



pennsylvania
DEPARTMENT OF ENVIRONMENTAL
PROTECTION



Chesapeake Bay Program Office

Pennsylvania's Phase 3 Chesapeake Bay Watershed Implementation Plan: Progress, Projects, and Partners

State Team Meeting

July 28, 2022

Tom Wolf, Governor

Ramez Ziadeh, P.E., Acting Secretary

Agenda

- Opening Remarks
- Pennsylvania's Progress
- Pennsylvania's Projects
- Pennsylvania's Partners



Pennsylvania's Progress



Clean water:
Great for PA
Good for the Bay

Chesapeake Bay Office Transparency and Reporting

- Reporting to EPA
 - July
 - Final amended Phase 3 WIP – July 18, 2022 (Complete)
 - Review and comment on draft EPA Animal Agriculture Programs Assessment Report – July 25, 2022 (Complete)
 - Chesapeake Bay Regulatory Accountability Program (CBRAP) and Chesapeake Bay Implementation Grant (CBIG) semi-annual progress reports – July 30, 2022
 - August
 - Section 319 Nonpoint Source Management semi-annual progress report – August 1, 2022 (Complete)
 - Chesapeake Bay Accountability Recovery Act (CBARA) state cross-cut report – August 1, 2022 (Complete)
 - Final 2022-2023 Programmatic and 2022-2023 Numeric Milestones – August 5, 2022
 - Hosting EPA Region 3 State Partnerships Branch on a Field Tour of Fishing Creek and Conowingo Creek Watersheds – August 26, 2022
 - Ongoing
 - Bi-weekly EPA Chesapeake Bay Program Office (CBPO) Technical Assistance meetings
 - Bi-weekly / monthly EPA CBPO and EPA Water Division WIP Progress meetings
 - Monthly Section 319 Nonpoint Source Management meetings

The Phase 3 WIP Amendment was submitted to EPA and published to the DEP Website.

It outlines how PA will meet **100% of its 2025 targets** for Nitrogen, Phosphorus and Sediment reduction.

The Amendment updates the WIP to:

- Identify funding needs and opportunities for state, county-level, and sector initiatives.
- Ensure EPA modeling is updated to accurately reflect pollution reduction measures already on the ground.
- Define more ways to reach clean water goals through state, regional, and county partners.
- Provide implementation support for Countywide Action Plans.



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Pennsylvania's Progress

- Pennsylvania's Phase 3 WIP was finalized in August 2019.
- 2020 and 2021 reporting years combined (July 2019 through June 2021), yields a credited Nitrogen reduction of **6.89 million pounds!**



Equivalent to **246 dump trucks of nitrogen** removed from the Chesapeake Bay!

2020 Report = 4.41 million pounds of nitrogen reductions
2021 Report = 2.48 million pounds of nitrogen reductions

Pennsylvania's Progress

- Top Four Priority Initiatives, as identified in the Phase 3 WIP:

Table 2.9. Implementation Costs for Top Priority Initiatives

Priority Initiative	Cost (in millions)	Nitrogen Reduction	Phosphorus Reduction
Agricultural Compliance	\$33.1	14%	12%
Soil Health	\$32.9	14%	14%
Forest Buffers	\$28.1	16%	49%
Grass Buffers	\$3.3	8%	37%
TOTAL	\$97.7	50%	86%

Pennsylvania's Progress

• 2021 Reporting Highlights

• Agricultural Compliance:

- Nutrient Management Core Nitrogen – **533,883 acres** reported (39.6% increase from 2020)
- Nutrient Management Core Phosphorus – **533,793 acres** reported (62.3% increase from 2020)
- Soil and Water Conservation Plans (Ag E&S Plans) – **534,968 acres** reported (12.2% increase from 2020)

• Soil Health:

- Cover Crops – **341,524 acres** reported (34.9% increase from 2020)

• Forest Buffers:

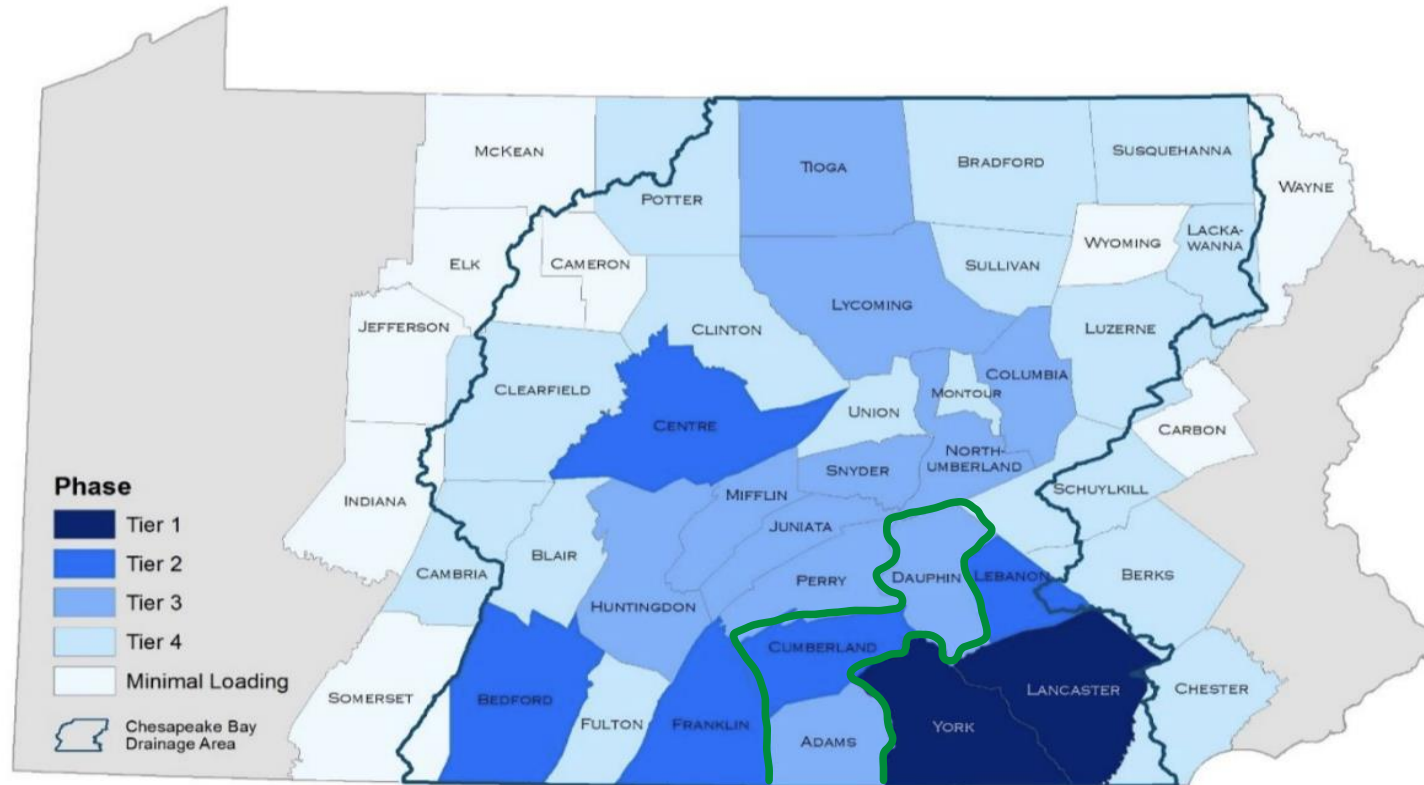
- Forest Buffers on Fenced Pasture Corridor – **1,445 feet** reported (29.1% increase from 2020)
- Forest Buffers – **10,822 acres** reported (10.4% increase from 2020)

• Animal Waste Management Systems:

- Animal Waste Management Systems – **1,156,393 animal units** reported (3.0% increase from 2020)
 - Each animal unit is 1,000 pounds of animal weight.
This reported increase is equivalent to about 24,000 Holstein dairy cows

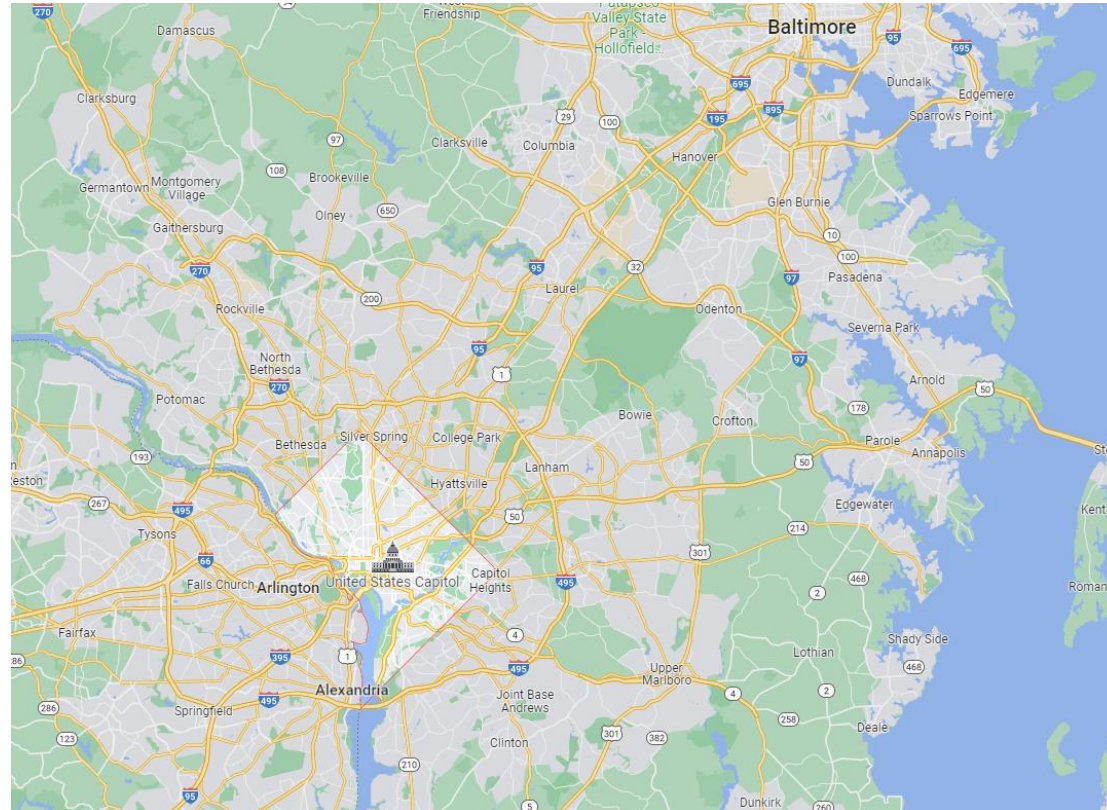
Pennsylvania's Progress

Nutrient Management Core Nitrogen + Core Phosphorus = 1,067,626 acres
Greater than Adams, Cumberland, and Dauphin counties total combined Area



Pennsylvania's Progress

Soil and Water Conservation Plans = 534,968 acres
12 times greater than the size of Washington D.C.



Pennsylvania's Progress

- **2021 Reporting Highlights**

- Developed Sector

- Urban Stream Restoration – **39,667 feet** reported (93.1% increase from 2020)
- Dirt, Gravel and Low Volume Roads (DGLVR) – **2,403,572 feet** reported (7.4% increase from 2020)

- Forestry

- Forest Harvesting Practices – **21,731 acres** reported (25.2% increase from 2020)

Water Quality Monitoring

- Water Quality Monitoring is showing the results of Pennsylvania’s historic and recent efforts to improve, restore, and protect water quality throughout the Chesapeake Bay watershed.
 - [Pennsylvania’s 2022 Integrated Water Quality Report \(IWQR\)](#) – more than 77 miles of streams have been **restored** for one or more uses in the Chesapeake Bay Watershed. This includes 32 miles of Aquatic Life use restored in the Bennett Branch Sinnamahoning Creek, a tributary to the West Branch Susquehanna River – the largest recorded Acid Mine Drainage (AMD) restoration in DEP’s history. The 2022 IWQR shows the third highest recorded restoration of miles for any two-year report cycle.
 - [USGS 2020 Nutrient and Sediment Trends Report](#) – This report provides a summary of long-term (1985-2020) and short term (2011-2020) trends in nitrogen, phosphorus, and suspended sediment loads for the River Input Monitoring (RIM) stations.
 - The **Susquehanna River** at Conowingo, MD shows **improving** long-term and short-term trends for nitrogen and phosphorus, and **improving** short-term trends for sediment.
 - The **Potomac River** at Chain Bridge, MD shows **improving** long-term and short-term trends for nitrogen, and **improving** long-term trends for phosphorus and sediment.



**Dr. Kandis Boyd, Director
EPA Chesapeake Bay Program Office**



Pennsylvania's Projects



Clean water:
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**Carly Dean, Program Manager
Chesapeake Conservancy**





Pennsylvania's Partners



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Pennsylvania's Phase 3 WIP Implementation Strategy

Chesapeake Bay Office

Statewide Leadership, Coordination & Support

**Implementation
State Team & Action Leaders**



Local Action



Reporting



**Communication
& Engagement**



**Programmatic
Actions**



**Monitoring
& Data Management**





Legislative and Funding Opportunities for Pennsylvania



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**Marel King, Pennsylvania Director
Chesapeake Bay Commission**



**Harry Campbell, PA Science and Policy Advocacy Director
Chesapeake Bay Foundation**



Pennsylvania's Response to Legislative and Funding Opportunities



**Karl Brown, Executive Secretary
State Conservation Commission**

Questions





Summary and Wrap-Up



Near-Term Next Steps

- Submit Final 2022-2023 Programmatic and Numeric Milestones to EPA on August 5, 2022
- Review and score 2022 Growing Greener Plus and FY2023 Section 319 Nonpoint Source Management Grant Applications
- Execute Five-Year Nutrient and Manure Management Delegation Agreements with Conservation Districts
- Develop and implement new Agricultural Conservation Assistance Program (ACAP) and allocate additional funds for Conservation Districts through multi-agency partnerships
- Develop and implement new Pennsylvania Clean Water Procurement Program through multi-agency partnerships
- Work with EPA on the 2023 Renewal of the PAG-12 Concentrated Animal Feeding Operation (CAFO) General Permit

Summary

- Pennsylvania continues to show success through programmatic, policy, funding, legislative, and local action.
- DEP continues to add reporting sources and communicates with EPA and stakeholders on a regular basis.
- Funding for additional human resources and projects is essential to implement the programs and priority initiatives called for in the CAPs and Phase 3 WIP.
- Nutrient and sediment reductions are estimated using modeling tools and scenarios were developed to demonstrate cumulative effect of Pennsylvania's watershed restoration efforts.
- DEP thanks all Pennsylvania citizens, county lead entities, conservation districts, clean water coordinators, and legislative, state, federal and nonprofit organizations for the efforts that you have put forth through today. We are excited to continue the positive momentum!



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