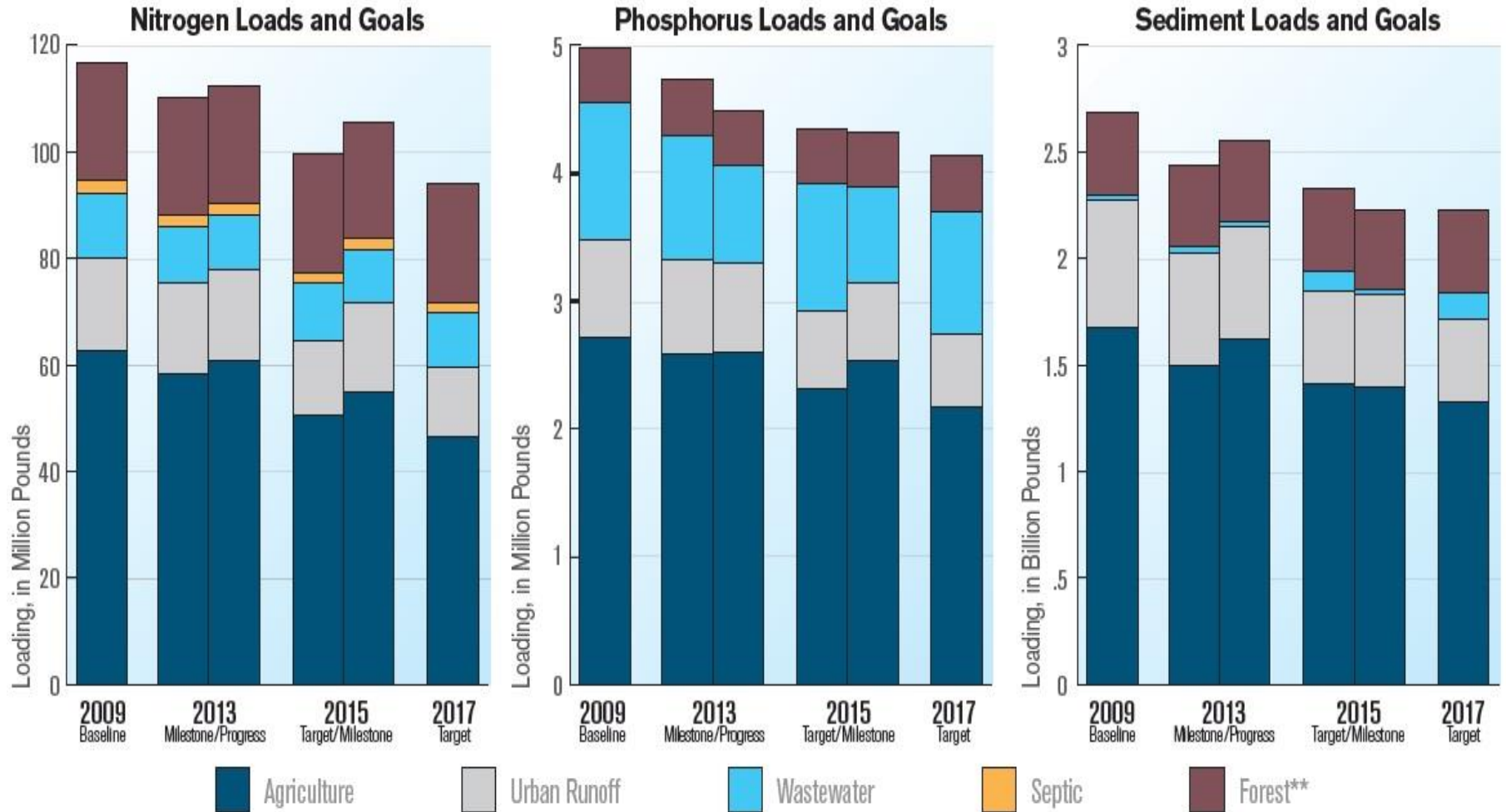
** Forest includes other sources

Maryland Projections for Meeting the 2017 60% Interim Target

Nitrogen	2013 Milestone Achieved?	2013 on Trajectory for 2017?	2015 on Trajectory for 2017?	On target for meeting 2017 interim target?
Agriculture				Yes
Urban Runoff				No
Wastewater				Yes
Septic Systems				No
All Sources				Yes

Phosphorus	2013 Milestone Achieved?	2013 on Trajectory for 2017?	2015 on Trajectory for 2017?	On target for meeting 2017 interim target?
Agriculture				No
Urban Runoff				No
Wastewater				Yes
All Sources				Yes

Pennsylvania Progress and Goals



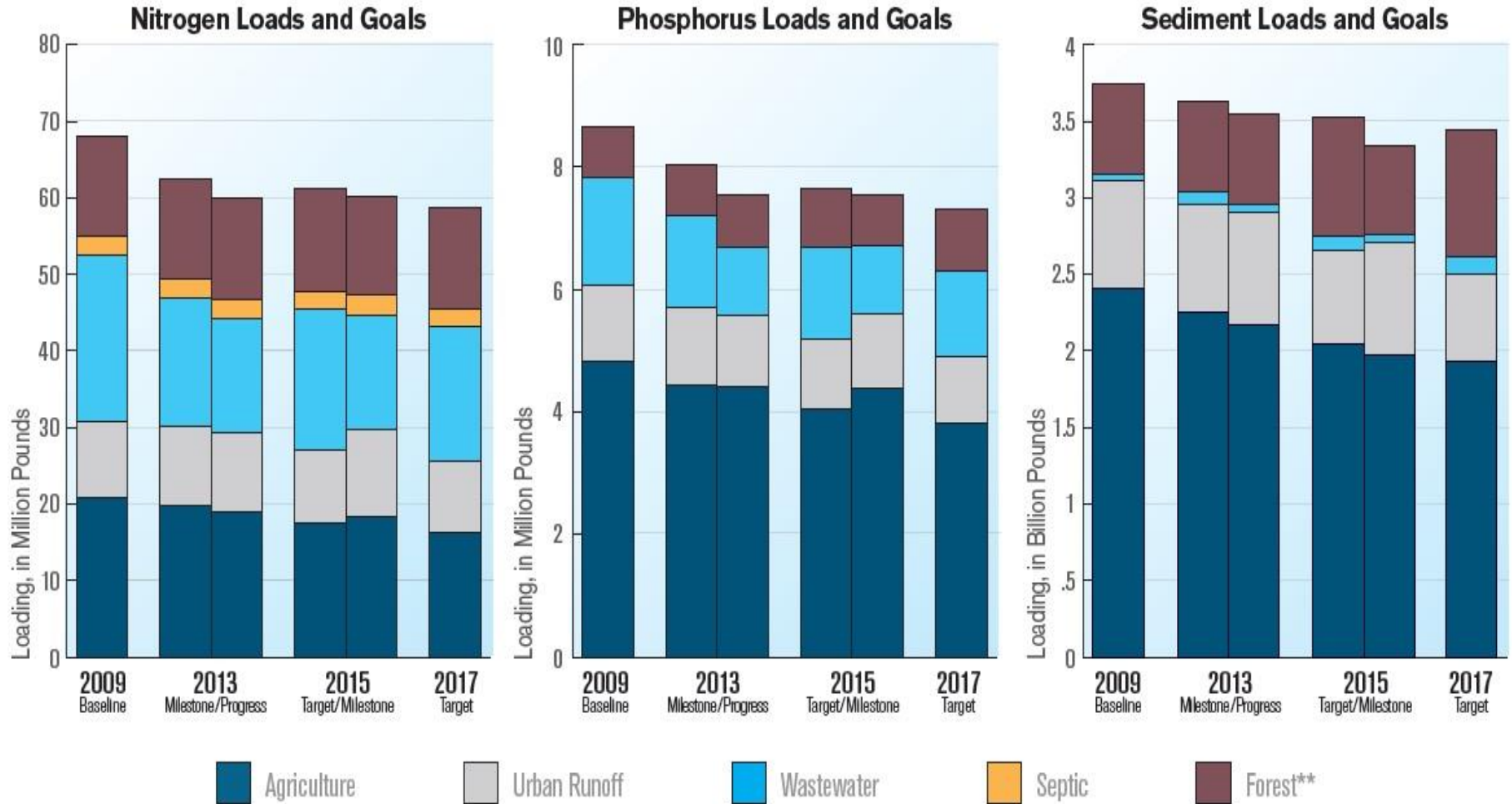
** Forest includes other sources

Pennsylvania Projections for Meeting the 2017 60% Interim Target

Nitrogen	2013 Milestone Achieved?	2013 on Trajectory for 2017?	2015 on Trajectory for 2017?	On target for meeting 2017 interim target?
Agriculture				No
Urban Runoff				No
Wastewater				Yes
Septic Systems				No
All Sources				No

Phosphorus	2013 Milestone Achieved?	2013 on Trajectory for 2017?	2015 on Trajectory for 2017?	On target for meeting 2017 interim target?
Agriculture				No
Urban Runoff				No
Wastewater				Yes
All Sources				No

Virginia Progress and Goals



** Forest includes other sources

Virginia Projections for Meeting the 2017 60% Interim Target

Nitrogen	2013 Milestone Achieved?	2013 on Trajectory for 2017?	2015 on Trajectory for 2017?	On target for meeting 2017 interim target?
Agriculture				No
Urban Runoff				No
Wastewater				Yes
Septic Systems				No
All Sources				Yes

Phosphorus	2013 Milestone Achieved?	2013 on Trajectory for 2017?	2015 on Trajectory for 2017?	On target for meeting 2017 interim target?
Agriculture				No
Urban Runoff				No
Wastewater				Yes
All Sources				Yes

2014 EPA Oversight Status

	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

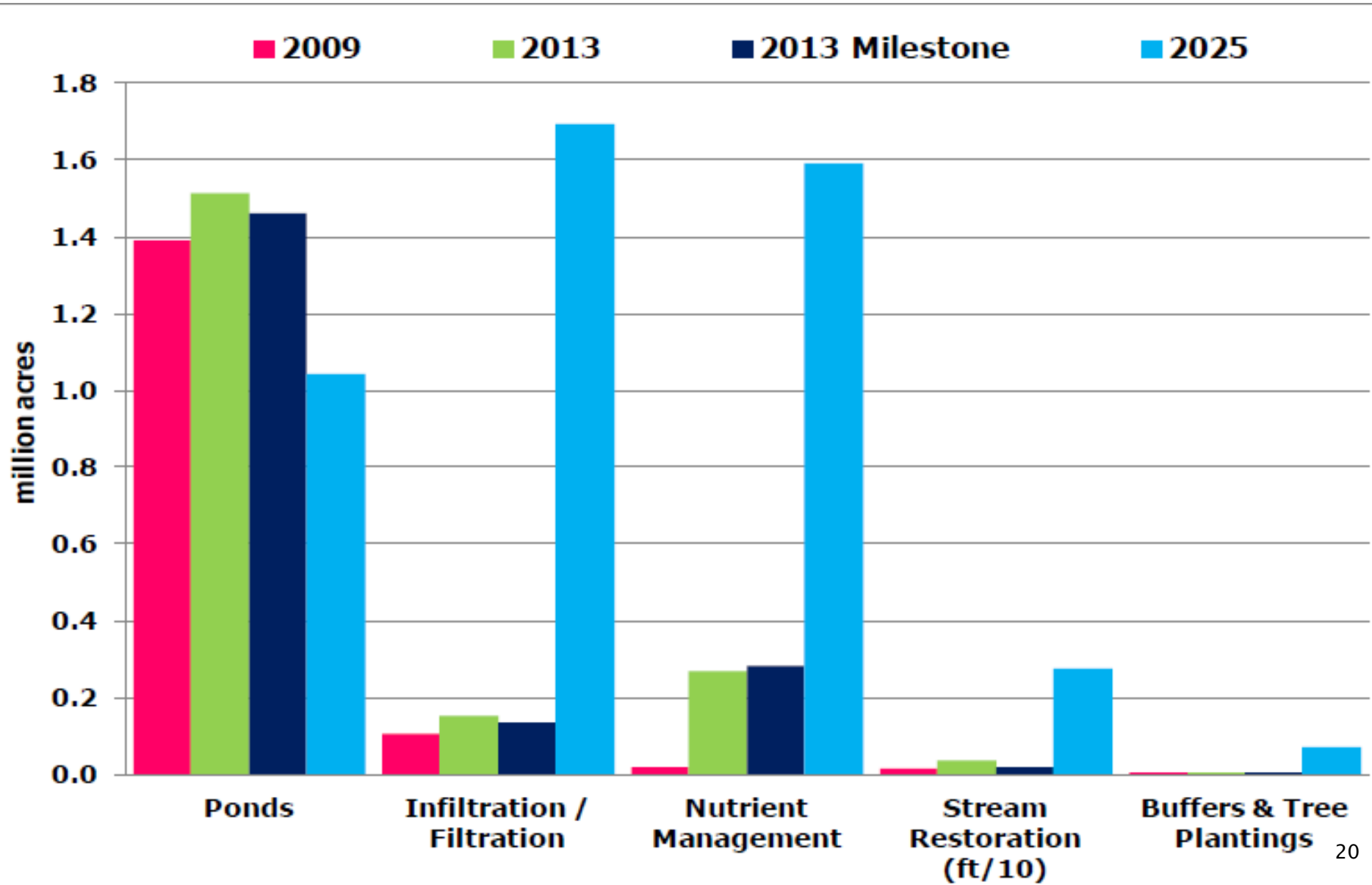
Agriculture

- Implementation rates are lagging
- Need better targeting, leveraging of resources
- Further expand technical assistance network of trusted experts promoting WIP goals/practices
- Consider long-term sustainability; avoid over-reliance on annual funding/annual practices
- Still need to determine what hasn't been implemented vs. what hasn't been tracked

Urban/Suburban Development

- Loads continue to grow in many jurisdictions
- Permit backlogs persist
- Compliance assurance is lacking
- Local regulated communities need training and guidance from the states
- Need strategies to finance local stormwater management programs

Urban/Suburban BMP Implementation

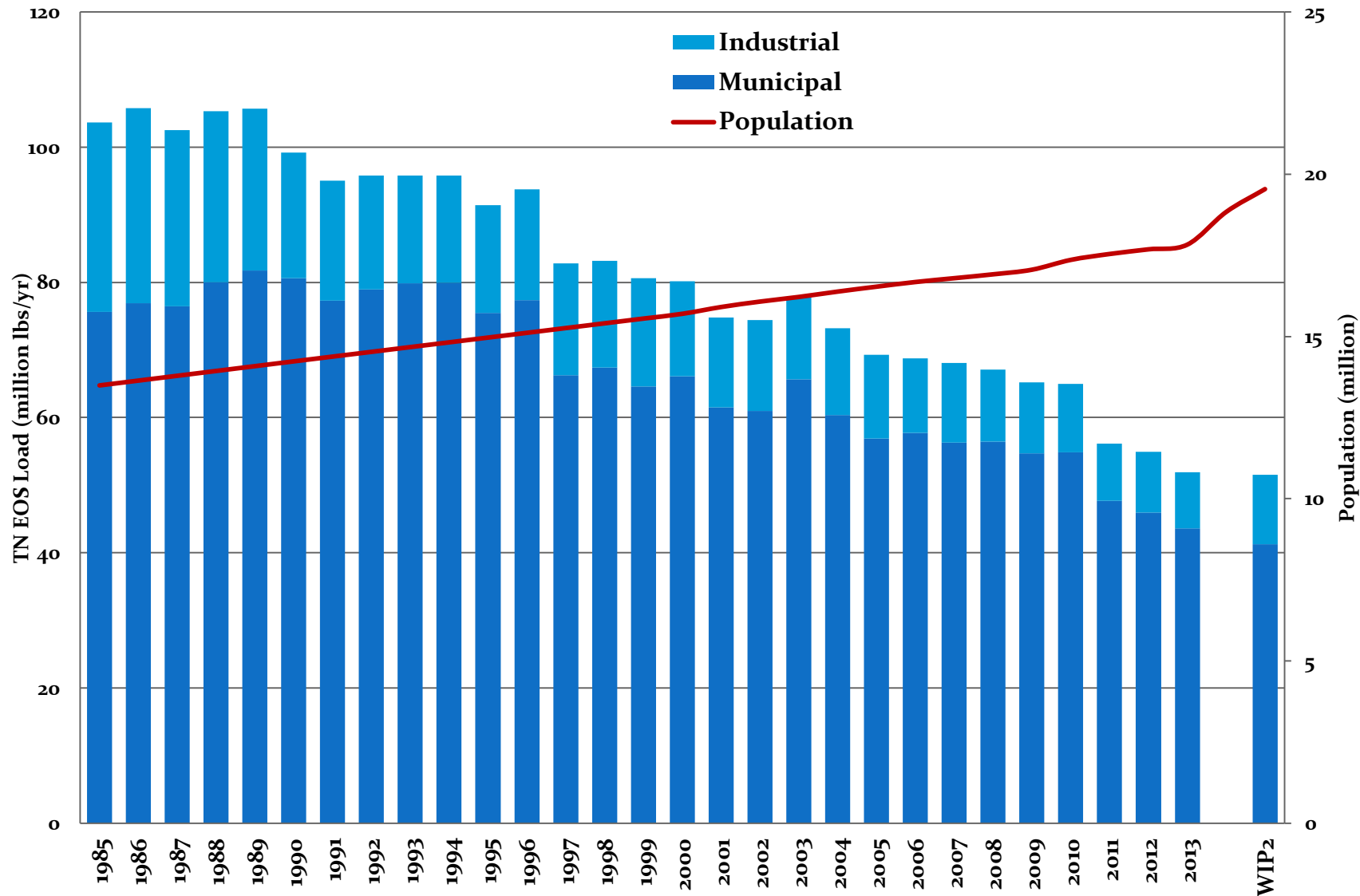


Wastewater

- Wastewater reductions well ahead of schedule
- Several states depending on this sector for helping achieve their 2017 60% interim target
- Septic loads continue to increase
- Need to issue remaining permits with Bay TMDL limits
- Need to track compliance schedules and put more focus on non-significant facilities

Wastewater TN Load Reduction Progress

TN EOS Load (mil lbs/yr) vs Population Trend in the Chesapeake Bay Watershed



- We are seeing evidence that our investments in practices and upgrades **ARE** working—at local scales and regional scales
- We are also seeing evidence our starting to lose the cleaner waters progress we made in earlier decades
- We are not on track to achieve our nitrogen interim target by 2017; based on monitoring, we are likely not on track to achieve phosphorus
- We have some significant challenges in front of us to achieve our goals by 2025



Questions





Rich Batiuk

**Associate Director for Science, Analysis
and Implementation**

**U.S. Environmental Protection Agency
Chesapeake Bay Program Office**

410-267-5731

batiuk.richard@epa.gov

www.chesapeakebay.net