



pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Office of Water Programs



Pennsylvania's Phase III Watershed Implementation Plan: What are the Expectations?

Chesapeake Bay Program Conservation District and Agency Staff
Meeting

March 13, 2017



Chesapeake Bay Program
Science. Restoration. Partnership.

THANK YOU!

Success: Seeing Real Bay and Watershed Responses



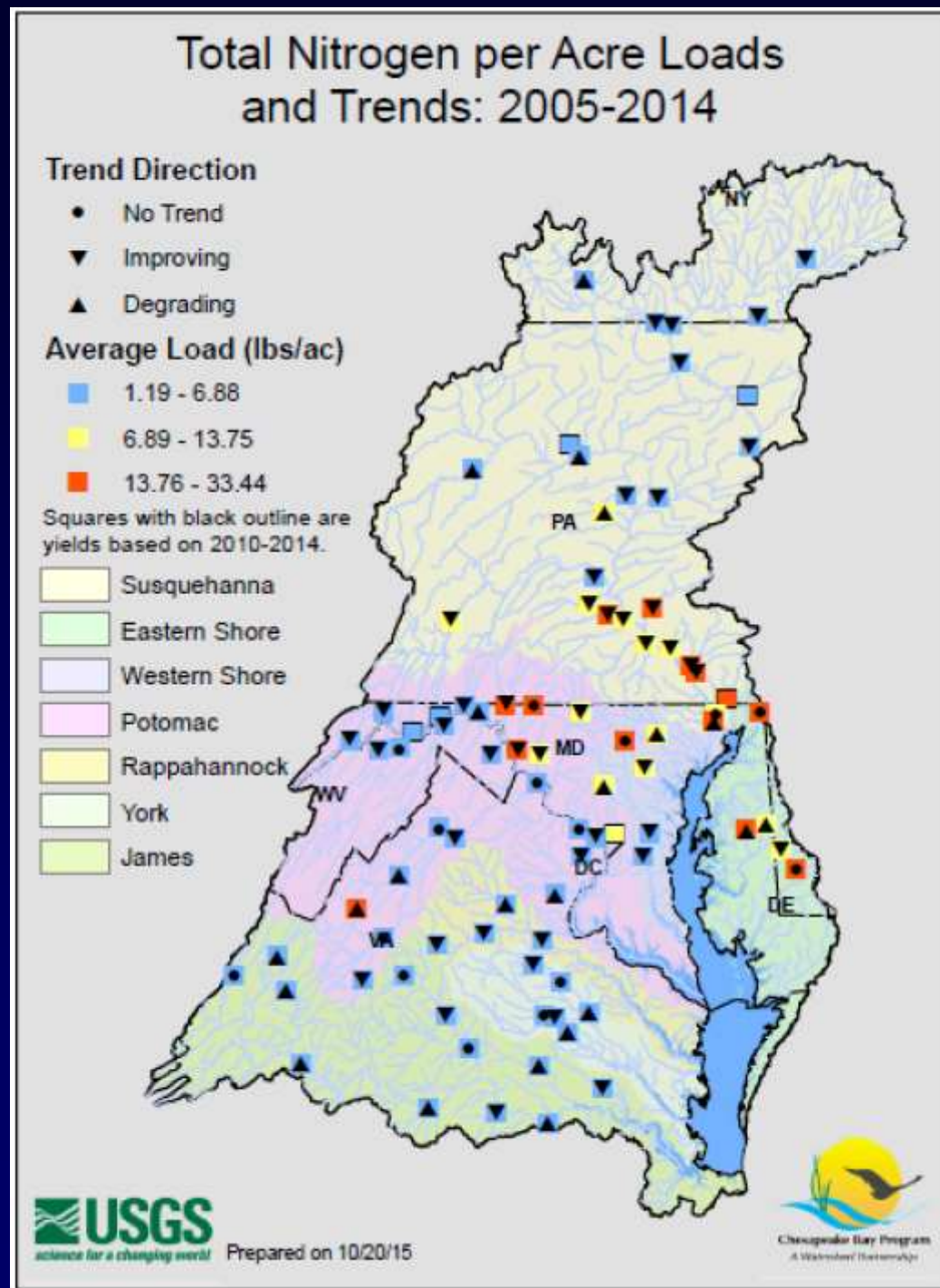
Total Nitrogen per Acre Loads and Trends: 2005-2014

Chesapeake Watershed

- Improving Trends: 54%
- Degrading Trends: 27%
- No Trend: 19%

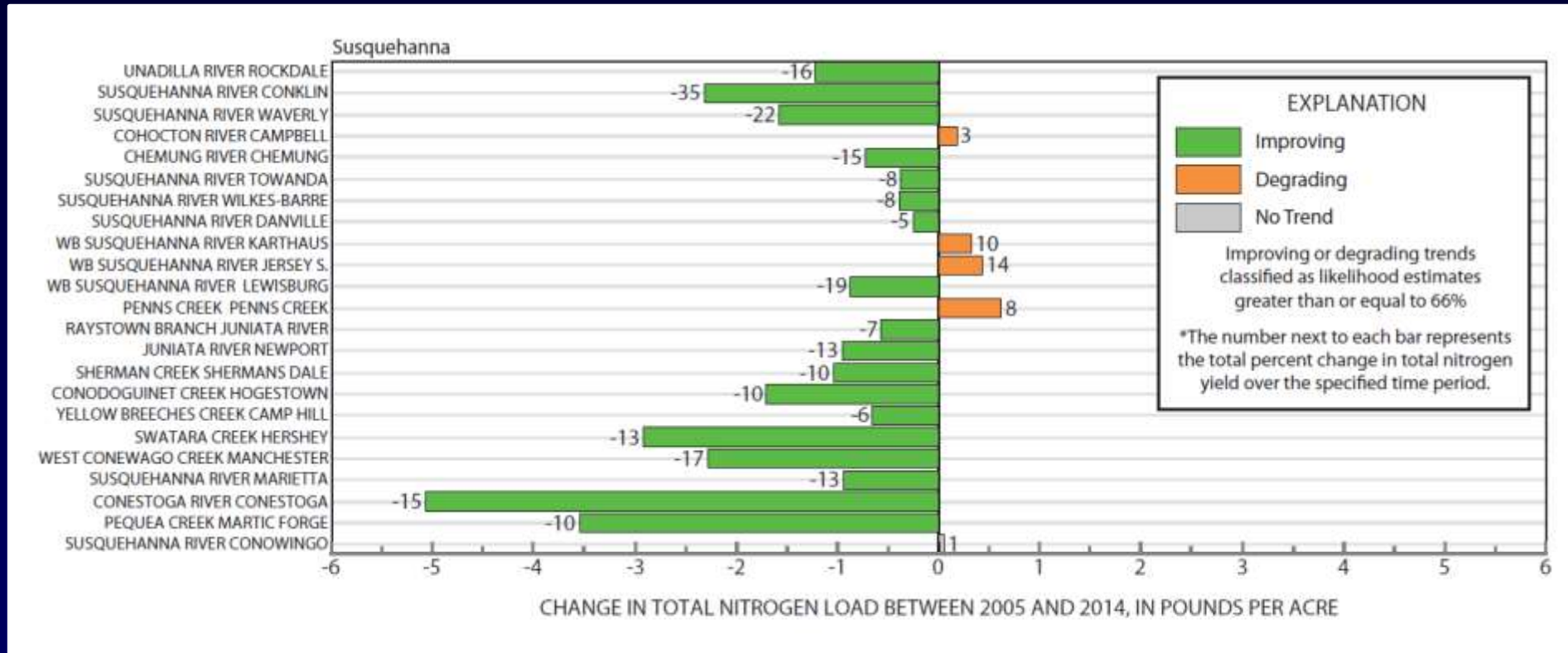
PA: Majority improving

- Improving: 14
- Degrading: 3
- No change: 1



Changes in Nitrogen per Acre Loads: 2005-2014

Susquehanna Watershed



Total Phosphorus per Acre Loads and Trends: 2005-2014

Loads per acre

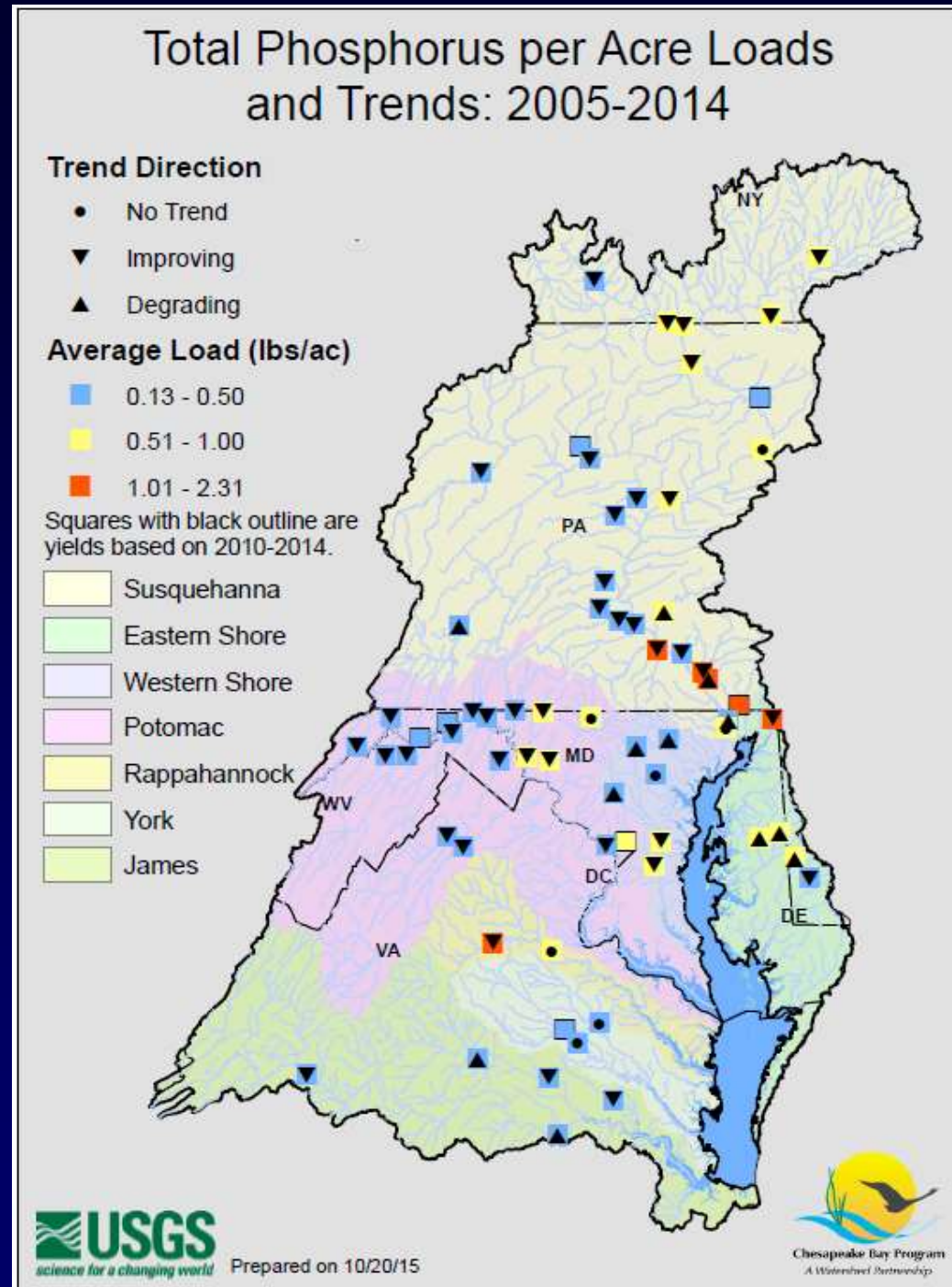
- Above average in PA
- Eastern part of basin

Bay Watershed trends:

- Improving Trends : 68%
- Degrading Trends : 20%
- No Trend : 12%

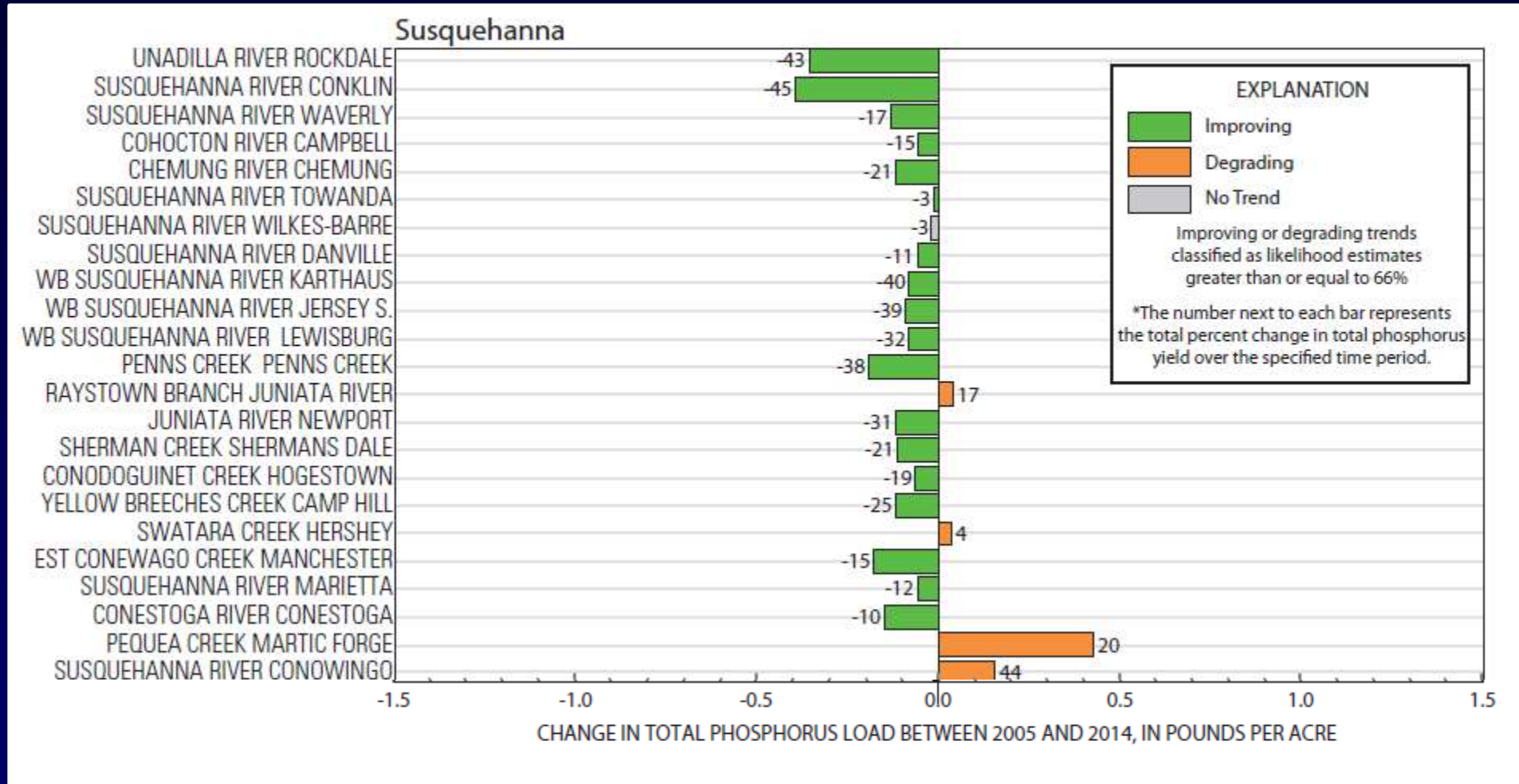
PA trends: Majority improving

- Improving: 14
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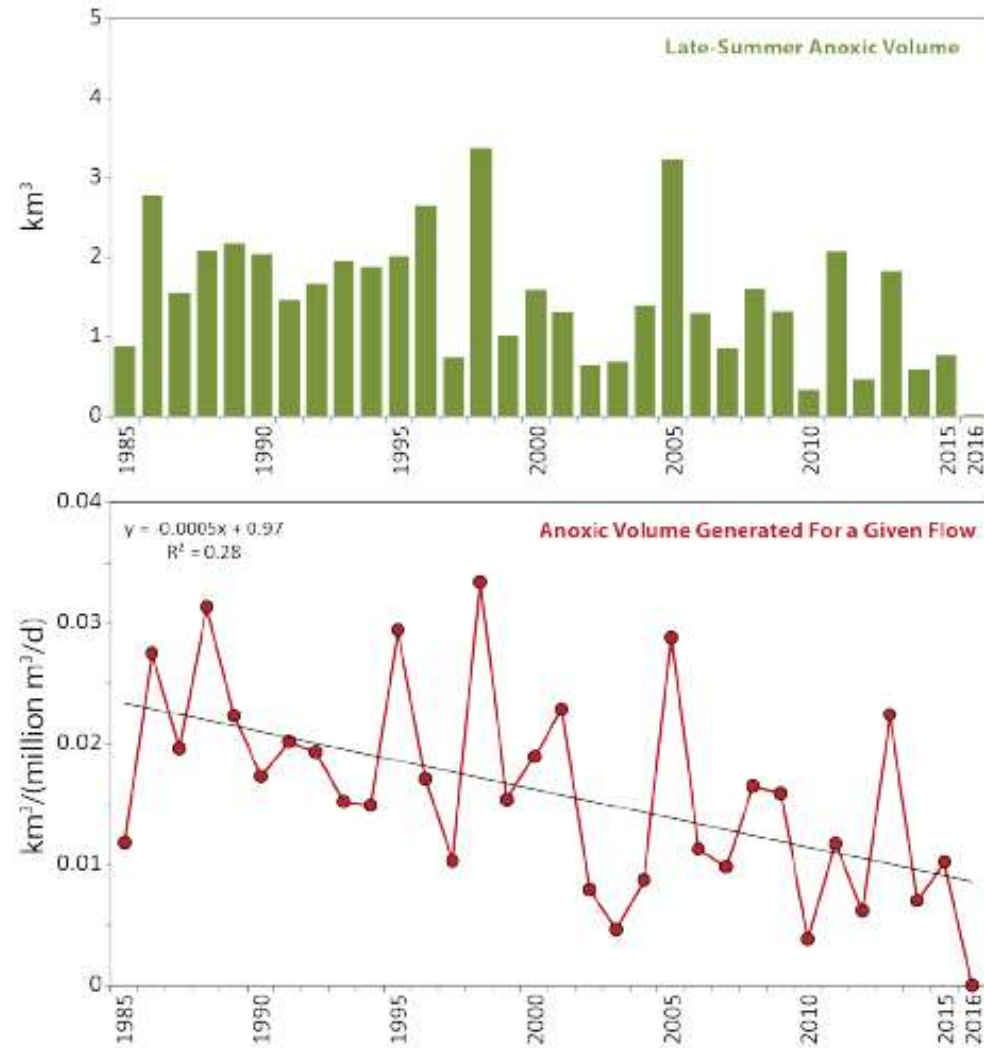


Changes in Phosphorus per Acre Loads: 2005-2014

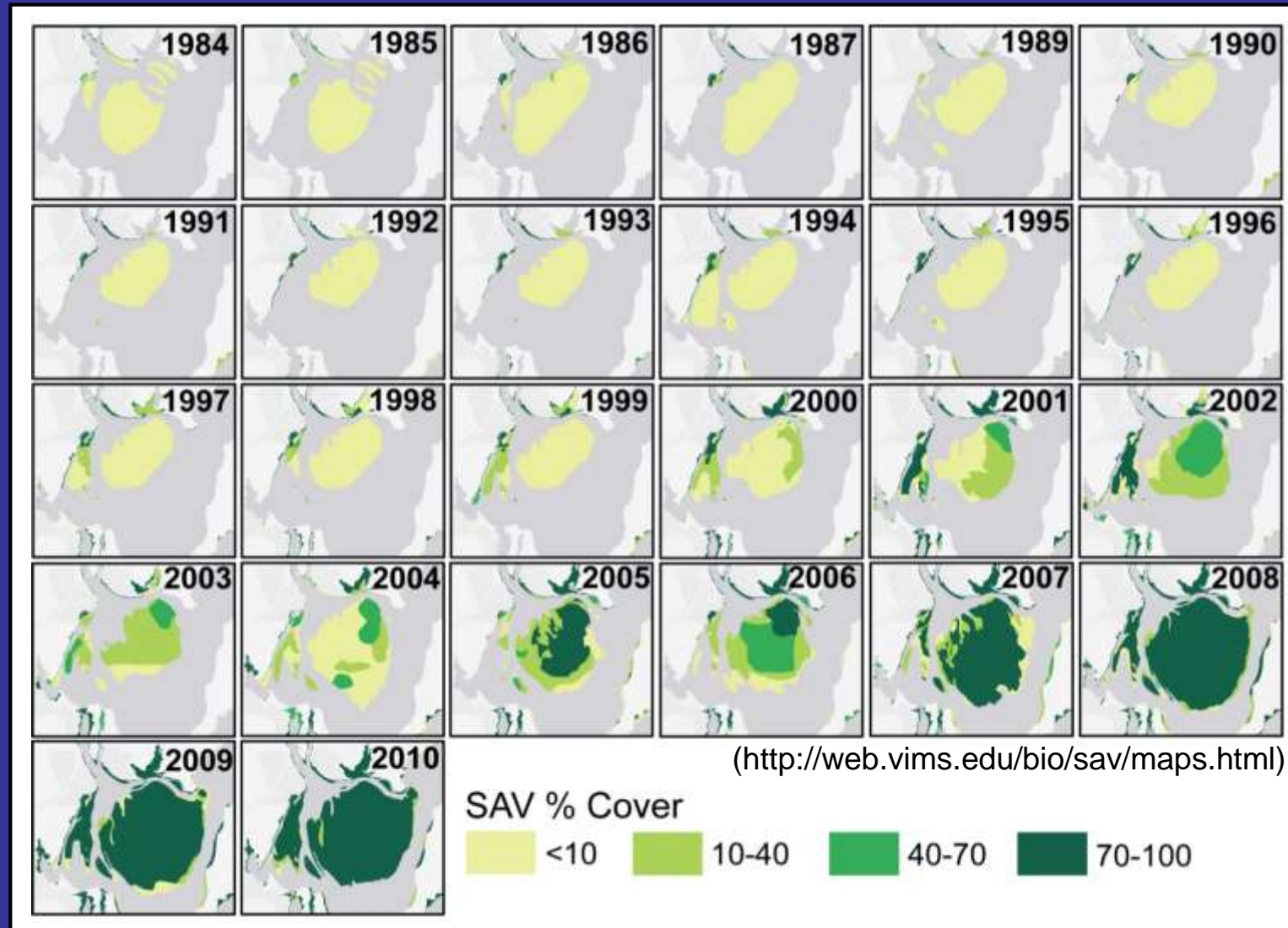
Susquehanna Watershed



The Bay 's Summertime Dead Zone is Decreasing in Size!



Maps of SAV Cover and Density: Susquehanna Flats (1984 – 2010)





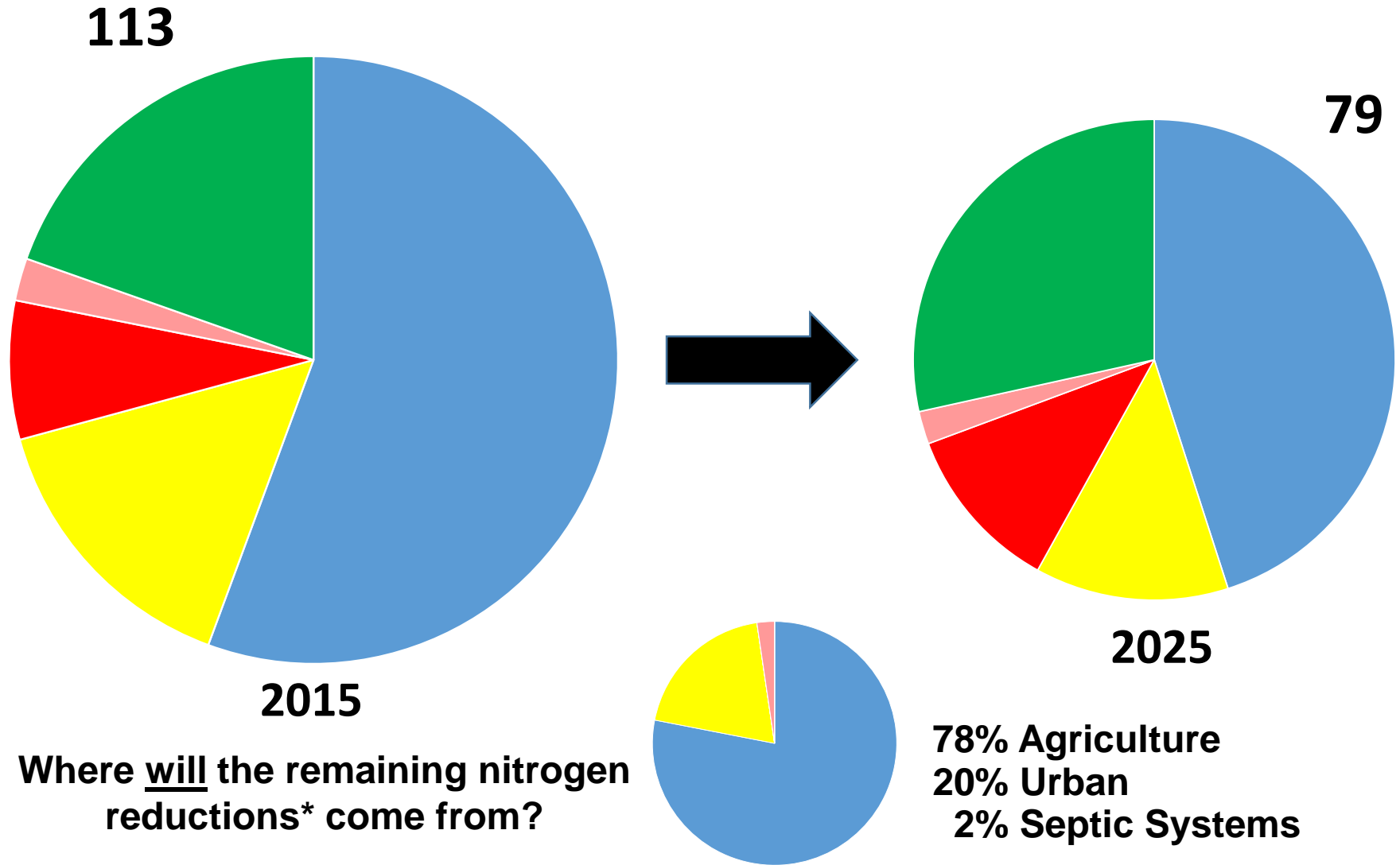
Now...this is a SAV bed!

- 13,000 acres
- Clear water
- Resilient to major storms



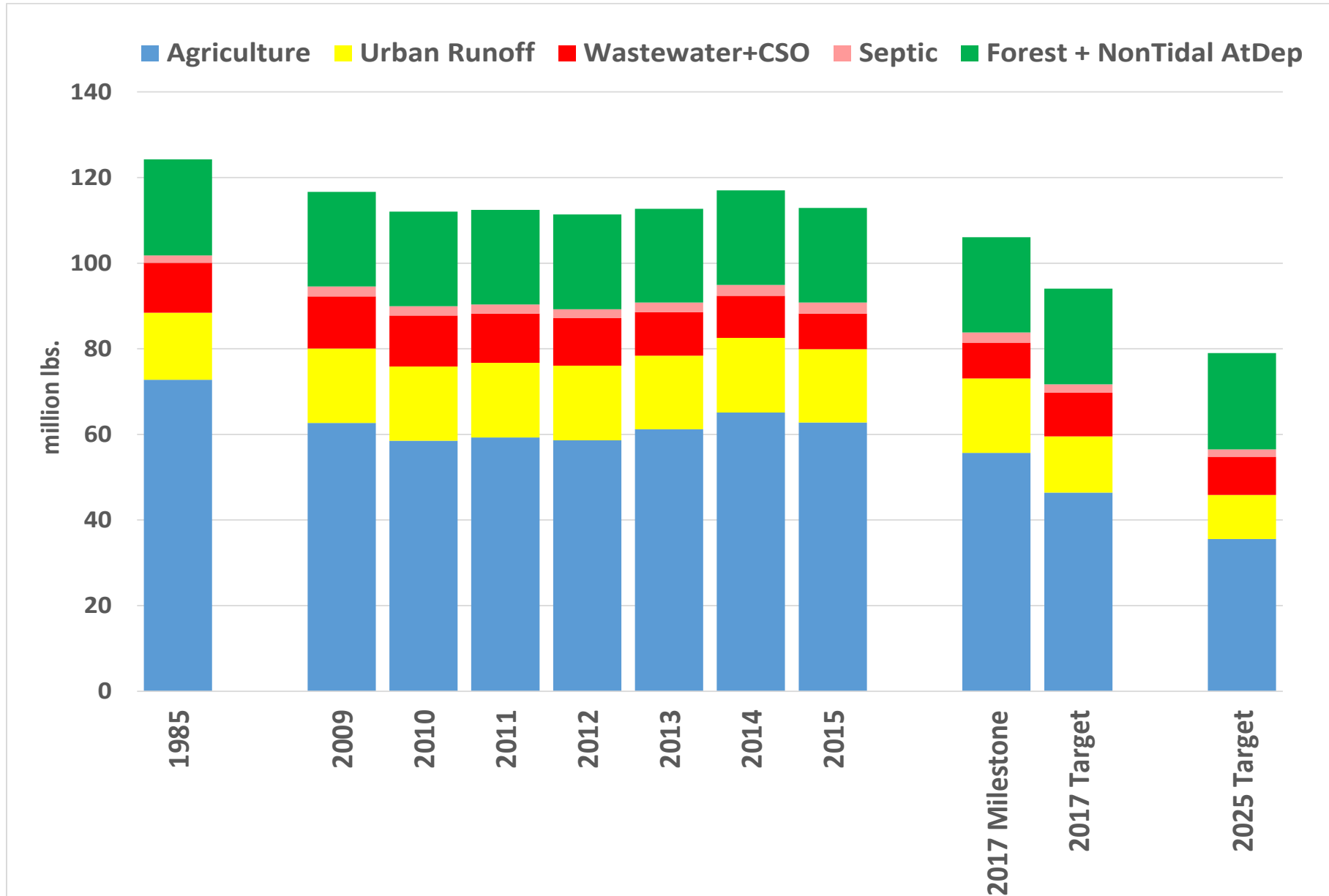
Pennsylvania Nitrogen Loads: 2015-2025

■ Agriculture ■ Urban Runoff ■ Wastewater+CSO ■ Septic ■ Forest+

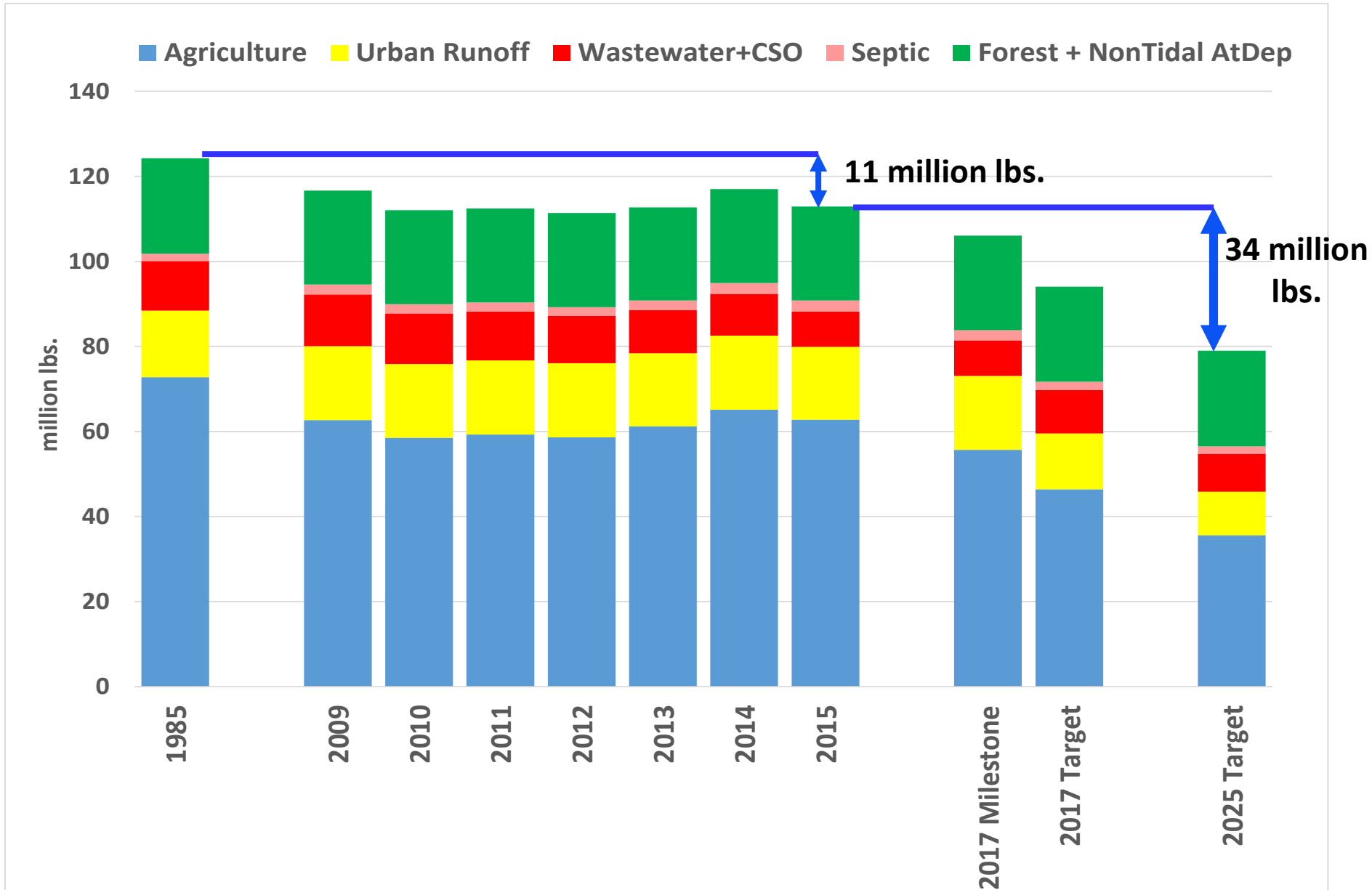


*Based on the jurisdictions' Phase II WIPs.

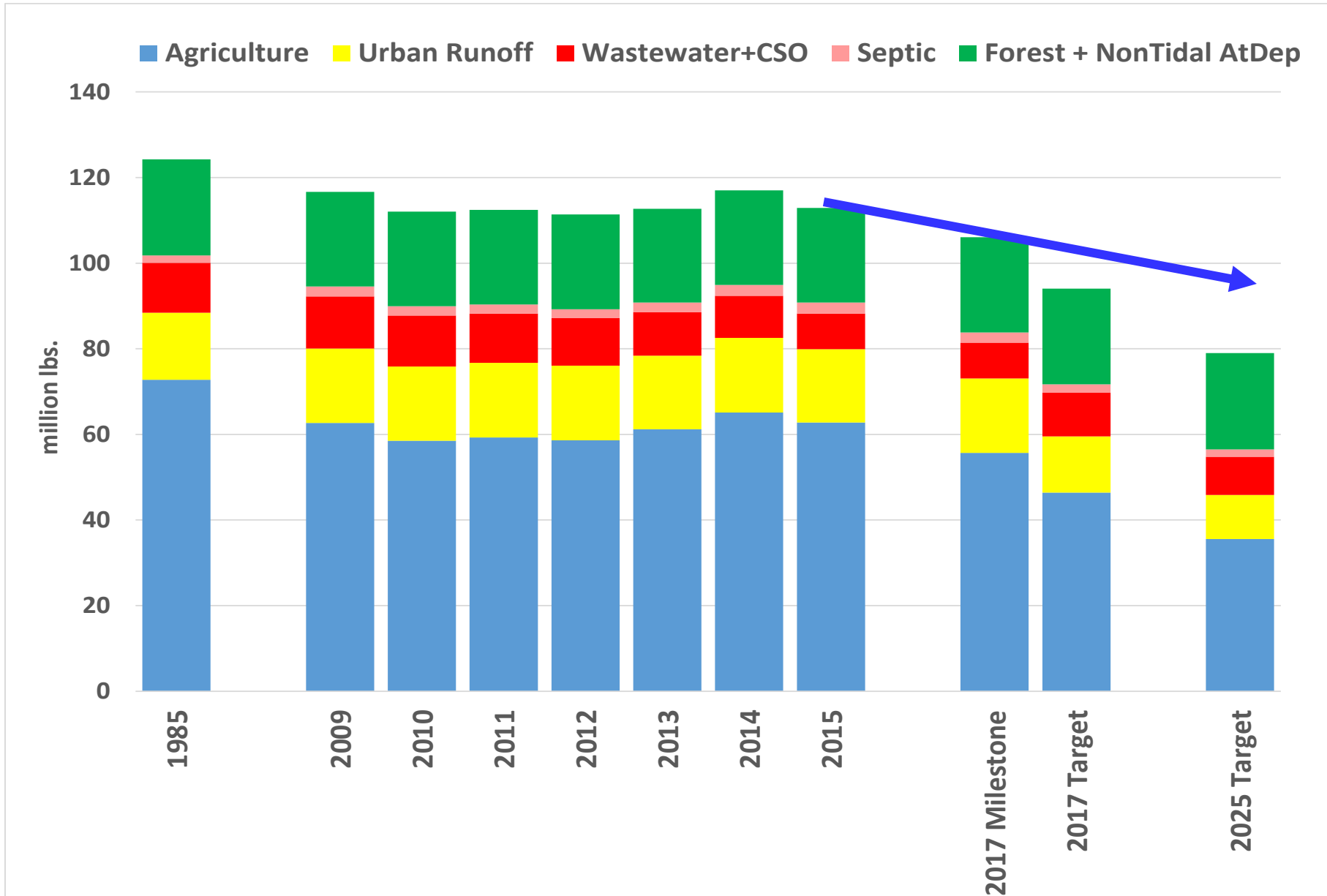
Pennsylvania Nitrogen Loads and Goals: 1985-2025



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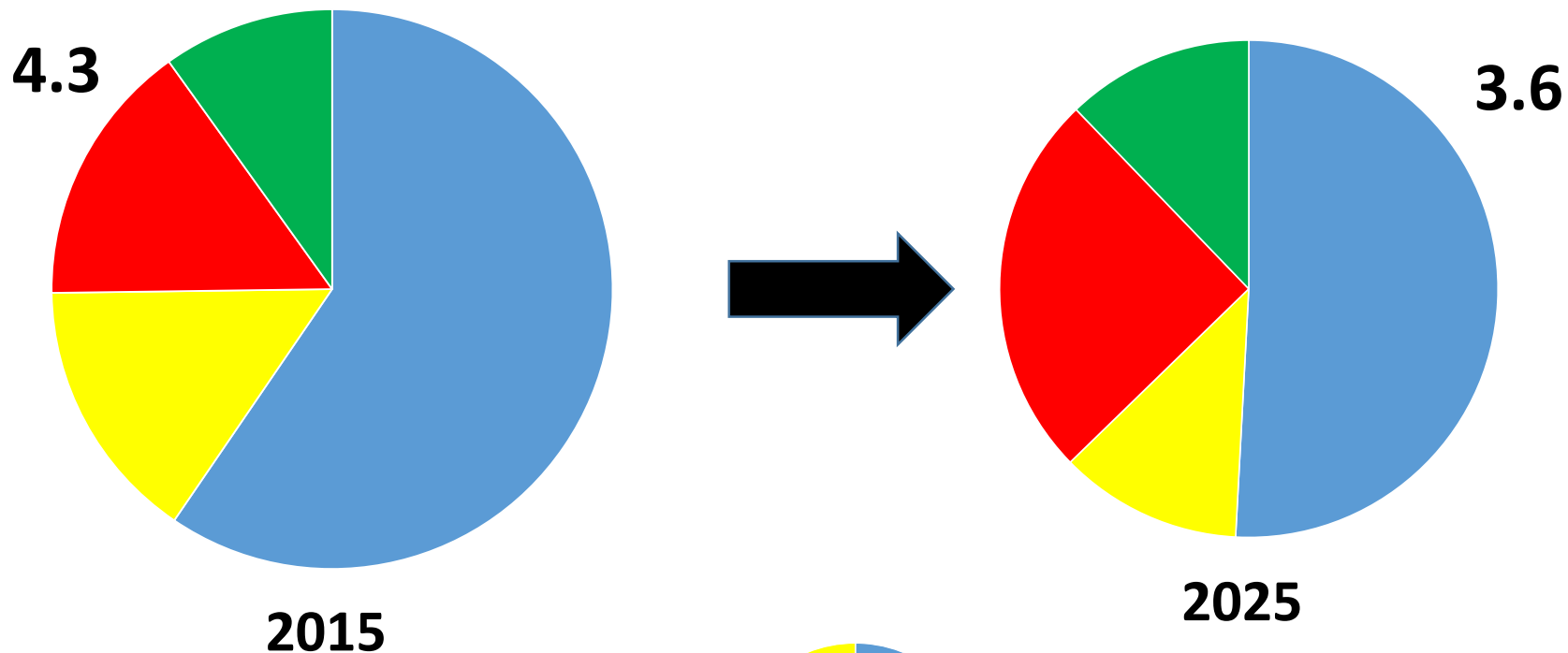


Pennsylvania Nitrogen Loads and Goals: 1985-2025

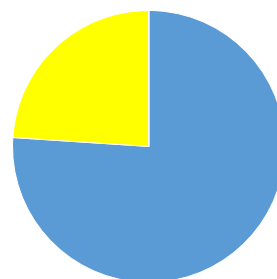


Pennsylvania Phosphorus Loads: 2015-2025

■ Agriculture ■ Urban Runoff ■ Wastewater+CSO ■ Forest+



Where will the remaining phosphorus reductions* come from?



76% Agriculture
24% Urban

*Based on the jurisdictions' Phase II WIPs.

Phase III Watershed Implementation Plans

Expectations—Top 4

- Programmatic and numeric implementation commitments for 2018-2025
- Strategies for engagement of local, regional and federal partners in implementation
- Account for changed conditions: climate change, Conowingo Dam infill, growth
- Develop, implement local planning goals below the state-major basin scales

Pennsylvania's Source Sector Challenges

- Needs to reduce 19 million lbs. nitrogen by 2017 and a total of 34 million lbs. by 2025
- **Responsible for 69 percent of remaining basinwide nitrogen load reductions by 2025**
- **Agriculture will likely be responsible for much more than 80 percent of these nitrogen reductions by 2025**
- The technical assistance/compliance infrastructure, cost share funding are not in place to deliver on these needed reductions

**EPA has shared a set of Pennsylvania Specific
Phase III Watershed Implementation Plans
Expectations with Pennsylvania Agency Secretaries**

Mid-point Assessment

- Data Collection & Analysis
 - Water Quality Monitoring and Trend Analysis
 - Conowingo Dam
 - Climate Change
 - Sector Growth
- Policy and Methodology Decisions – Planning Targets
 - By state, basin
 - Equity vs Cost-effectiveness
- Model Calibration
 - Expert Panel Reports – BMP Efficiencies
 - Historical Data Cleanup

Midpoint Assessment Schedule

- June-July: 2017: Partnership's review of models
- October 2017: Draft Phase III WIP planning targets
- October -Dec 2017: Partnership review of targets
- Dec 2017: Final Phase III WIP planning targets
- Aug 2018: Draft Phase III WIPs shared for partner, stakeholder review
- Dec 2018: Final Phase III WIPs due

Phase 3 Watershed Implementation Plan

- Stakeholder Input and Outreach
 - Steering Committee/Workgroups
 - Website
 - One-Day Kick-Off Conference, Listening Sessions, Public Comment
- Planning Targets & Implementation
 - Sector Specific
 - Local Area Goals
 - Priority Areas/Watersheds
- Measurable Outputs, Milestones
- Emphasis on Local Water Quality, Local Goals, Local Benefits

Local Planning Goals

- Jurisdictional Boundaries (County, Township, Borough, Conservation District)
- Federal or State Facilities
- Regional Entity Boundaries (River Basin Commission, Planning Commission)
- Watershed or sub-watershed
- “Segment-shed” as defined in the TMDL
- Area with a defined need for pollutant reduction (ex. MS4s)
- Targeted area with high pollutant loadings

Phase 3 WIP Schedule

- April, May, 2017 – Form Steering Committee and Workgroups
- **June 5, 2017** – Phase 3 WIP Kick-Off Conference, Harrisburg
- June 2017 – Follow-up Written Comment Response to Conference
- July 2017 through March 2018
 - Workgroups and Steering Committee develop the WIP
 - Additional Outreach Around Development of Local Planning Goals/Sector Specific Plans
- June 2018 – Public Comment Period of Draft Phase 3 WIP
- August 2018 – Submit to EPA for Partnership Review
- October, November 2018 – Revise in Response to Partnership Review
- December 2018 – Submit Final Phase 3 WIP

Other Resources

- Chesapeake Bay Program Website
 - <http://www.chesapeakebay.net>
- Chesapeake Bay Assessment Scenario Tool - CAST
 - <http://www.casttool.org> – County level scenario calculator
- Chesapeake Bay Facility Assessment Scenario Tool - BayFAST
 - <http://www.bayfast.org> – Facility level scenario calculator
- Phase 6 Model Data Visualization Tool – New Beta 4 Run
 - <https://mpa.chesapeakebay.net/Phase6DataVisualization.html>



Office of Water Programs

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DEP Chesapeake Bay Website:

<http://www.dep.pa.gov/Business/Water/Pages/Chesapeake-Bay-Office.aspx#.VrkUGvMo7ct>