

# Chesapeake Bay and Agriculture Compliance

Bureau of Watershed Restoration and Nonpoint Source Management  
Chesapeake Bay Watershed Restoration Division  
8/28/2025





# 2024 WIP Milestone Highlights

- The Sustainable Agriculture Board was appointed in 2024 and grant awards will begin in 2025.
- The FY 24/25 state budget included a dedicated fund for Agriculture Conservation Assistance Program (ACAP) of \$35 million, through Clean Streams Fund.
- Over \$150 million in ACAP funds from the original federal American Rescue Plan (ARPA) funds were committed by the 2024 deadline.
- The FY 24/25 state budget included a \$5 million annual increase in the nutrient management administrative line, ensuring that the full-time equivalent (FTE) increase for nutrient management technicians in delegated counties will continue.
- The State Conservation Commission continued to administer the Conservation Excellence Grant program (CEG) in 2024 totaling \$26.6 million invested in the program for 136 agriculture Best Management Practices (BMPs) in Tier 1 and Tier 2 Bay counties.



# 2024 WIP Milestone Highlights

- Over the life of the Abandoned Mine Land (AML) reclamation program, more than 34,500 acres have been reclaimed and > 200 stream miles restored.
- Approximately 50 acres of wetland restoration through legacy sediment removal.
- PA was awarded \$396 M for Reducing Industrial Sector Emissions in PA (RISE PA program) to provide competitive grants and incentives for small, medium, and large-scale decarbonization projects across Pennsylvania.
- DCNR celebrated the planting of a nearly 300-acre buffer at the new Big Elk Creek State Park during Earth Week of 2024
- Resource Enhancement and Protection Program (REAP) issued an estimated \$790,000 in credits for 28,000 acres of cover crops.



# 2024 WIP Milestone Highlights

- DEP received 155 applications totaling approximately \$44 million for the 2024 Growing Greener Plus grant round. DEP will award more than \$15 million; 45 grants in the Chesapeake Bay Watershed and 48 grants throughout the rest of Pennsylvania.
- DEP 319 Grant received 12 applications totaling \$5,193,321. Nine applications totaling \$3,658,358 were recommended for funding. In total, there are \$3,658,358 for grant awards, \$1,104,542 for DEP projects, and \$10,000 for EPA (in-kind) project.
- DEP Countywide Action Plan (CAP) grant program approved 205 projects for funding with estimated reductions:
  - 110,000 pounds/year of nitrogen
  - 42,150 pounds/year of phosphorus
  - 11.8 million pounds/year of sediment
- DEP Infrastructure Investment and Jobs Act (IIJA) funding accounts for a significant percentage of CAP grant funding for local partners approximately \$7.1 million for 2025 projects and approximately \$18.2 million over the entire 5-year grant cycle.

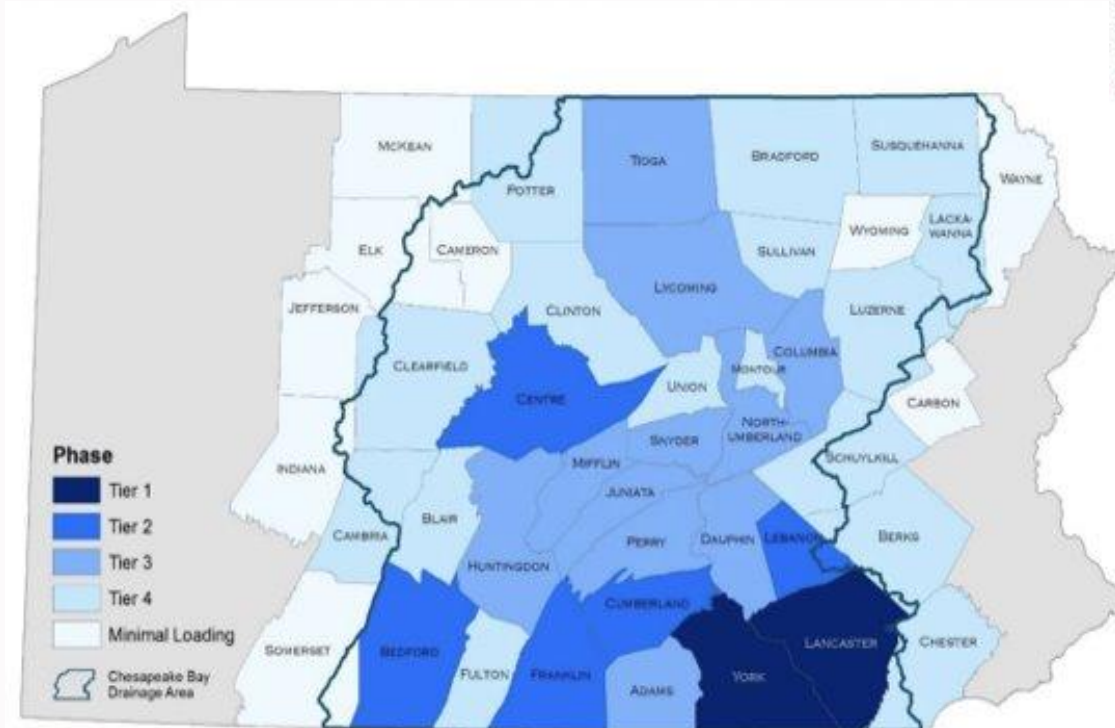


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# How We're Working Together to Succeed

- Core Team of **40+** Bureau of Watershed Restoration and Nonpoint Source Management staff covering statewide and Chesapeake Bay nonpoint source management and watershed restoration efforts
- **34** counties with **30** Countywide Action Plans (**1** regional plan)
- **1,200+** partners directly and indirectly involved in implementing county CAPs
  - **18** Clean Water Coordinators
  - **13+** municipalities engaged
  - **90+** non-profit organizations engaged
  - **130+** consultants/contractors engaged
  - **170+** landowners engaged
- Private and public entities represented with **20+** serving as Statewide Action Leaders supporting Phase 3 WIP Implementation and our local CAP Implementation Teams
- **48+** Data Reporting Entities – Federal, State, Local, and Non-Profit

# Partnerships

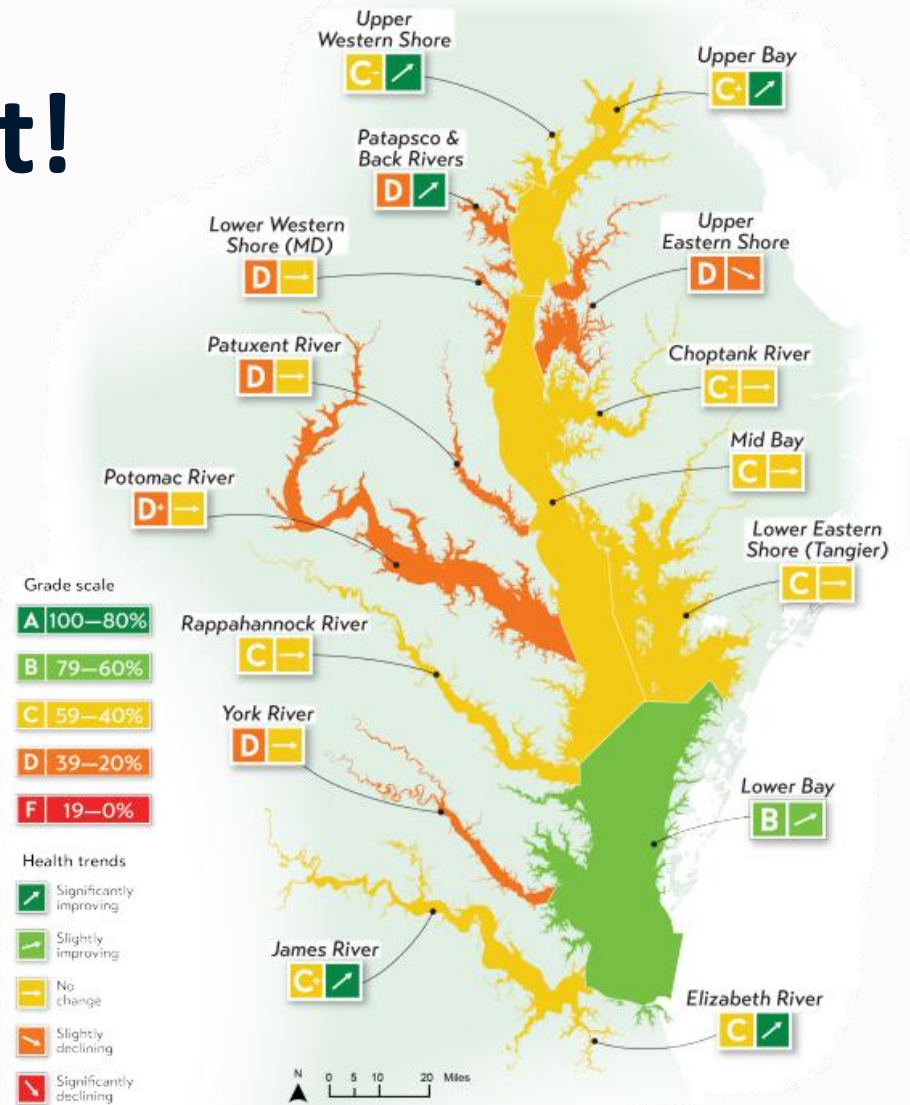
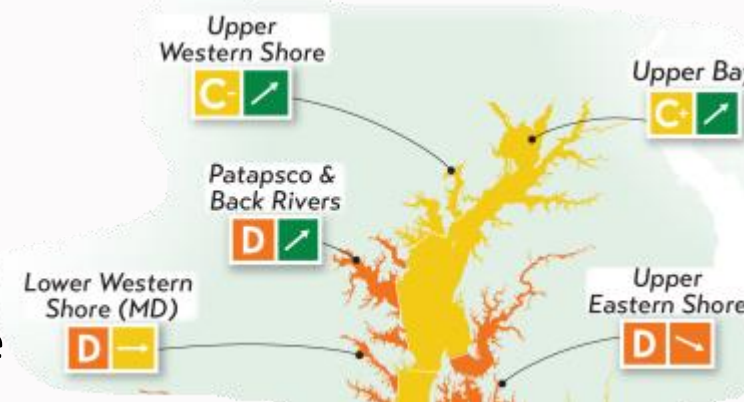


# Long-term Improvement!

## Chesapeake Bay Report Card

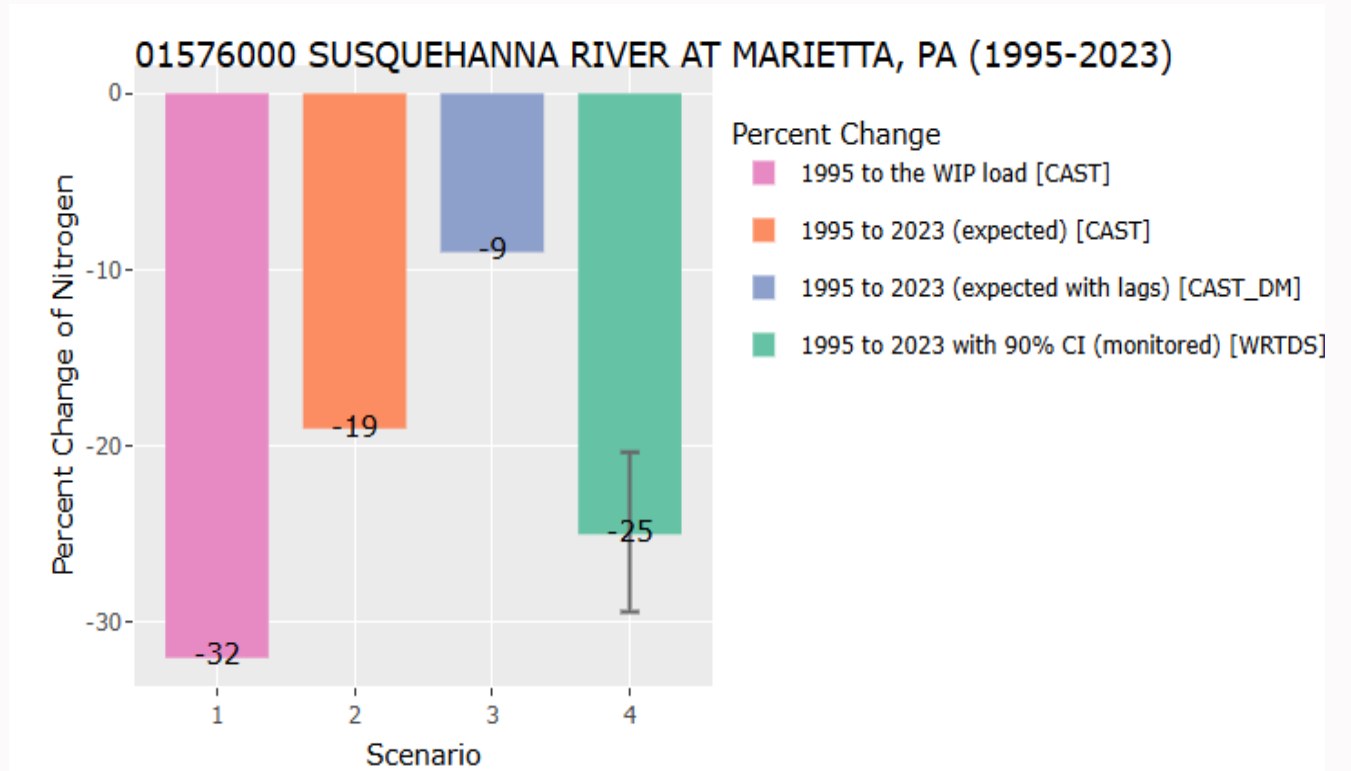
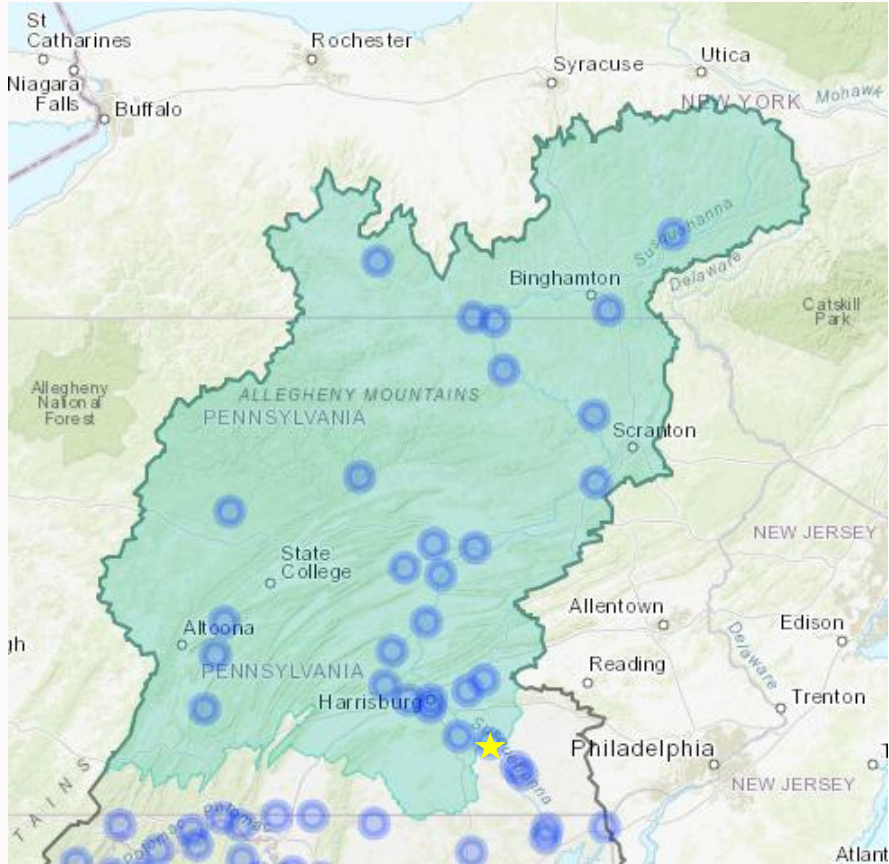
There are five ecological indicators, four economic factors, and three societal indicators.

Overall, Chesapeake Bay scored 50%, C, in 2024. This is a 5-point decrease from last year. However, Bay health is still improving over time!





# Monitoring Total Nitrogen





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# Monitoring Total Nitrogen

## TOTAL NITROGEN

Trends and Change in Per Acre  
Flow-normalized Load:  
1985-2023

### EXPLANATION

#### NTN Site

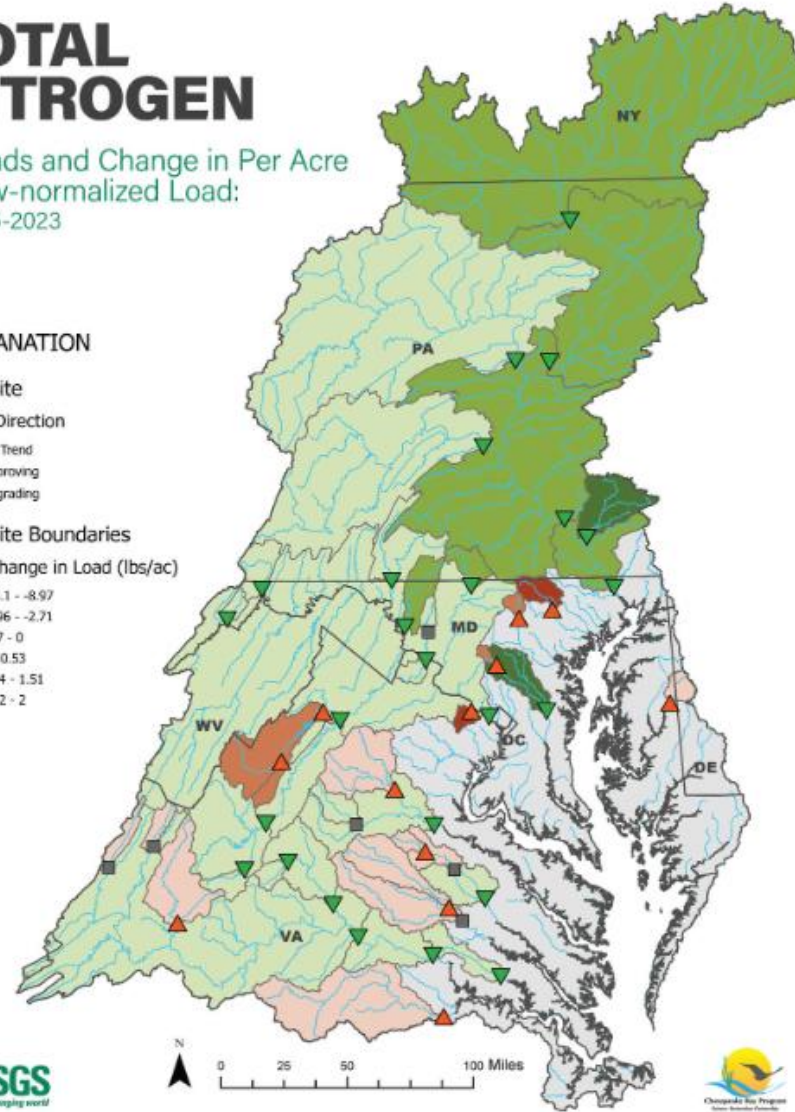
##### Trend Direction

- No Trend
- Improving
- Degrading

#### NTN Site Boundaries

##### Total Change in Load (lbs/ac)

- 15.1 - -8.97
- 8.96 - -2.71
- 2.7 - 0
- 0 - 0.53
- 0.54 - 1.51
- 1.52 - 2



USGS  
science for a changing world





# Agriculture Contributions

- 2024 Chesapeake Bay Agriculture Inspection Program (CBAIP)
  - 641,467 acres Core N and Core P (each)
  - 248,969 acres Supplemental Nutrient Management (combined)
  - 773 structural BMPs reverified
  - 2,274 structural BMPs verified for the first time
- 2024 Chesapeake Bay Engineers
  - 238 BMPs designed or designs reviewed
- 2024 Technical Assistance Program (Larson Design Group)
  - 6 projects in 5 counties awarded for engineering assistance
    - 3-8 BMPs designed/per project



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# CBAIP Enforcement Update

## 2024 Chesapeake Bay Agriculture Inspection Program Compliance and Enforcement

- 29 Referrals
- 30 Notice of Violations
- 10 Field Orders
- 20 Closed Cases

## 2025 Chesapeake Bay Agriculture Inspection Program Compliance and Enforcement

- 56 Referrals (1 Withdrawn)
- 55 Notice of Violations
- 15 Field Orders
- 4 Petitions to Enforce
- 53 Closed Cases

# PA Clean Water Gathering

- On October 11, 2023, DEP's Bureau of Watershed Restoration and Nonpoint Source Management (BWRNSM) hosted the first Clean Water Gathering of State Program Action Leaders and Countywide Action Planning (CAP) leaders.
- Over 80 partners, including Phase 3 WIP state program and county CAP action leaders and other federal and local partners, came together for the first time to celebrate successes and discuss high level needs, issues and challenges to continued progress to cleaning up local waterways in PA's Chesapeake Bay watershed.





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# Progress Teams

*“Moving from problem solving and strategizing to action.”*

Since January 2024, over 60 participants have contributed nearly 1,000 people hours across three Clean Water Progress Teams to address priority action area challenges generated at the inaugural October 2023 Clean Water Gathering.

The priority action area challenges identified that slow down progress toward cleaner waters included:

- **Technical and Administrative Assistance**
- **Staff Building/Staff Retention**
- **Funding and Multi-Grant Coordination**

Each Progress Team identified 5 top challenge areas, and collectively created 34 unique Success Strategies to address each priority.

# January 2025 Clean Water Gathering



Attendees listen to DEP Deputy Secretary Jill Whitcomb's opening remarks.

Over 100 attendees gathered at the second Clean Water Gathering held on January 23, 2025, to share and respond to presented Strategies for Success that move clean water projects forward. This event facilitated connection and action among multiple state program and local county action leaders, policymakers, and other key stakeholders.

The 25 actionable Strategies for Success are aimed at accelerating Pennsylvania's Phase 3 Watershed Implementation Plan (WIP) and Countywide Action Plan (CAP) nutrient pollution reduction goals benefitting local water quality throughout Pennsylvania's portion of the Chesapeake Bay watershed.

This multi-level, collaborative approach is needed to sustain the momentum driving PA's clean water progress.

# January 2025 Clean Water Gathering

State action leaders spoke to the audience and highlighted recommendations that resonated with their organization and mission.

These individuals communicated their commitment to support multiple recommended strategies. This included supporting dedicated funding efforts with flexible funding models and supporting and expanding the conservation workforce.



Environmental Protection  
Secretary Jessica Shirley



Conservation and Natural  
Resources  
Secretary Cindy Adams Dunn



Agriculture Secretary  
Russell Redding



State Senator Scott Martin



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# January 2025 Clean Water Gathering

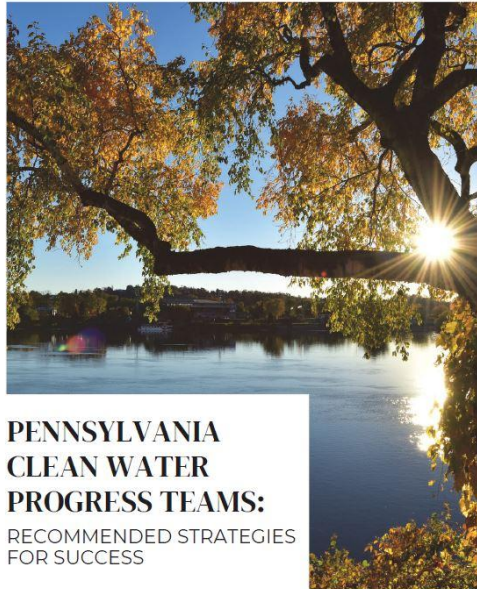
An expo format for sharing detailed information and exchanging ideas during the second half of the event allowed attendees to network, share, and commit to actions advancing the recommendations. All 25 Strategies for Success received commitments from the many valuable partners in the room.



# Strategies for Success

Three collaborative and diverse Clean Water Progress Teams met throughout 2024 to produce a set of actionable, recommended strategies addressing priority action area challenges. These were streamlined to create 25 Strategies for Success. The strategies were organized under six thematic groupings:

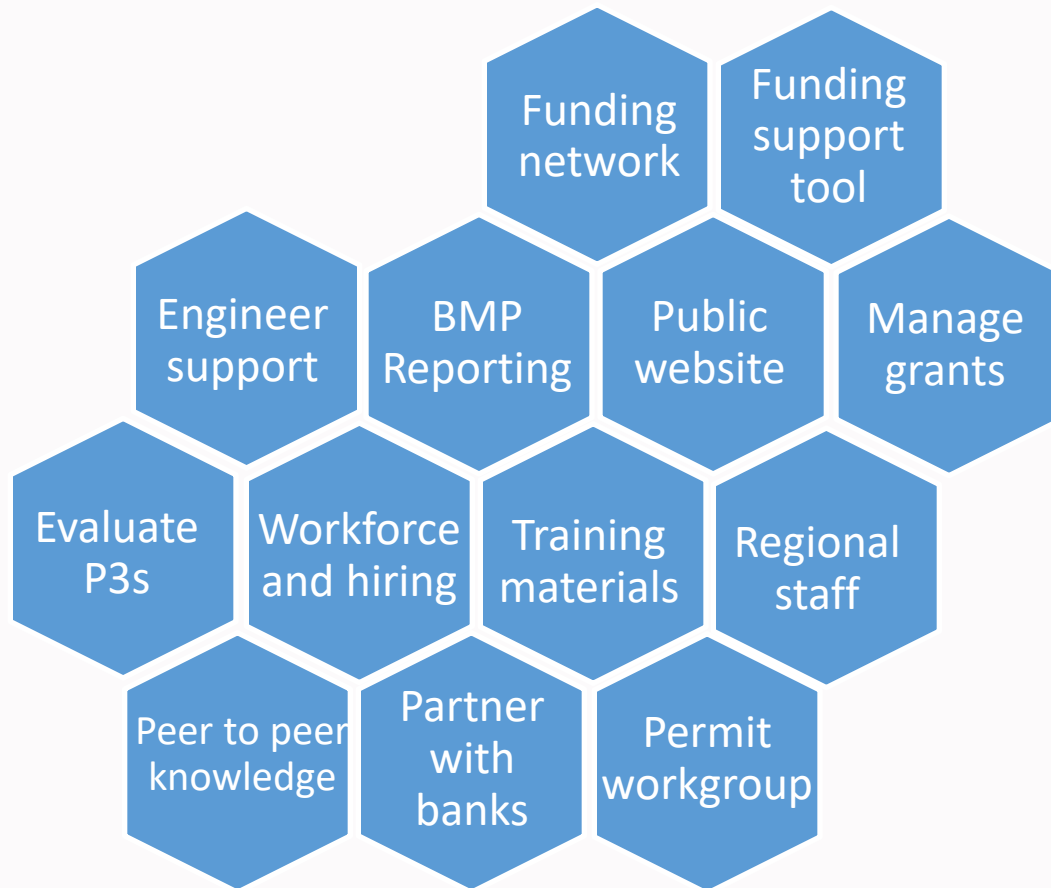
- 1. Digital Tools**
- 2. Streamline Best Management Practices**
- 3. Research & Improvement**
- 4. Advocacy for Funding**
- 5. Networking & Collaboration**
- 6. Leadership Development**



A view of the document listing the Clean Water Progress Teams' 25 Strategies for Success.



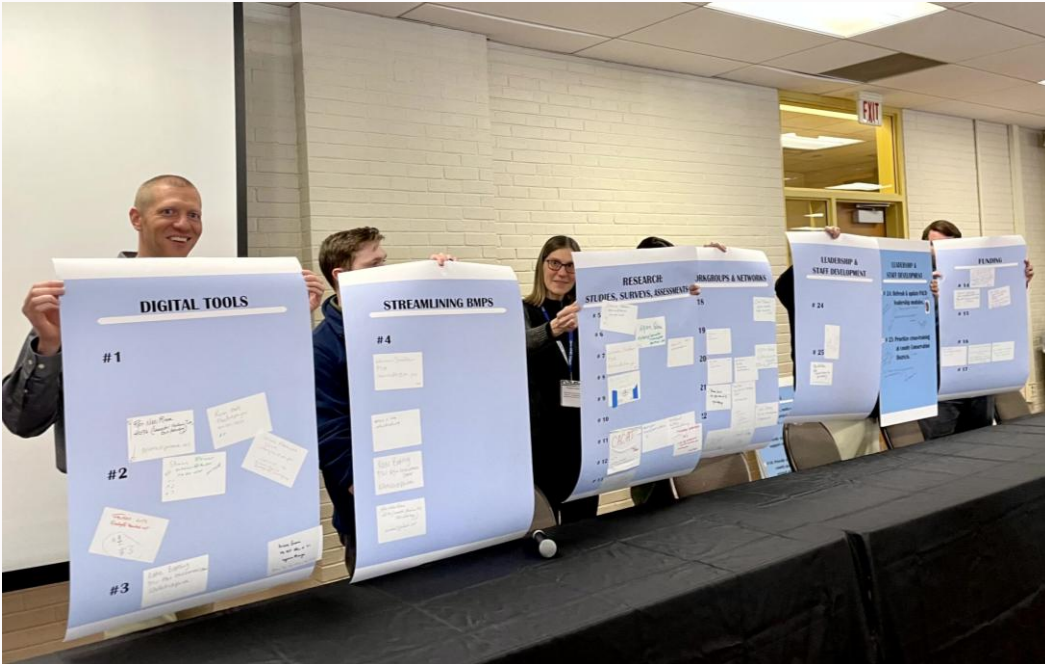
# Clean Water Action Teams



The Clean Water Action Teams advancing the 25 recommended Success Strategies presented at the January 2025 Clean Water Gathering.

The Success Strategies address barriers to clean water project implementation identified by federal, state and local action leaders as well as non-profit and private sector conservation partners.

# Clean Water Action Teams Structure and Update



- Facilitated by DEP staff.
- Committed Action Leaders identified at the January 2025 Clean Water Gathering.
- Active participants from the Progress Teams that developed the Success Strategies presented at the January 2025 Clean Water Gathering have chosen to partner with committed team members.
- Action Teams will meet quarterly to discuss action.
- A quarterly update will be shared to communicate progress.



# Clean Water Action Teams Momentum

- The Commonwealth Office of Digital Experience (CODE PA) is enacting a long-term vision for grant application and management across the state.
- DEP's Kate Beats and Labor & Industry's Crystal Houser have co-presented at the PA Workforce Development Association.
- State agency grant funders and regional conservation partner staff have begun meeting to share knowledge.
- The PA Agricultural Conservation Education Collaborative has begun to meet to share trainings.



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# Strategies for Success Workforce Development

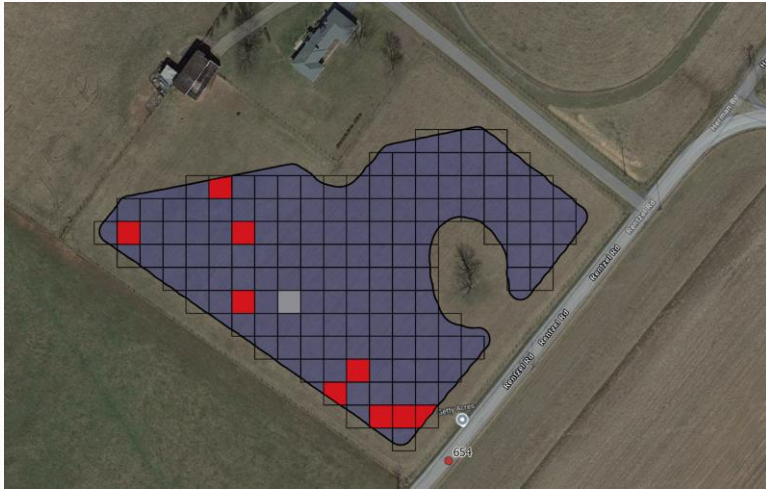
- Recommendation 6 – Conduct a gap assessment of engineering providers to determine areas of improvement
- Recommendation 8 – Analyze environmental workforce
- Recommendation 9 – Analyze environmental job advertisements
- Recommendation 10 – Analyze hiring practices at the organizational level
- Recommendation 12 – Survey counties to find what kind of regional staff would be most helpful
- Recommendation 19 – Create new regionalized county conservation staff positions
- Recommendation 23 – Expand network of engineers capable of working in the field of conservation and agricultural engineering



# Remote Sensing of BMPs

On April 17, 2025, PA DEP received approval from the Chesapeake Bay Program for a new remote sensing methodology to verify conservation tillage BMPs, opening previously closed doors for PA and other Bay jurisdictions. Benefits of this project include:

- Creates time and cost efficiency for the historically resource-intensive process of verifying conservation tillage BMPs through roadside surveys.
- Yields greater spatial and temporal accuracy for tracking conservation tillage BMPs over time, which are responsible for **almost three-quarters of total sediment reductions** within Pennsylvania's portion of the Chesapeake Bay Watershed.
- Enhances Pennsylvania's progress with consistency and coverage over the state's entire portion of watershed.
- Provides guidance for all jurisdictions of the Chesapeake Bay Watershed seeking to establish remote sensing verification procedures.



**Human observer classifies entire field as “>60% crop residue cover”**



**Satellite observer classifies field with finer spatial resolution**

# Newly Released AMD Report

## Nutrient Reductions as Co-Benefit of Acid Mine Drainage (AMD) Treatment: Quantifying Nutrient Load Reductions for Restored Stream Segments in AMD-impacted Watersheds

Benjamin Hayes<sup>1</sup>, Weixing Zhu<sup>2</sup>, R. John Dawes<sup>3</sup>, Charles A. Cravotta<sup>4</sup>, Robert Hughes<sup>5</sup>, Gregory Moyer<sup>6</sup>, Travis Tasker<sup>7</sup>, James Shallenberger<sup>8</sup>, Michael A. Hewitt<sup>9</sup> and John Dawes<sup>10</sup>

<sup>1</sup>Bucknell University, <sup>2</sup>SUNY Binghamton, <sup>3</sup>Consultant, Foundation for Pennsylvania Watersheds, <sup>4</sup>Geochemical Consulting, <sup>5</sup>Eastern Pennsylvania Coalition for Abandoned Mine Reclamation, <sup>6</sup>Mansfield University PA, <sup>7</sup>Saint Francis University, <sup>8</sup>Susquehanna River Basin Commission, <sup>9</sup>Eastern Pennsylvania Coalition for Abandoned Mine Reclamation, and <sup>10</sup>The Chesapeake Commons



**STAC Technical Review  
April 2025**

- PA DEP submitted an Acid Mine Drainage (AMD) workshop proposal to the Chesapeake Bay Program Scientific and Technical Advisory Committee (STAC) in 2022. The resulting STAC technical report was released in April 2025.
- Recognition within the Chesapeake Bay Program of the positive benefits of AMD remediation on watershed restoration is an important step toward understanding and connecting AMD remediation with overall water and habitat restoration.
- The STAC report mentions concern that phosphorus could increase following AMD remediation, which has not been substantiated in the monitoring of the West Branch of the Susquehanna River where the majority of this restoration work is occurring.

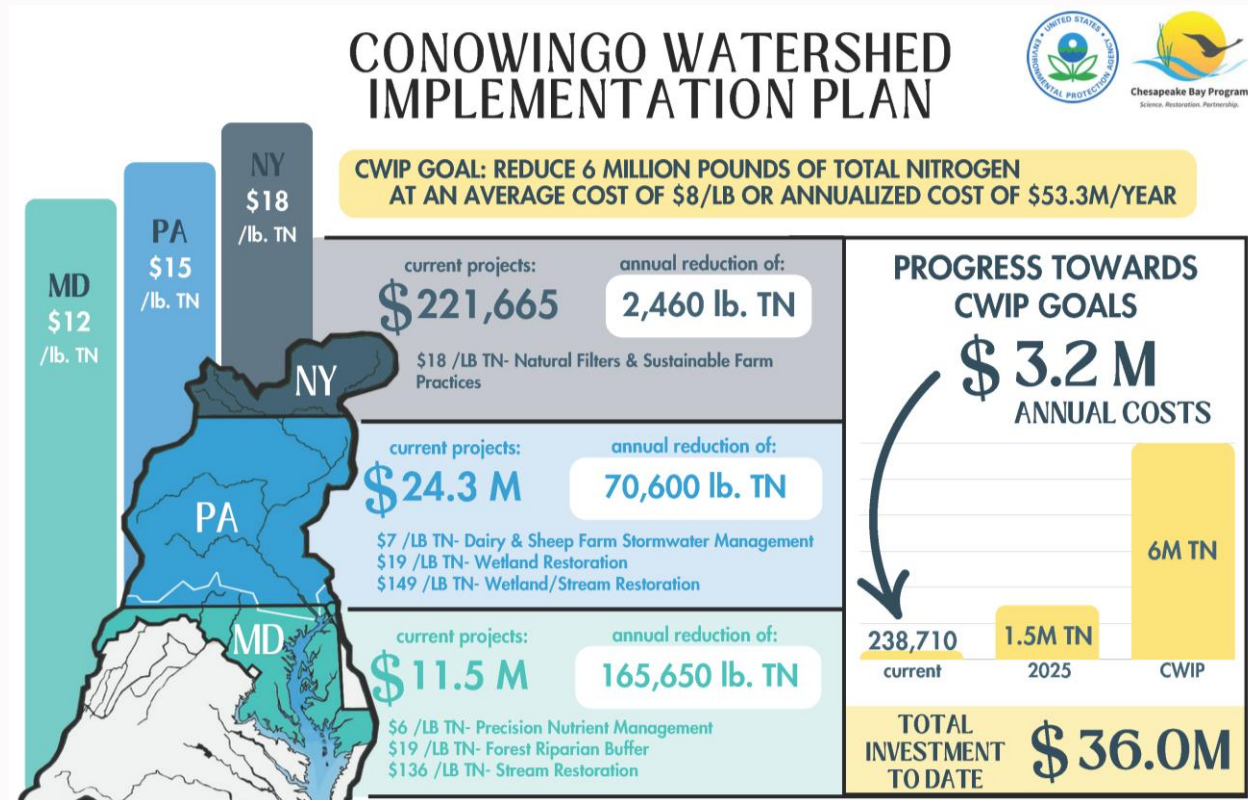
# Innovative Contributions to Conowingo WIP Progress

## Multi-Jurisdictional Conowingo WIP

PA DEP collaborates with a range of partners to drive CWIP progress with MDE and NY DEC.

CWIP focuses on strategically filling gaps in existing watershed restoration efforts by pushing innovative approaches, such as Pennsylvania's pay-for-performance funding model.

The Clean Water Procurement Program (CWPP) is administered by PENNVEST and has been allocated over \$26 million to date, going toward CWIP progress.



PENNVEST will announce the third round of CWPP selected applicants in Summer 2025.

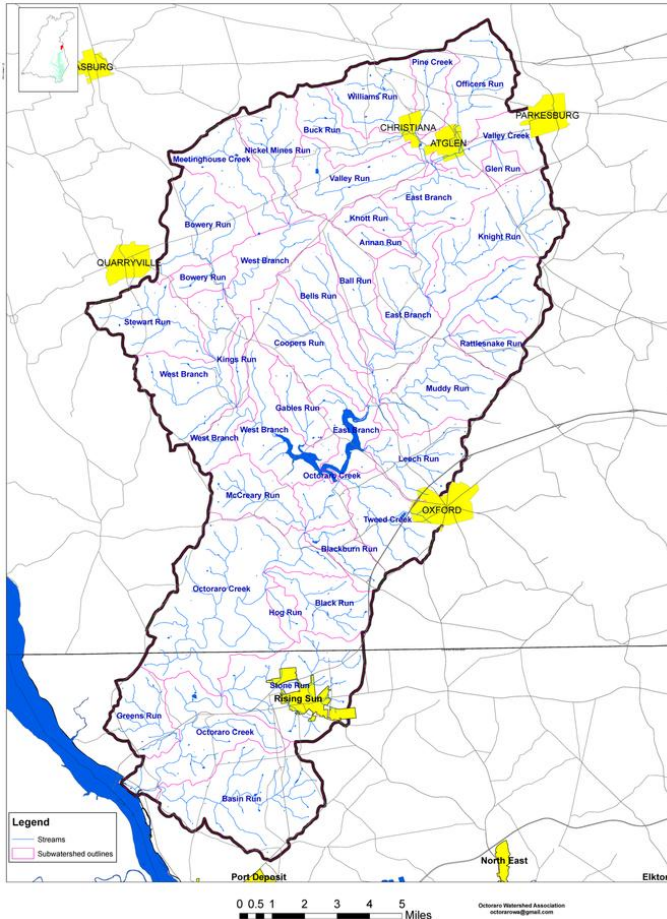
# New Octoraro Watershed Restoration Coordinator

## Targeted Watershed Implementation Progress

Since 2024, PA DEP directed federal Local Government Implementation (LGI) funds to Chester County Conservation District (CCD) through the CAP block grant structure to implement CWIP projects in their share of the Octoraro Watershed.

In partnership with Chester CCD, LGI funds will support a coordinator position for three years to provide technical and grant assistance within the Octoraro Watershed.

- Chester County approved the position in November 2024, which was filled and began work in May 2025.
- The Coordinator will work across counties in PA and MD through project implementation, project and program coordination, and partnership building.





# Get In Touch

**Kate Bresaw**  
**Environmental Program Manager**  
**Nonpoint Source Management**  
**400 Market Street**  
**Harrisburg, PA 17101**

...

**[kbresaw@pa.gov](mailto:kbresaw@pa.gov)**

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