



Office of Water Programs

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

Water Resources Advisory Committee

May 10, 2017

Tom Wolf, Governor

Patrick McDonnell, Acting Secretary

Agenda

- Progress Made and the Job Ahead of Us
 - Need Your Engagement to Move Forward
- Midpoint Assessment
 - Allocations
 - Issues
 - Schedule
- EPA Expectations
- Phase 3 WIP Game Plan

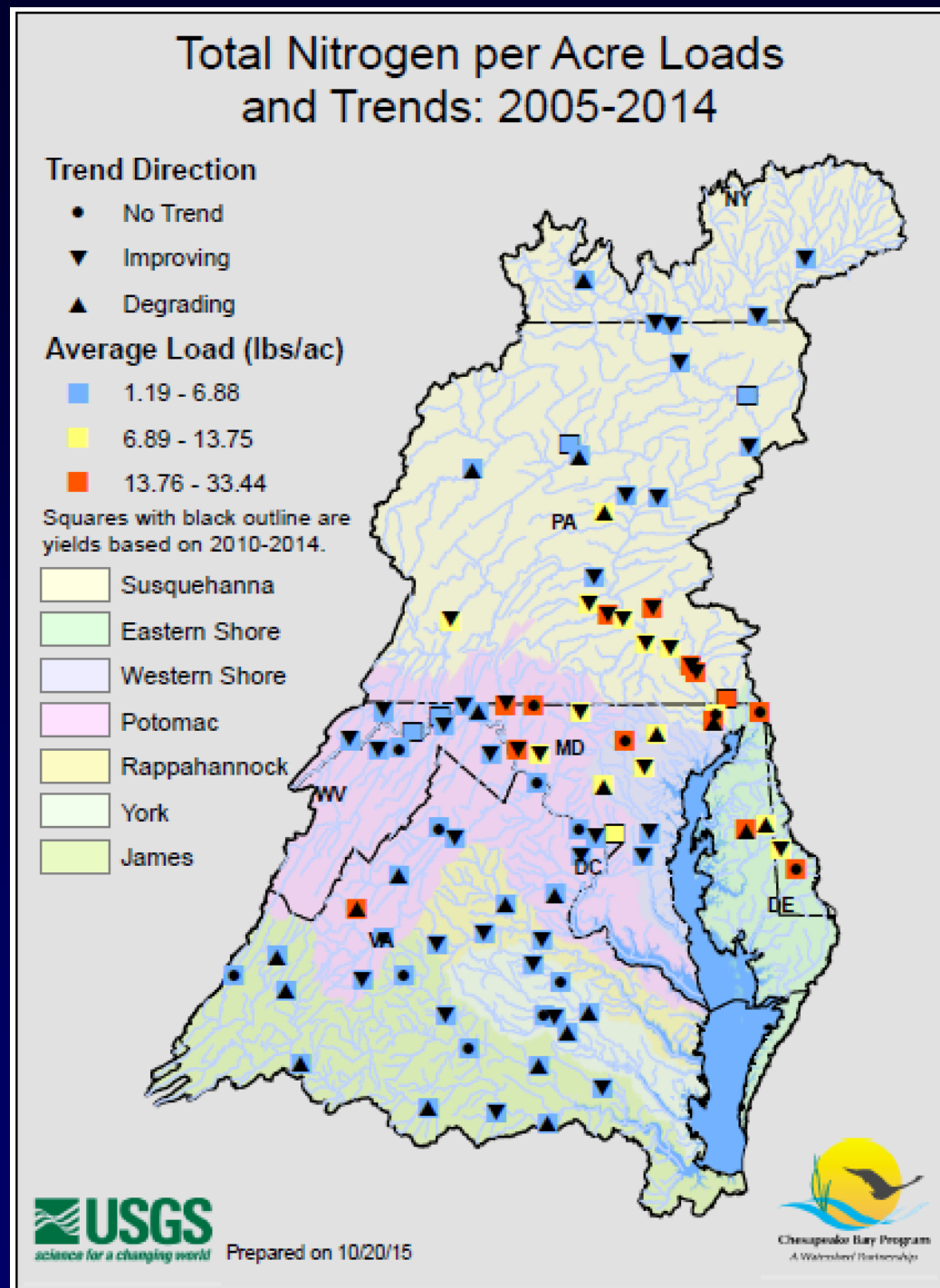
Total Nitrogen per Acre Loads and Trends: 2005-2014

Chesapeake Watershed

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

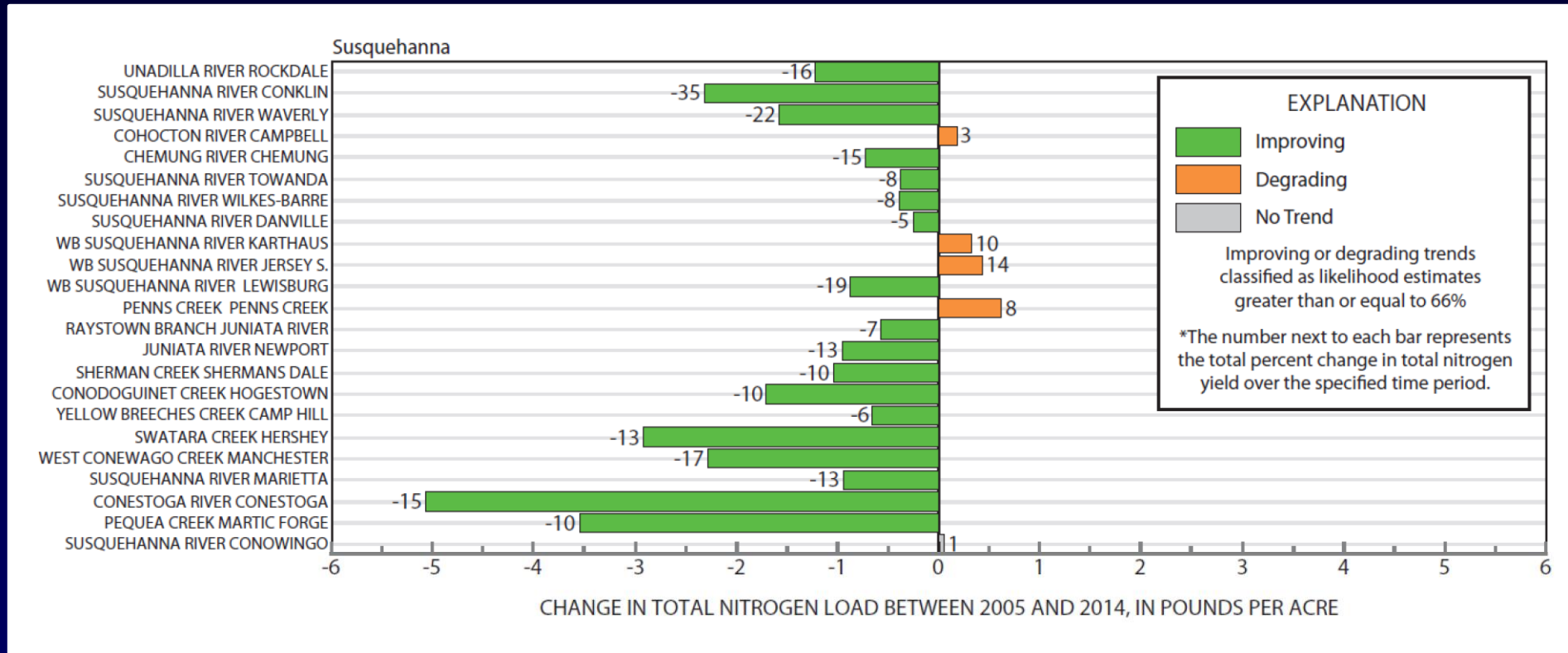
PA: Majority improving

- 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

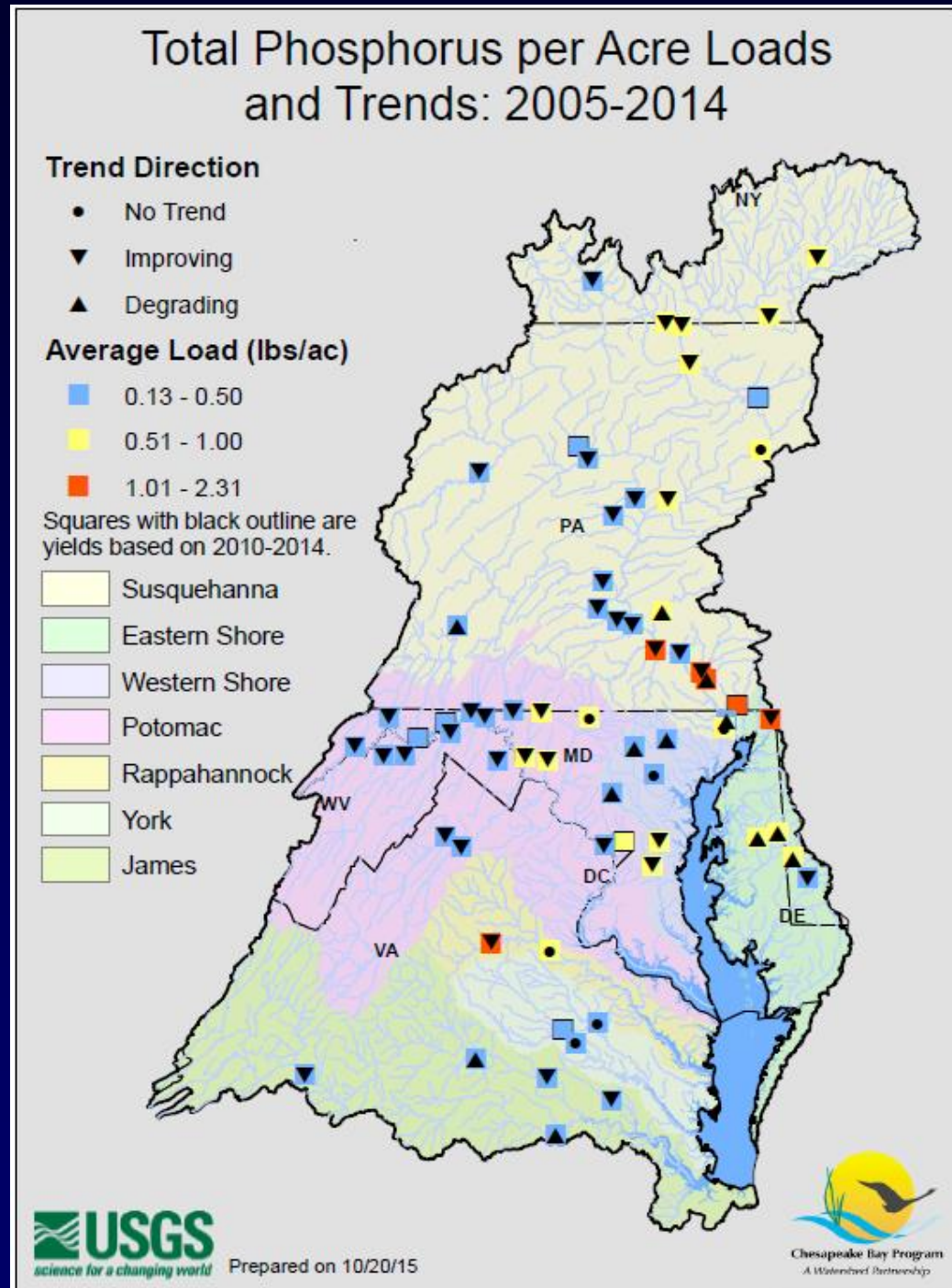
- Above average in PA
- Eastern part of basin

Bay Watershed trends:

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

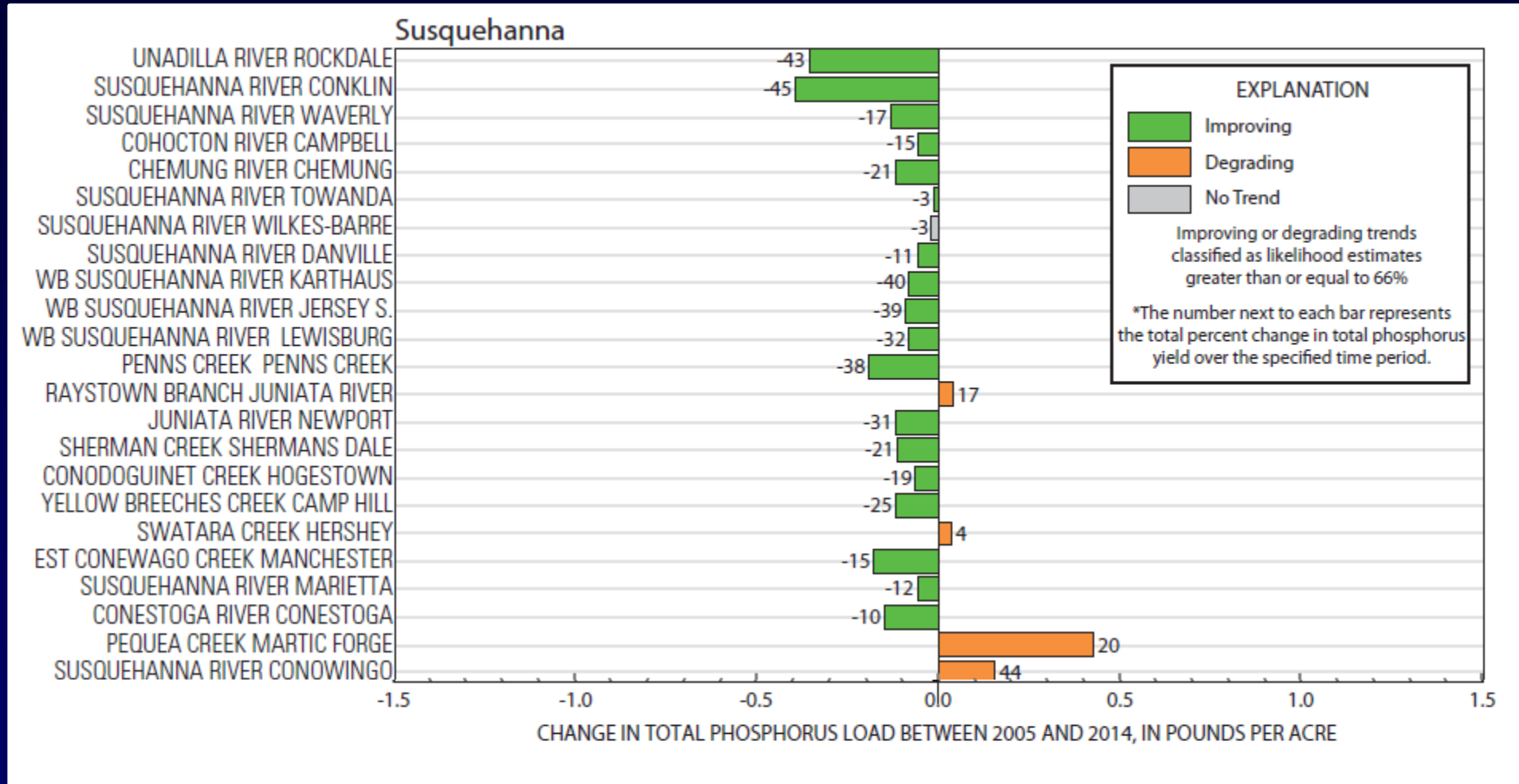
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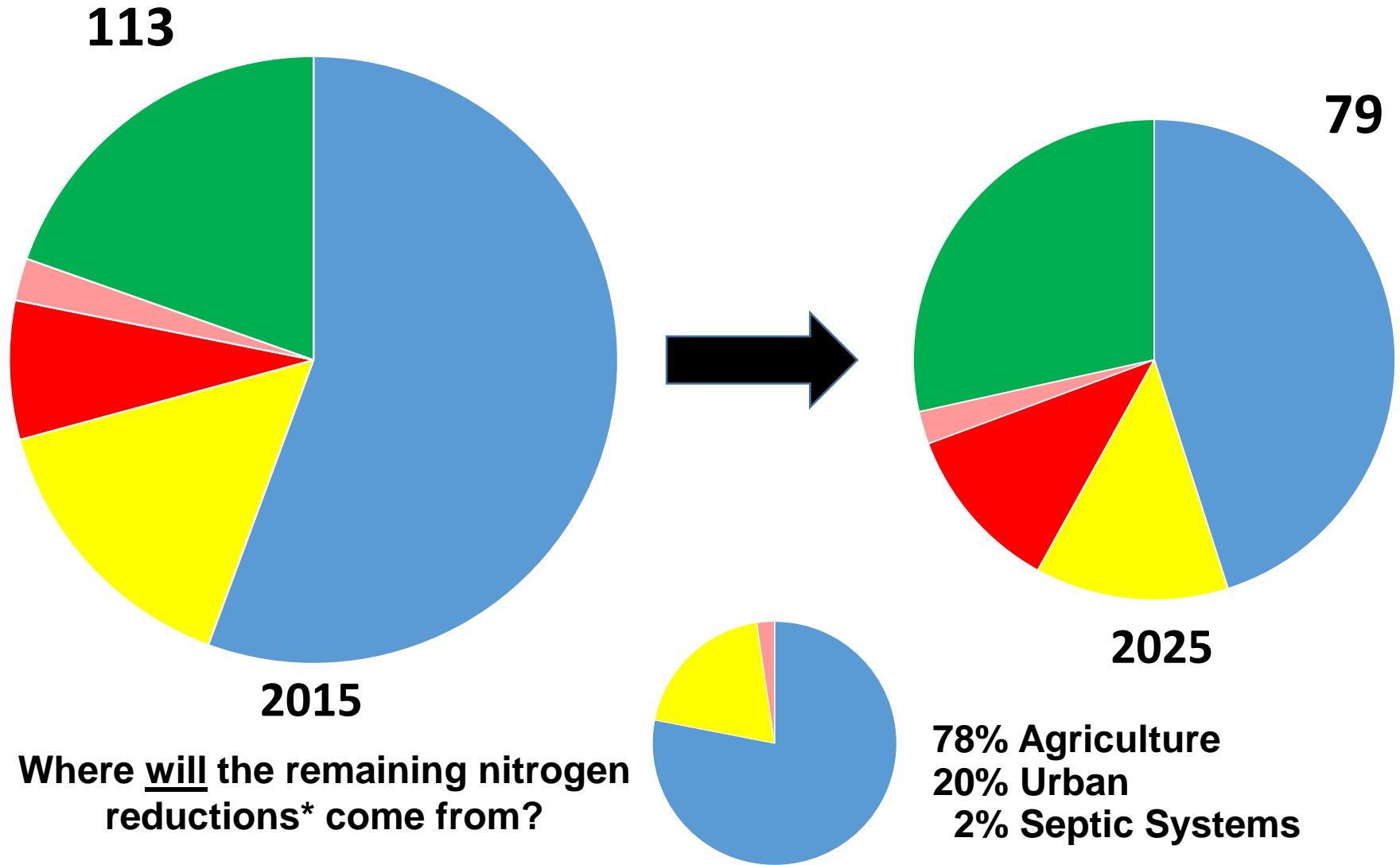
Changes in Phosphorus per Acre Loads: 2005-2014

Susquehanna Watershed



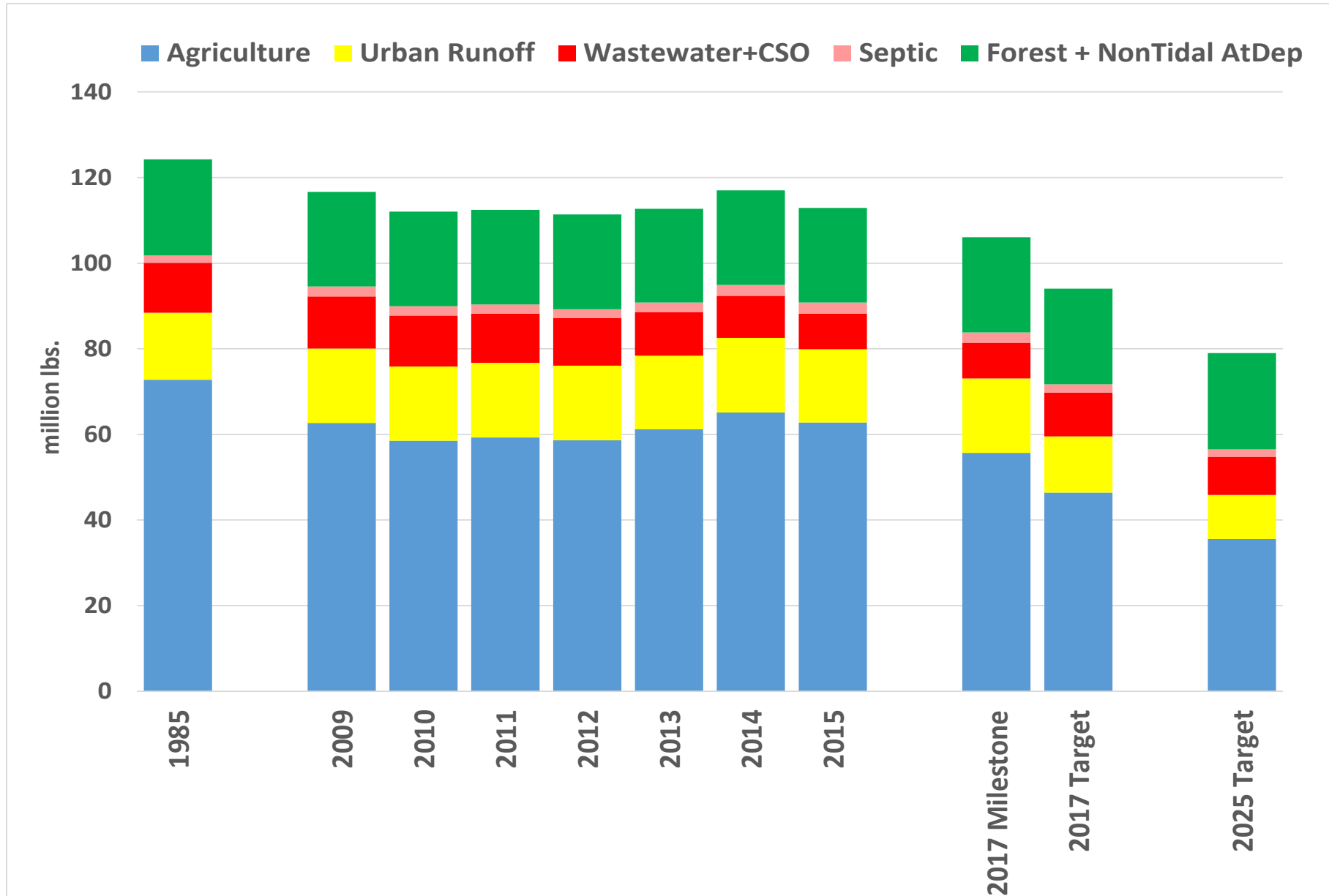
Pennsylvania Nitrogen Loads: 2015-2025

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

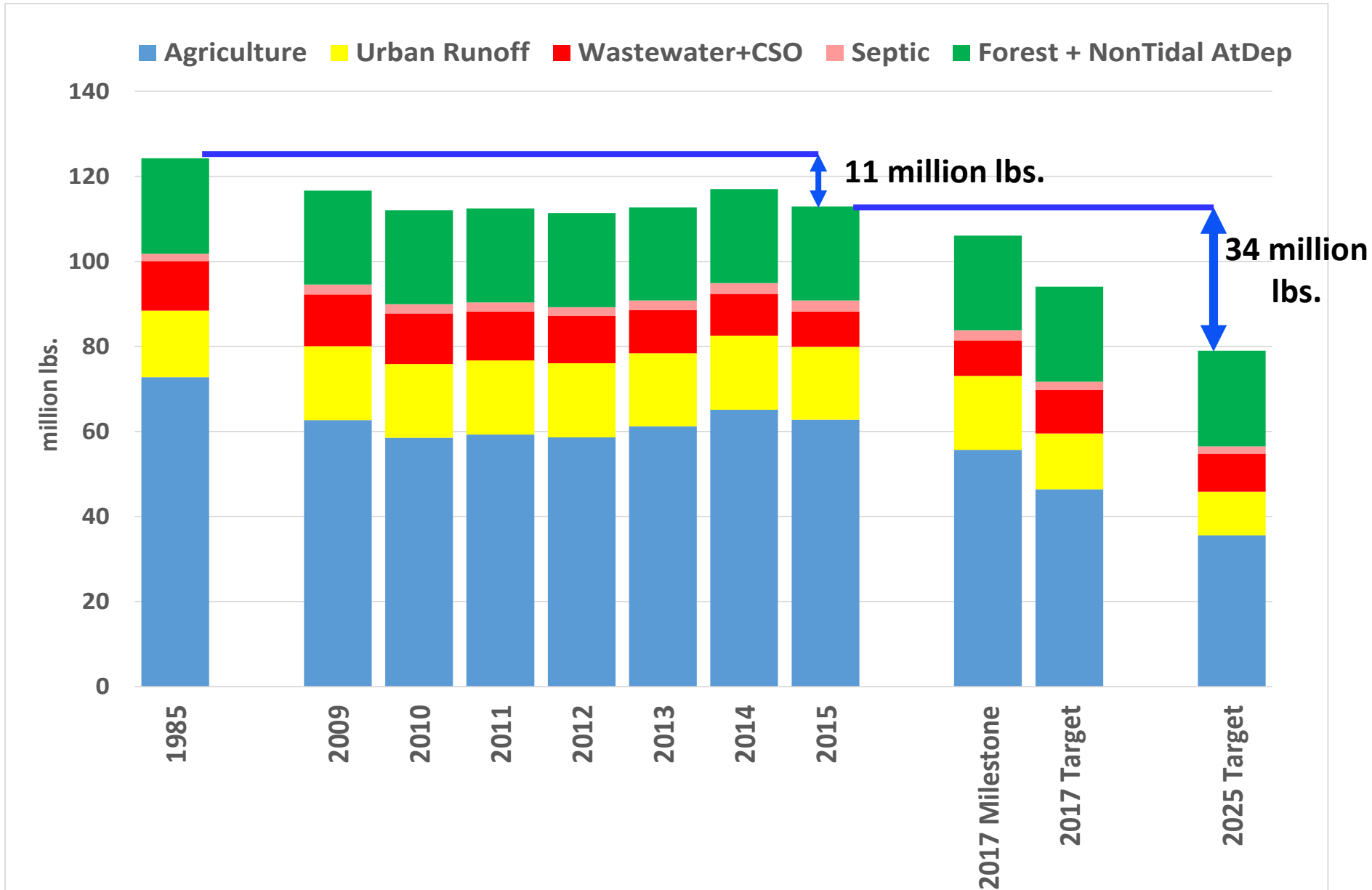


*Based on the jurisdictions' Phase II WIPs.

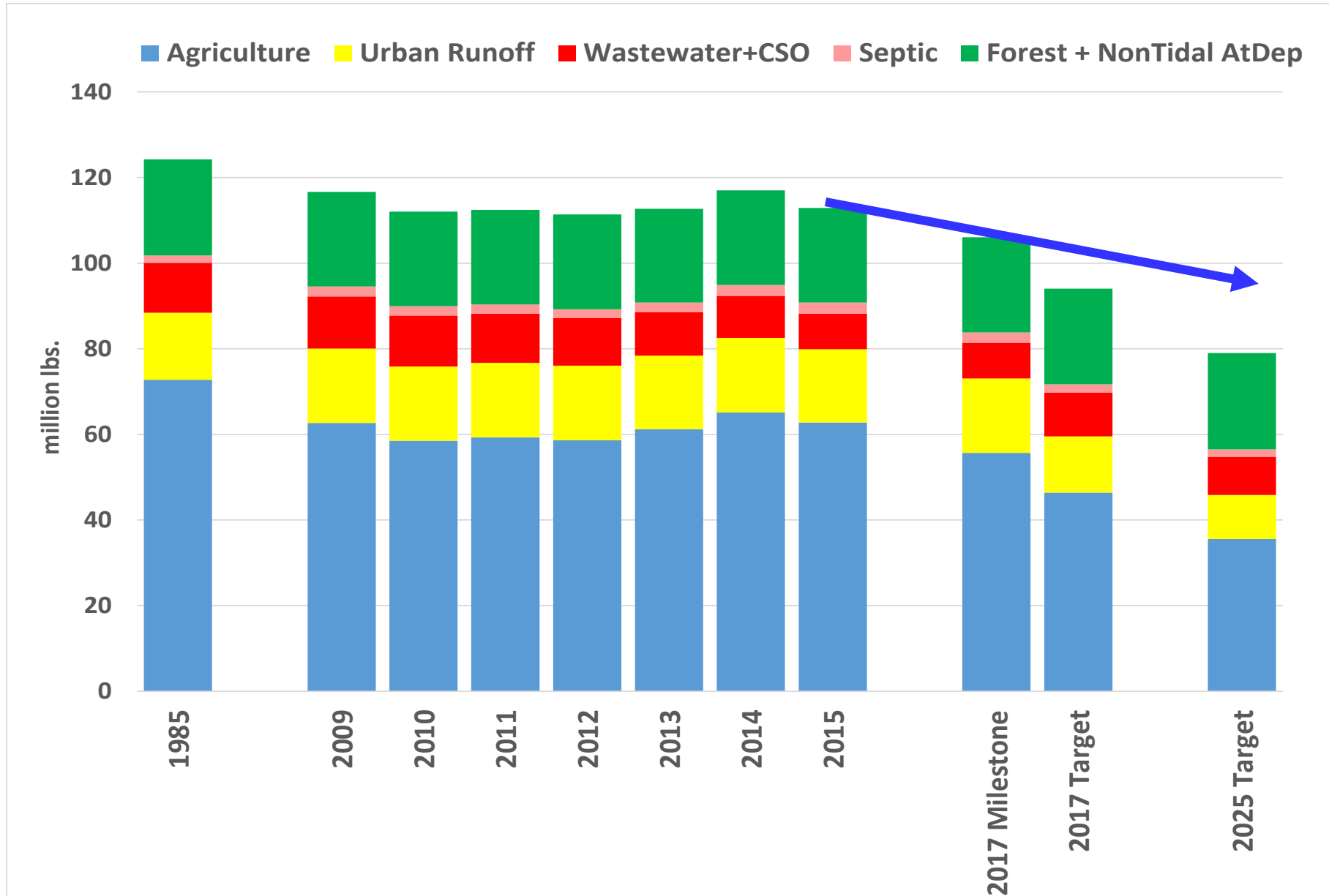
Pennsylvania Nitrogen Loads and Goals: 1985-2025



Pennsylvania Nitrogen Loads and Goals: 1985-2025

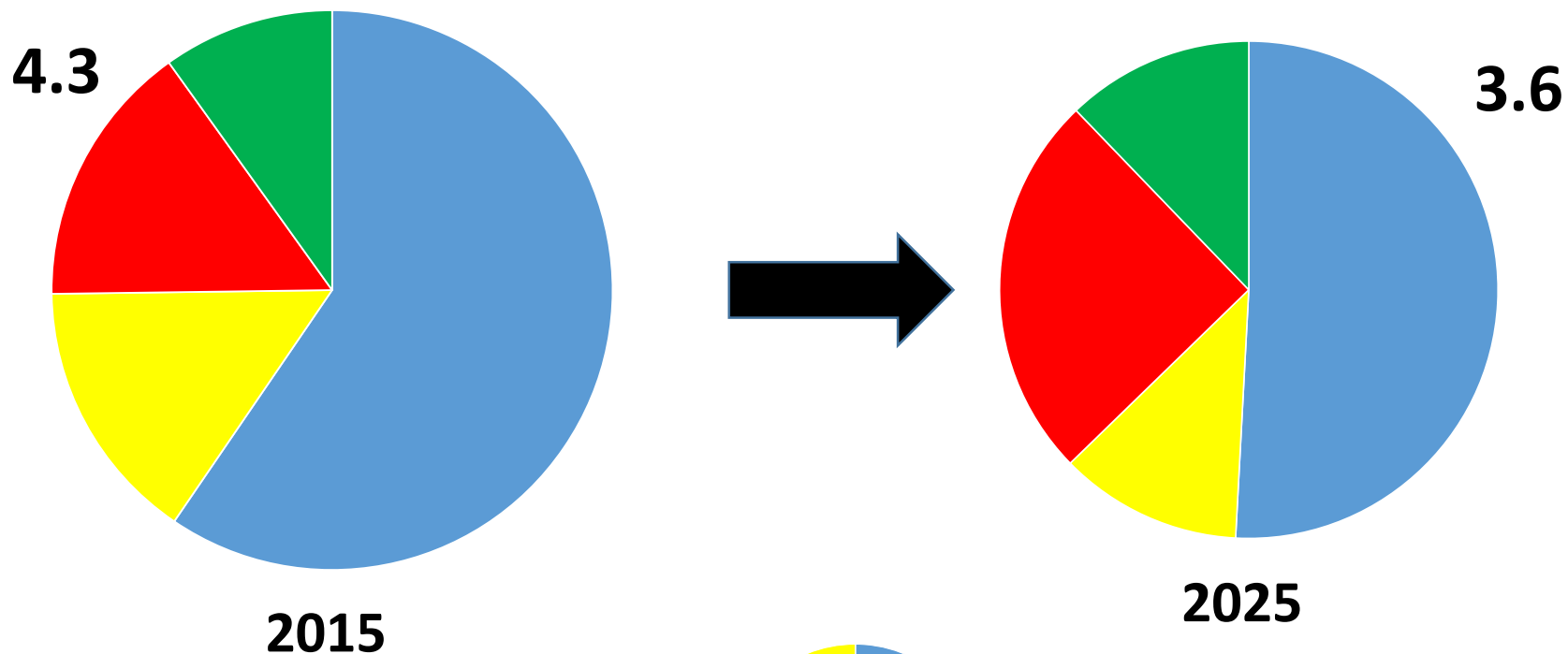


Pennsylvania Nitrogen Loads and Goals: 1985-2025

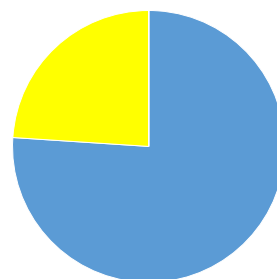


Pennsylvania Phosphorus Loads: 2015-2025

■ 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.

➤ Agricultural Inspection Initiative

- DEP began inspections **August 29, 2016**
- Districts began inspections **October 3, 2016**
- Preliminary Results (as of December 31, 2016):
 - Over 500 Inspections Completed (29,400+ acres inspected)
 - Over 325 by Conservation Districts
 - Over 175 by DEP
 - Results of inspections to date

Data Management Initiatives

- **Penn State Farmer Self-Reporting Survey Results**

- **475,800 acres** of nutrient/manure management; **97,562 acres** of enhanced nutrient management;
- **2,164** animal-waste storage units; **2,106** barnyard runoff-control systems;
- **55,073 acres** of agricultural erosion and sedimentation control plans; **228,264 acres** of conservation plans;
- More than **1.3 million linear feet** of stream-bank fencing; **1,757 acres** of grass riparian buffers; and **5,808 acres** of forested riparian buffers.
- **Total estimated reductions:**
 - Nitrogen -- **1,047,704 lbs/year**
 - Phosphorus -- **79,620 lbs/year**
 - Sediment -- **10,395,906 lbs/year**

- **NRCS Potomac Watershed Remote Sensing Project**

- Collected data on 26 conservation BMPs using a grid approach
- Field verification “spot checks” were done by experienced NRCS staff using the standard USDA NRCS 5% quality assurance/quality control sample

Data Management Initiatives

- **Worldview Development**
 - Used the existing database design that was created for five Pennsylvania county conservation districts and Virginia Department of Environmental Quality
 - Submitted 2016 Progress Data Using the new Database Software
- **PracticeKeeper Software Launch to ALL Districts in July, 2017**
 - 6 Modules – Nutrient Management, E & S Planning, Watershed Projects, Complaints and BMPs
 - DEP staff and 9 Districts pilot testing starting now
- **Hardware for PracticeKeeper**
 - Funding Distributed for tablets for in-the-field data collection

Urban Stormwater Cost Share Program

- Municipalities, MS4 Communities in Blair, Cumberland, Dauphin, Franklin, Lackawanna, Lancaster, Lebanon, Luzerne, Lycoming and York Counties
- \$200,000 maximum per grantee, Total amount available is \$2.4 million
- Round #1 (Awarded July, 2016)
 - Over \$2.2 million awarded to 19 projects
- Round #2 (Estimated award date of September, 2017)
 - Over \$5.5 million requested for 40 projects

<http://www.elibrary.dep.state.pa.us/dsweb/View/Collection-12545>

Conservation District Special Projects

- Support Implementation of the Restoration Strategy
 - BMP Implementation Projects in areas identified as part of the Agricultural Inspection Strategies
 - In impaired watersheds or priority watersheds identified by the County in their Implementation Plans
 - BMP verification and tracking, including the further documentation of voluntary practices
- Priority Projects:
 - Comprehensive solutions, Plan Implementation, Regulatory Compliance
 - More emphasis placed on shovel ready projects where designs are completed
- Available funding is \$2.5 to \$3 million (2 years funding)
 - Over \$4.4 million requested for 58 projects
- Projects **MUST** be completed by **June 30, 2019**.

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 Baywide 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

EPA Pennsylvania Expectations

**EPA will be providing 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

Dates in **BLUE** may change

- June-July: 2017: Partnership's review of models
- October 2017: Draft Phase III WIP planning targets
 - Resolution of Issues around Conowingo, Climate Change, Sector Growth
- October - **Feb 2018**: Partnership review of targets
- **Feb 2018**: Final Phase III WIP planning targets
- **Dec 2018**: Draft Phase III WIPs shared for partner, stakeholder review
- **Mar 2019**: Final Phase III WIPs due

Phase 3 Watershed Implementation Plan

- Stakeholder Input and Outreach
 - Steering Committee/Workgroups
 - Website
 - Communications Strategy Being Developed:
 - 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

Dates in **BLUE** may change

- April, May, 2017 – Form Steering Committee and Workgroups
- **June 5, 2017** – Phase 3 WIP Kick-Off Conference, Radisson Harrisburg
- June 2017 – Follow-up Written Comment Response to Conference
- July 2017 through October 2017
 - Bay Program Partnership Works Through Issues
 - Workgroups Formed, Convened
 - Comments Compiled, Additional Information and Data Compiled
- October 2017 through **May 2018**
 - Workgroups and Steering Committee develop the WIP
 - Additional Outreach Around Development of Local Planning Goals/Sector Specific Plans
- **August/September 2018** – Public Comment Period of Draft Phase 3 WIP
- **December 2018** – Submit to EPA for Partnership Review
- **January 2019**– Revise in Response to Partnership Review
- **March 2019**– 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>



pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION



Office of Water Programs

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DEP Chesapeake Bay Website:

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