



Office of Water Programs

Chesapeake Bay Program Watershed Policy

PA Statewide Conference for Watershed Organizations

March 6, 2017

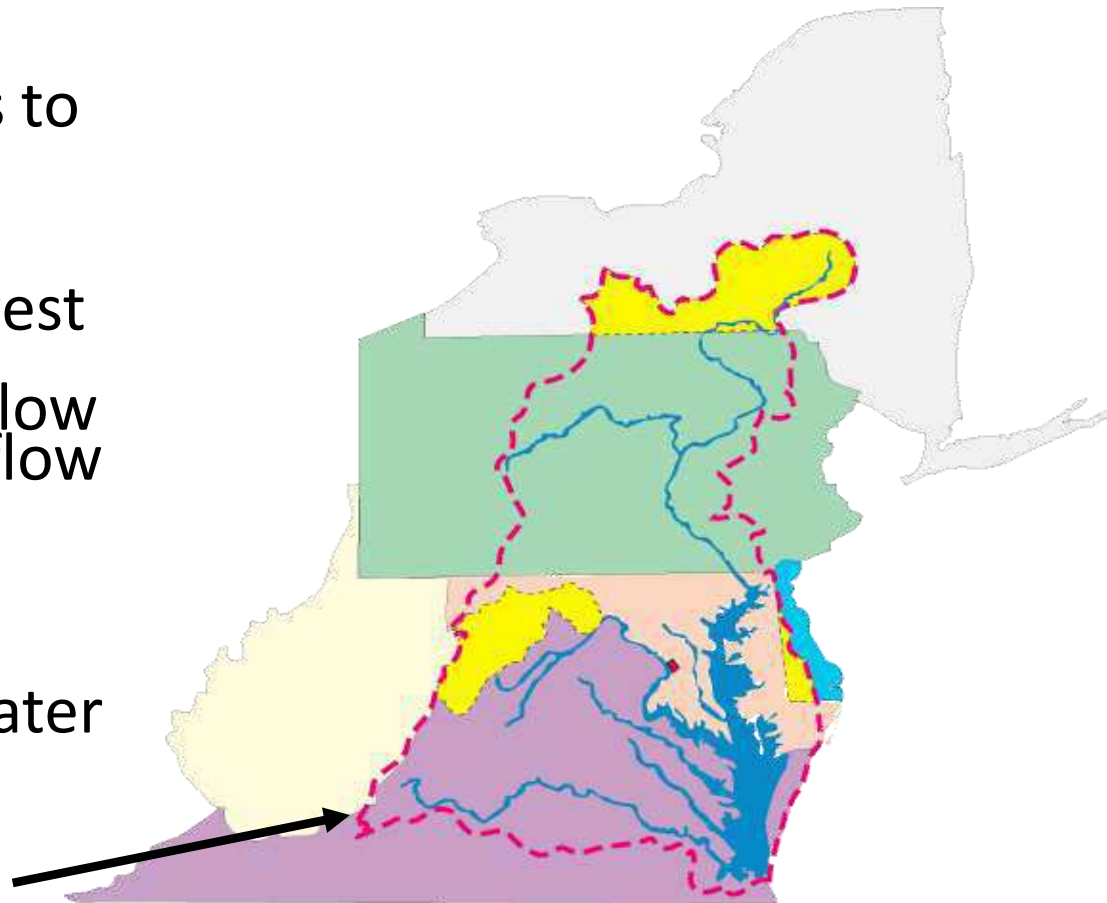
Agenda

- Chesapeake Bay Program – Why Should You Care?
 - Past – Quick Overview
 - Present – Restoration Strategy & Mid-Point Assessment
 - Future -- Phase 3 Watershed Implementation Plan Development
- Other Resources

Chesapeake Bay Watershed – Why Should You Care?

- Over 50 % of the land in PA drains to the Chesapeake Bay.
- The Susquehanna River is the largest tributary of the Chesapeake Bay, providing 90% of the freshwater flow to the upper bay and ½ the total flow into the Bay.
- PA's Potomac Basin provides an additional 2% of the Bay's freshwater flow.

Chesapeake Bay Watershed Boundary



PA's Portion of the Bay Watershed

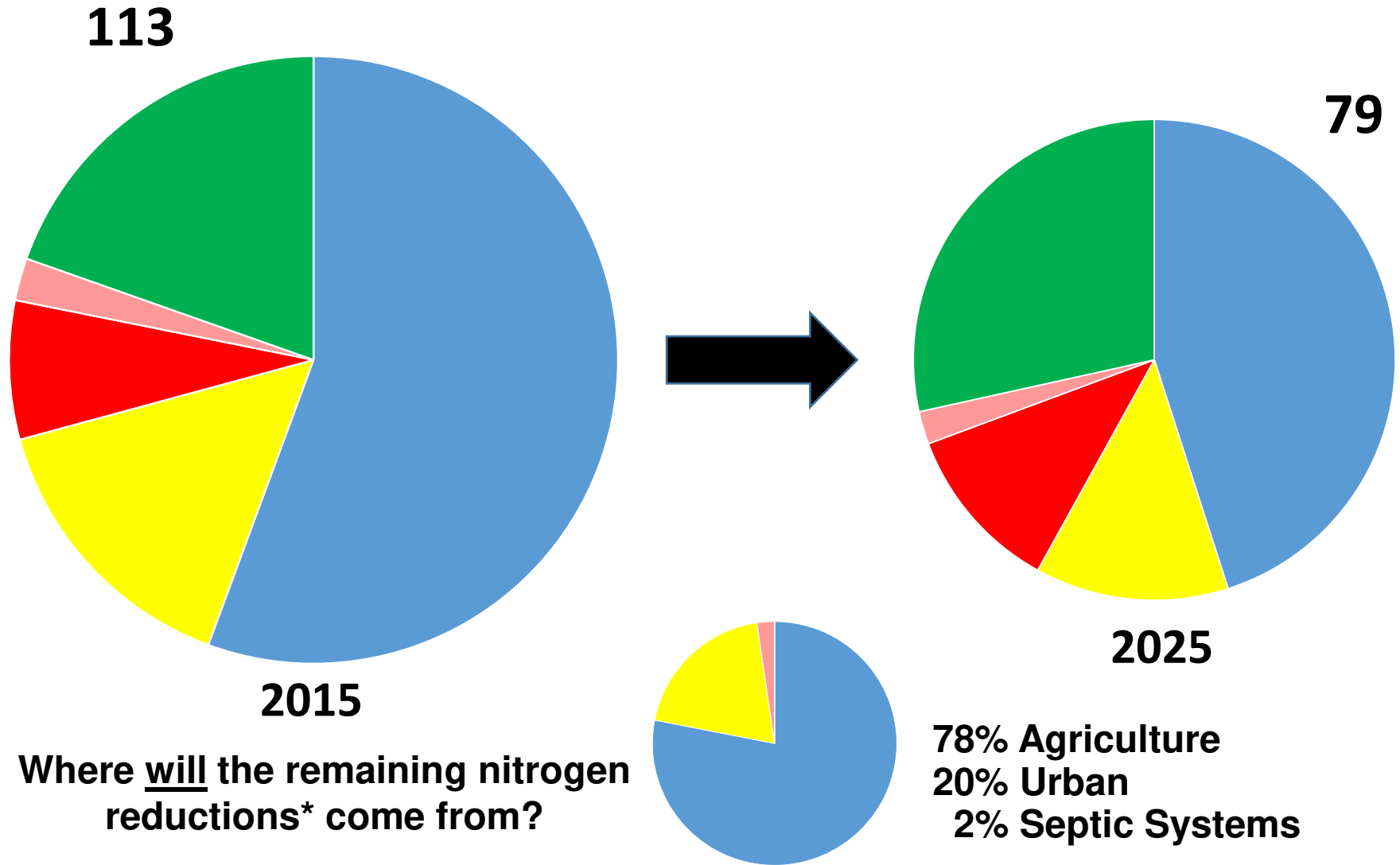


- PA encompasses 35.2% of the Bay watershed -- that's 14,358,159 acres.
- Four PA watersheds
 - Susquehanna River (13,298,520 acres, 32.6%)
 - Potomac River (1,012,222 acres, 2.5%)
 - Eastern Shore (40,262 acres, 0.1%)
 - Western Shore (7,155 acres, 0.02%)
- Impaired PA waters due to major sources:
 - Agriculture 3,558 m.
 - Mine drainage 1,952 m.
 - Urban runoff/stormwater 518m.

Pennsylvania Nitrogen Loads: 2015-2025

From Rich Batiuk, EPA

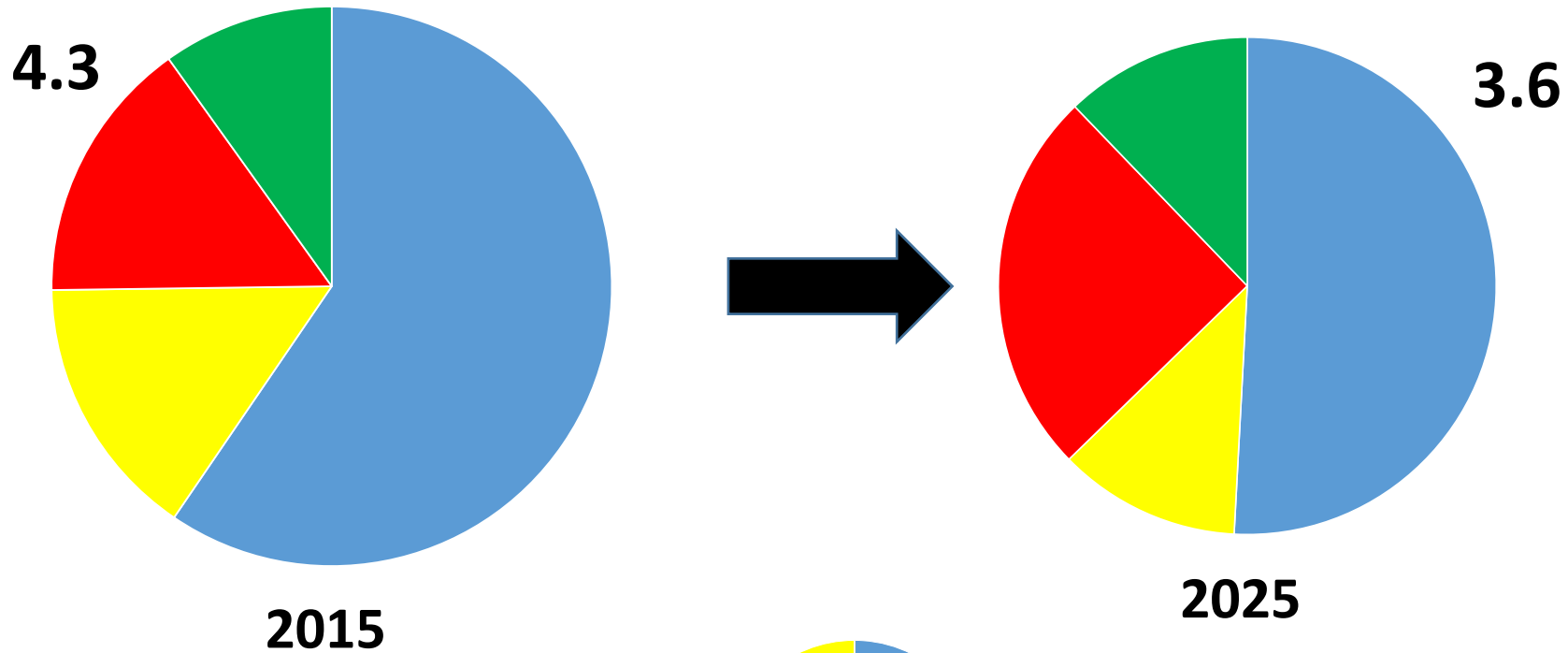
■ Agriculture ■ Urban Runoff ■ Wastewater+CSO ■ Septic ■ Forest+



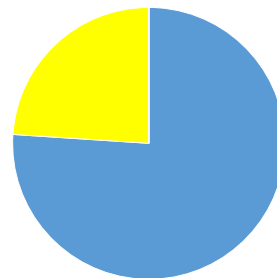
*Based on the jurisdictions' Phase II WIPs.

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.

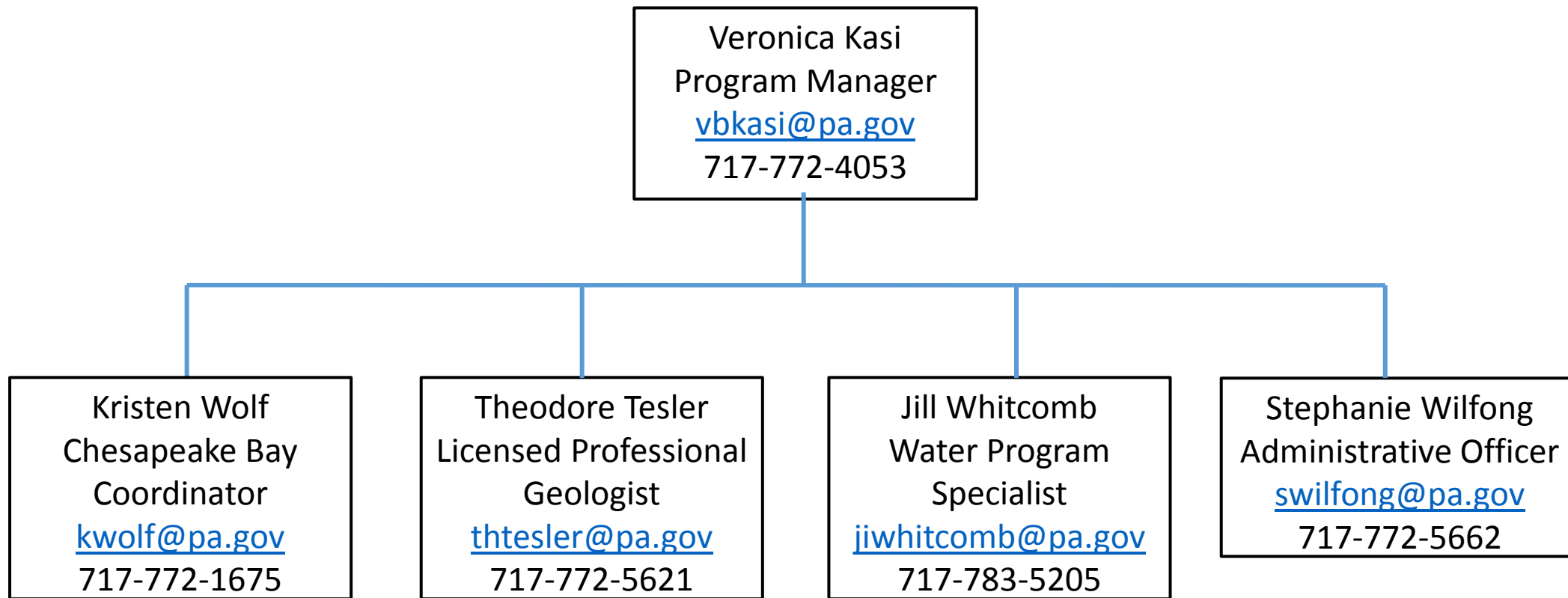
Pennsylvania's Source Sector Challenges

- 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

➤ Restoration Strategy: Six Elements

- 1) Address Pollutant Reduction
- 2) Quantify & Multiply BMPs
- 3) Improve Record-keeping
- 4) Identify Needed Changes
- 5) Establish a DEP Chesapeake Bay Office
- 6) Seek New Resources

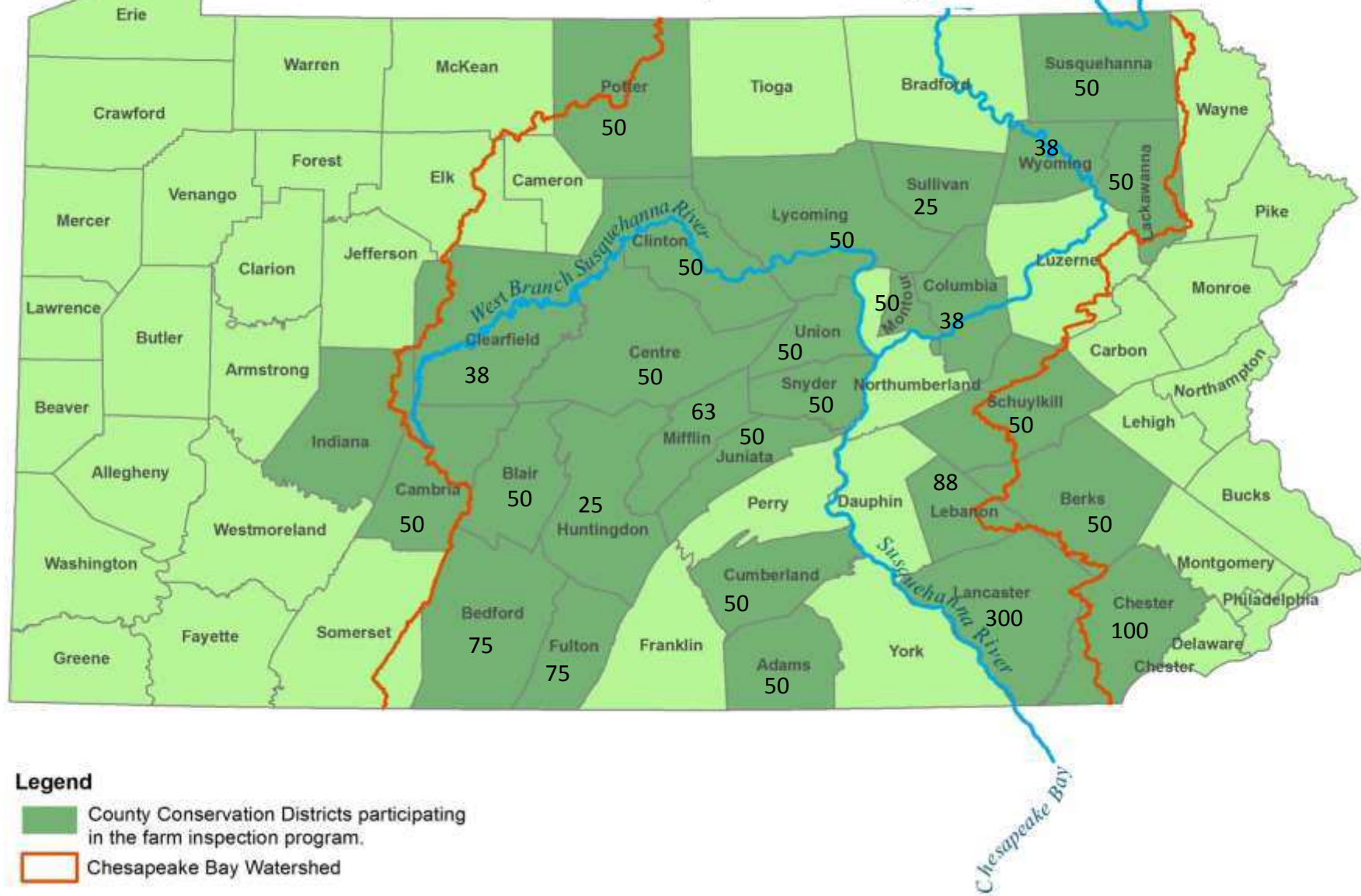
Bay Program Office – Who Are We?



➤ Agricultural Inspection Initiative

- DEP began inspections **August 29, 2016**
- Districts began inspections **October 3, 2016**
- Preliminary Results:
 - Over 470 Inspections Completed
 - Over 330 by Conservation Districts
 - Over 140 by DEP
 - First Deadline was Mid-January
 - Will have statistics on results soon

Counties Participating in Chesapeake Bay Watershed Farm Inspection Program



Legend

- County Conservation Districts participating in the farm inspection program.
- Chesapeake Bay Watershed

Data Management Initiatives

- Worldview Development
 - Used the existing database design created for 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
 - Future Modifications include Ag Compliance Inspections, Federal Stormwater Permit Reporting
- Hardware for PracticeKeeper
 - Funding Distributed through PACD for Tablets (\$1000 per tablet)
 - Minimum one tablet per district, multiple tablets to districts with more than one Bay Technician

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.
- Translates into:
 - Nitrogen -- **1,047,704 lbs/year**
 - Phosphorus -- **79,620 lbs/year**
 - Sediment -- **10,395,906 lbs/year**

- **Remote Sensing Project**

- Submitted to Chesapeake Bay Ag Workgroup – Approval of Protocols for Use
- NRCS is Collecting Additional Field Data to Meet Statistical Standard
- Potential Tool for Future Verification and Documentation

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
- Deadline was March 3, 2017

<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
- Deadline for Submittal was Close of Business **February 28, 2017**
- Available funding is \$2.5 to \$3 million (2 years funding)
- Projects **MUST** be completed by **June 30, 2019**.

Mid-point Assessment -- Present

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

Mid-point Assessment & WIP Development

Deliverable	Deadline
All Phase 6 Model Data Inputs Due (Except Land Use)	December 31, 2016
Final Phase 6 Model Land Use Data Set	December 31, 2016
EPA releases draft expectations for Phase 3 WIPs ¹	January 1, 2017
Final Calibration of Watershed Model	January through March, 2017
Local Area Targets recommendations	March 1, 2017
Partnership fatal flaw review of Phase 6 Watershed Model	March-May, 2017
EPA releases “interim” final expectation for Phase 3 WIP	April 2017 January 16, 2017
Release of final Phase 6 Model	June 2017
EPA releases draft Phase 3 Planning Targets	June 2017 August 2017
EPA releases final Phase 3 Planning Targets	December 2017
Draft Phase 3 WIPs due to EPA	August 2018
EPA feedback on draft Phase 3 WIPs	October 2018
Final Phase 3 WIPs due to EPA	December 2018

Phase 3 Watershed Implementation Plan -- Future

- Stakeholder Input and Outreach
 - Steering Committee/Workgroups
 - Website
 - Listening Sessions, Public Comment
- Planning Targets & Implementation
 - Sector Specific
 - Local Area Goals
 - Priority Areas/Watersheds
- Measurable Outputs, Milestones
- Emphasis on Local Water Quality
- Additional Requirements Due to “Backstop Status”
 - Agriculture Sector
 - Urban Sector

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

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
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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>