



pennsylvania
DEPARTMENT OF ENVIRONMENTAL
PROTECTION

Bureau of Watershed Restoration
and Nonpoint Source Management



Pennsylvania's Progress: Local Action and Local Waters

Chesapeake Bay Program Partnership
Citizens Advisory Committee
May 24, 2023

Phase 3 Watershed Implementation Plan

Agenda

- **What Success Looks Like**
- How We're Working Together To Succeed
- Where We Are Today
- What to Expect in the Future

Chesapeake Bay Watershed Agreement

Water Quality Outcome – USGS [Press Release](#)

- Trends in nitrogen indicate **improving conditions** at Potomac and Susquehanna Rivers
- Trends in phosphorus indicate **improving conditions** at Susquehanna River and **no change** at Potomac River
- Trends in sediment indicate **improving conditions** at Susquehanna River and **no change** at Potomac River

Chesapeake Bay Watershed Agreement

Water Quality Outcome – Chesapeake Bay Program [Press Release](#)

Smaller than Average Dead Zone in 2022

“This year’s dead zone to be the 10th smallest observed since 1985.”

“The U.S. Geological Survey reported that water year 2022 (measured from October 1, 2021—September 30, 2022) had river flows ... below the long-term water-year average.”

What Success Looks Like



Before



After

Ephrata Cattle Farm, Lancaster County – Project funded by a DEP Countywide Action Plan (CAP) Implementation Grant Fund

- Improved a 0.16-acre heavy use area and planted a 6-acre streamside forest buffer
- Completed BMPs identified in the Lancaster County CAP
- Expected reductions:
 - 84.7 lbs/year of Nitrogen
 - 3.6 lbs/year of Phosphorus
 - 741.35 lbs/year of Sediment

What Success Looks Like



Barnyard Project, Columbia County – Project Funded by DEP CAP Implementation Grant

- Relocated calf housing facilities 600 feet away from the east branch of Briar Creek
- Roofed concrete facility will eliminate soil erosion from livestock traffic and provide a healthier, cleaner environment for young calves
- Landowner is a professional engineer, and provided match to the grant by designing and certifying the structure.

What Success Looks Like



North Branch Little Aughwick Creek Stream Restoration, Huntingdon County

- The North Branch Little Aughwick Creek is a high-quality, cold-water fishery and a popular trout fishing stream.
- Project included 1,030 feet of in-stream erosion control and fish habitat structures; 600 feet of new streambank fencing; one new off-stream water system; and a 3-acre riparian forest buffer consisting of 450 native trees and shrubs.
- Partners include: Huntingdon County Conservation District, U.S. Fish and Wildlife Service, and PA DEP

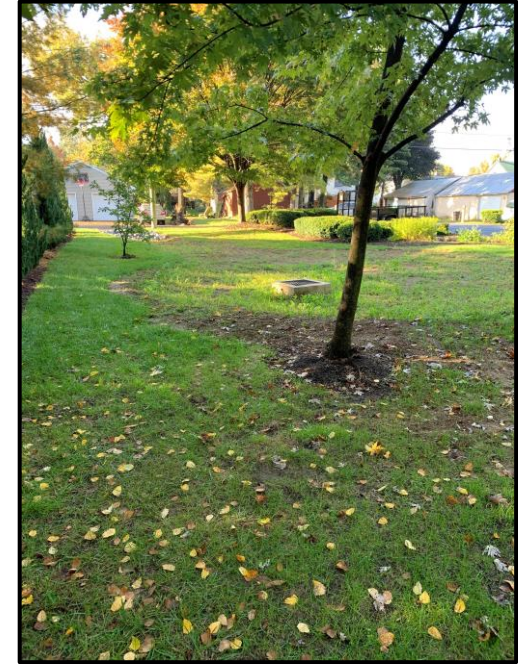
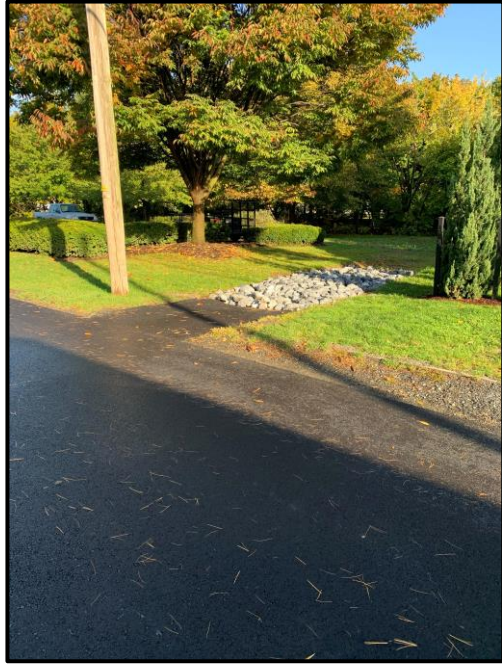
What Success Looks Like



Crooked Creek Tributary Multifunctional Buffer Project, Huntingdon County

- 15-acre project included the planting of more than 2,200 trees and shrubs along an unnamed tributary to Crooked Creek
- Planting selection includes multiple fruit and nut bearing species such as apple, pear, pawpaw, persimmon, blueberry, chestnut, hazelnut, and more
- Project funded by 2019-2022 Multifunctional Riparian Buffer Sub-Grant Program through PACD and DCNR

What Success Looks Like



North Lane Rain Garden – Lancaster County

- The project is a combination of a rain garden and vegetated swale which will take excess water from North Lane, filter it while reducing the ponding on the roadway, and then discharging the clean water to nearby Lititz Run.
- Funded through the Lancaster Clean Water Fund

What Success Looks Like

“Fish farms aren’t the first thing that comes to mind when you think of agriculture and the Bay, but we used a CAP grant to cut our effluent by about 95% and keep about eight tons of sediment and pollution out of Freeman Run each year.”

— *John Harmon, Potter County Anglers Club*



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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**

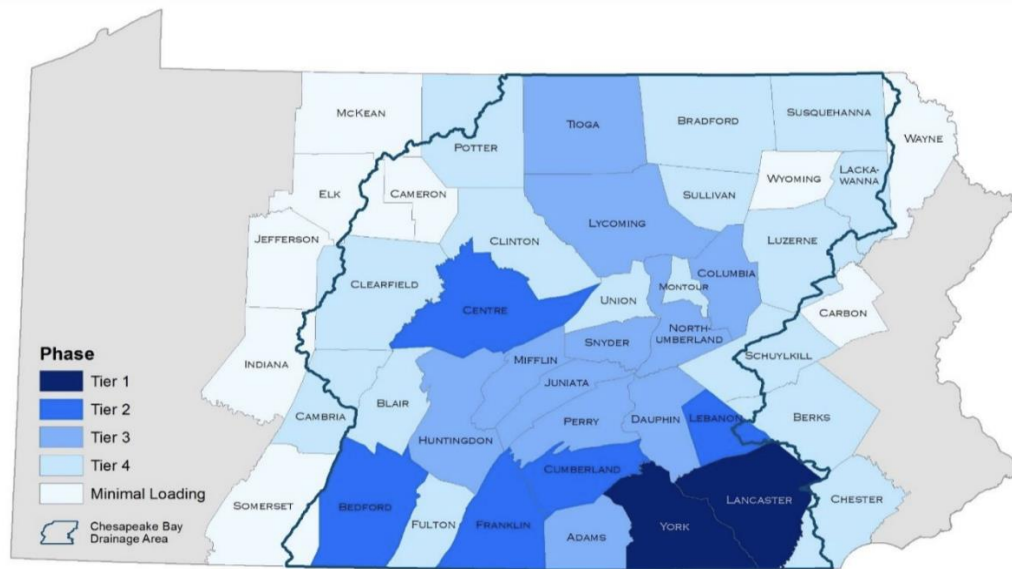
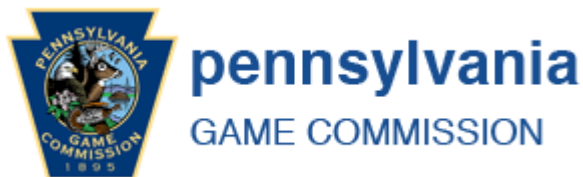


**Monitoring
& Data Management**



How We're Working Together to Succeed

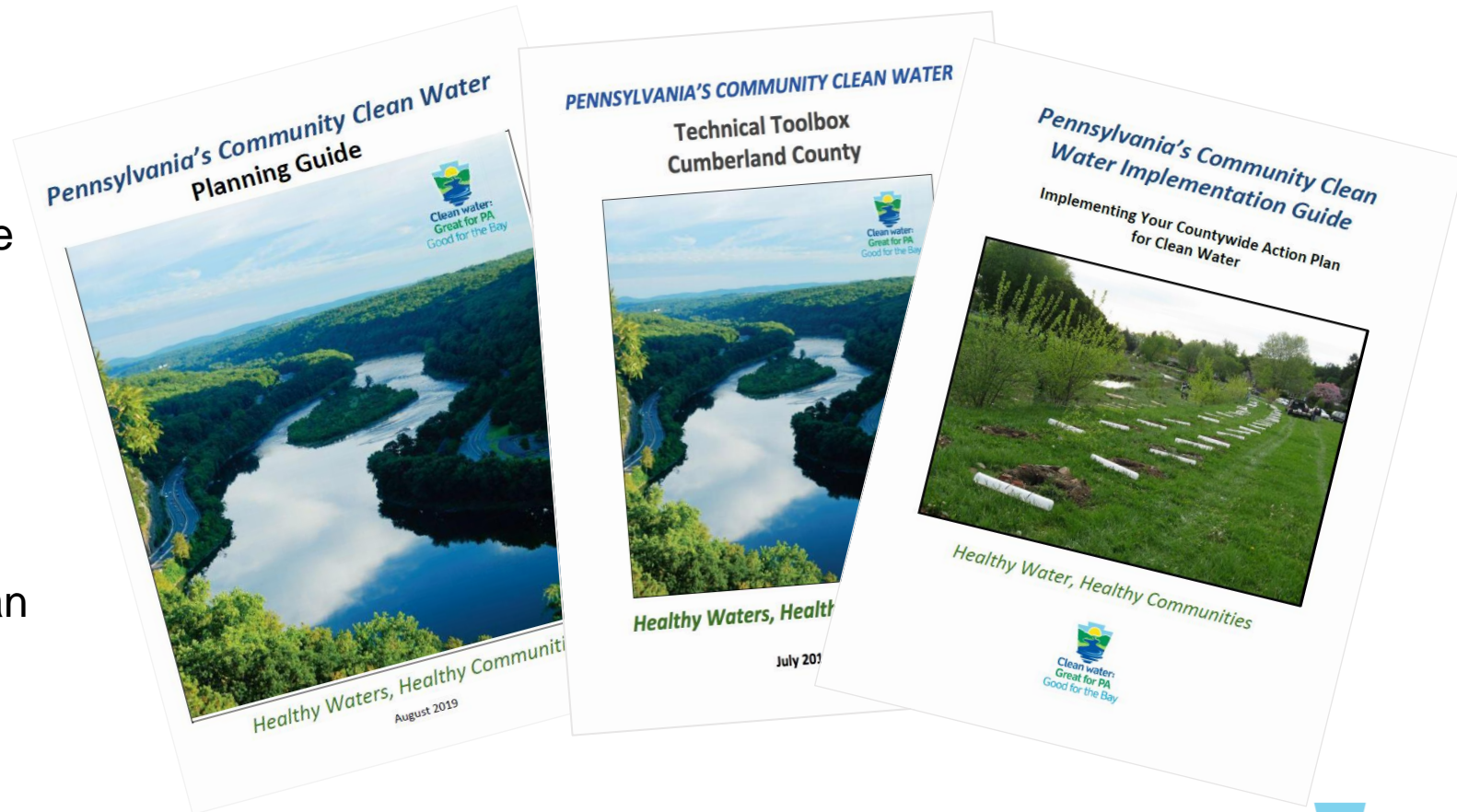
- **40+** Bureau of Watershed Restoration and Nonpoint Source Management staff covering statewide and Chesapeake Bay nonpoint source management and watershed restoration efforts
- **34** counties with **30** Countywide Action Plans
- **500+** people on countywide implementation teams with **18** Clean Water Coordinators
- **20+** public, private, and nonprofit entities serving as Statewide Action Leaders supporting Phase 3 WIP Implementation and our local CAP Implementation Teams
- **37+** data reporting programs and entities – Federal, State, Local, and Non-Profit



Counties are the Keys to Clean Water

Countywide Action Plans (CAPs) are key to Pennsylvania's clean water strategy.

- DEP worked with 34 counties in the Bay watershed to complete CAPs from 2019 to 2021.
- All 34 counties have developed CAPs.
- County teams and partners are implementing BMPs and other clean water efforts in support of cleaner local waters and their CAPs.



How We're Working Together to Succeed

Rapid Stream De-Listing Strategies – New Partnerships using Data and Mapping Tools

The rapid stream delisting strategy aims to delist 30 streams from Pennsylvania's list of agriculturally-impaired waterways by the year 2030.

By the end of 2022:

- 42 high-priority projects in the Central PA region were either complete, underway, or moving forward
- 31 high-priority projects in Lancaster County were either complete, underway, or moving forward

Counties involved: Centre, Clinton, Huntingdon, Lancaster, Lycoming, Union and Snyder



How We're Working Together to Succeed

PA in Balance 2022: December 12-14, Lancaster, PA

- Over 120 attendees
- Exploring innovations in developing highly functional systems to accelerate efficient, effective, and high impact conservation implementation on Pennsylvania farms



How We're Working Together to Succeed

PA in Balance 2022: Summary Recommendations

1. **Streamlining**

Streamline the conservation funding delivery system.

2. **Workforce Development**

Invest in workforce development and training to position Pennsylvania as the innovation hub for agricultural and natural resources conservation.

3. **Local Coordination**

Support local partnership and implementation coordination to ensure resources are deployed efficiently and tailored to local needs.

4. **Engage Corporations**

Extend the agricultural and conservation partnership network to businesses and corporations.

5. **Climate-Smart Commodities**

Position Pennsylvania partnerships for climate-smart commodities as centers for innovation and market development.



Clean water:
Great for PA
Good for the Bay

How We're Working Together to Succeed

Center for Agricultural Conservation Assistance Training

- A partnership of Pennsylvania's NRCS Office, State Conservation Commission (SCC), and Penn State Extension
- Funded through the SCC Agriculture Conservation Assistance Program (ACAP)
- Goal is to increase capacity to deliver conservation technical assistance and recruit and train tomorrow's conservation professionals

NRCS, SCC, DEP, Penn State and Delaware Valley Universities working together

- Develop core competencies through college-level courses, continuing education and training
- On-the-job training and Post-Employment Training (NRCS and PSU Retirement Cadre)



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How We're Working Together to Succeed

“If it weren't for the support of PA DEP, the Conewago Creek Project would have just been another great project that didn't get built.”

– *Steven Letavic, Township Manager, Londonberry PA*



How We're Working Together to Succeed

“Municipal leaders should look to their county and state resources. We’ve wanted to do this project for a long time and our Conservation District alerted me to the opportunity to finally fund it and they did a lot of the [CAP] grant paperwork. DCNR helped us choose the trees. We couldn’t have done this without their help.”

– *Larry Barrick, Township Manager, Dickinson PA*



How We're Working Together to Succeed

“The stream is a classroom! We had students walk the stream with us before, during, and after the project. One of them even changed their major! If you're a teacher and you want to do something like this, network with the conservation specialists and involve the kids. They are citizens and you want to show them how to use their resources for the future.”

– *Kerri Barnes, Greencastle-Antrim School District, Franklin County*

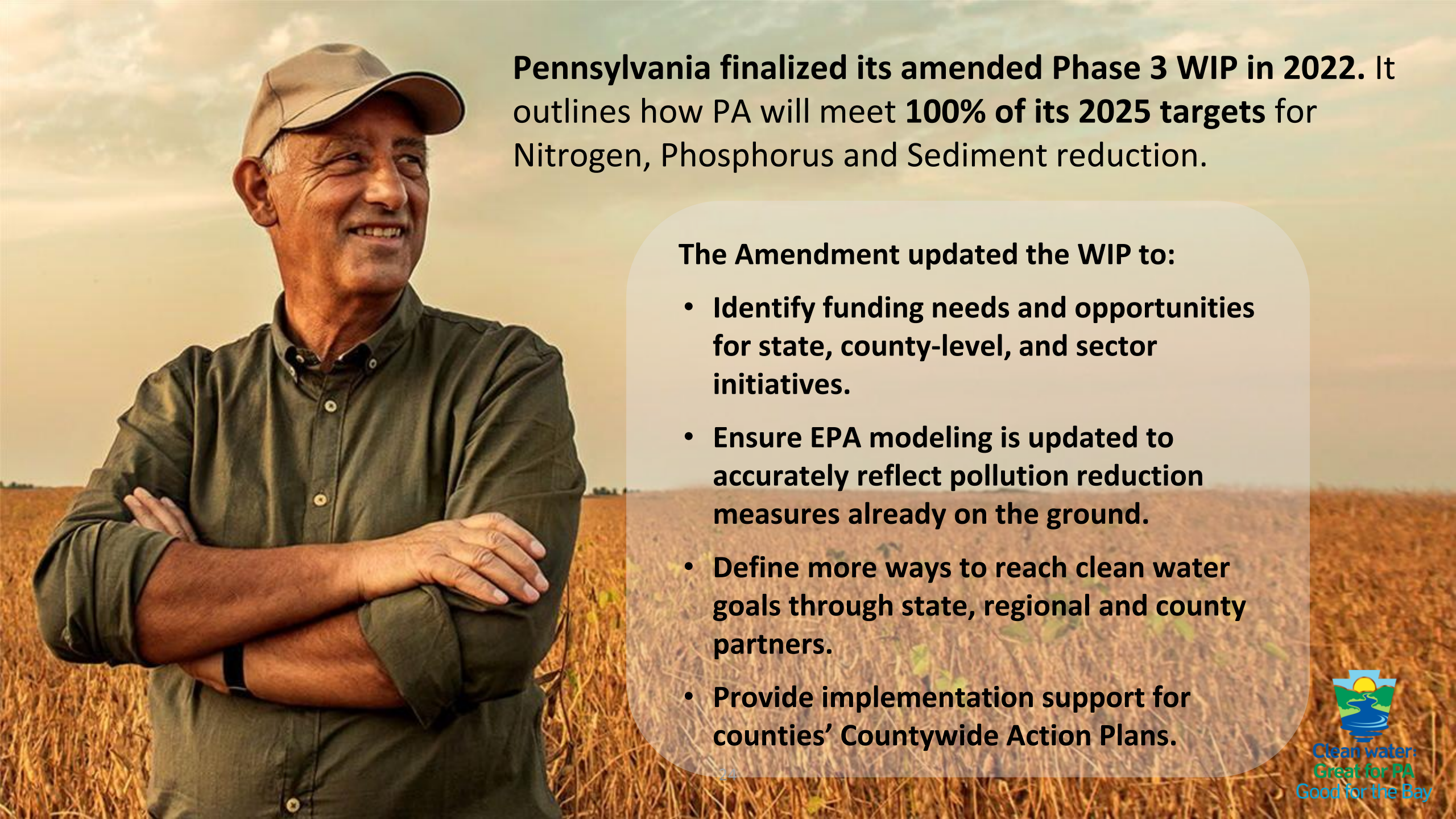


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A man wearing a tan baseball cap and a green button-down shirt stands in a field of tall, golden-brown grass. He has his arms crossed and is smiling, looking off to the side. The background is a soft-focus landscape under a cloudy sky.

Pennsylvania finalized its amended Phase 3 WIP in 2022. It outlines how PA will meet 100% of its 2025 targets for Nitrogen, Phosphorus and Sediment reduction.

The Amendment updated 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 counties' Countywide Action Plans.**



**Clean water:
Great for PA
Good for the Bay**

County CAP and State WIP Progress

- **County Partners** continue to accelerate the implementation of their CAPs. Tier 2 counties submitted state Programmatic Recommendations and 2-year milestones in 2022. Pilot and Tier 3-4 counties will submit in 2023.
- **State WIP Action Leaders** continue to respond to county Programmatic Recommendations, and updated their two-year WIP Milestone Plans and Goals (2022-2023).
- **Chesapeake Bay Watershed Restoration Division** continues to coordinate CAP and WIP reporting efforts, provide updates to counties on state Programmatic Recommendations and incorporated progress into amended Phase 3 WIP.

Where We Are Today

“Our field inspectors report it is incredibly satisfying to see that the manure storages, and other practices are still functioning and that the landowner is still interested in managing their farm/soils for water quality.”

—Susan Richards, Capital RC&D, Franklin, Adams, and Cumberland County



Where We Are Today

“The CAP process and the CAP Coordinator have given us a forum to negotiate more with DEP, a better way of sharing our suggestions and frustrations with DEP. They are much more responsive now about hearing from us, and making corrections and adjustments in ways that are constructive for us. The CAP process is a good vehicle for us to get our messages up to the right people in DEP.”



***—Julie Cheyney, Director, Lebanon County Planning
Department***

Accelerate Implementation through Funding

Pennsylvania's Investment in Water Quality: The 2022 Phase 3 WIP update includes over \$700M in new funding. The money will be used to implement projects that improve the health of streams and rivers, preserve topsoil and farm viability, lessen flooding in fields and neighborhoods, and support outdoor recreation and tourism and their considerable related economies.

Where is the \$700M+ coming from?

- **General Fund**
 - \$10 million to Conservation District Fund
- **Oil & Gas Lease Fund**
 - \$56 million for State Park & State Forest Infrastructure
- **American Rescue Plan**
 - \$100 million for State Parks & Outdoor Recreation Program
 - \$320 million for water and sewer projects
 - \$220 million for Clean Streams Fund

Introducing the Clean Streams Fund

- \$154 million to Agricultural Conservation Assistance Program (ACAP)
- \$22 million to Clean Water Procurement Program
- \$22 million to Nutrient Management Fund
- \$8.8 million to Act 167 planning
- \$8.8 million to Keystone Tree Account
- \$4.4 million to Abandoned Mine Drainage

Accelerate Implementation through Funding

TOTAL FY2023 Federal Chesapeake Bay Funding directed to DEP = \$13,632,707

- Chesapeake Bay Implementation Grant (CBIG) - \$2,015,700
 - Funds Program Administration, Chesapeake Bay Engineer Specialists / Assistants, Community Clean Water Coordinators, Water Quality Monitoring and TMDL Development
- Chesapeake Bay Regulatory Accountability Program (CBRAP) - \$3,411,446
 - Funds Permitting, Compliance and Enforcement personnel, Chesapeake Bay Technicians, Nutrient Management Technicians, WIP / CAP Support, BMP Verification, NPDES e-Reporting and PracticeKeeper program enhancements
- Local Government Implementation (LGI) Grant - \$1,190,544
 - Beginning in 2023, DEP will receive approximately \$1.2 million to administer LGI through our CAP Implementation Grant program.
 - NFWF has administered the LGI Grant for Pennsylvania in the last few years.
- EPA Most Effective Basin (MEB) Annual Appropriation - \$1,682,324
 - [NFWF Most Effective Basin Agriculture \(MEB Ag\)](#) will receive more than \$3.2 million to award to PA projects
- EPA Chesapeake Bay Infrastructure Investment and Jobs Act (IIJA) Most Effective Basin (MEB) - \$5,332,693

Accelerate Implementation through Funding

DEP Bureau of Watershed Restoration and Nonpoint Source Management (October 2022 to May 2023):

Nearly \$7 million in funds for CAP Implementation and CAP Coordinators in Tier 1 and 2 counties.

More than \$5 million for CAP Implementation and CAP Coordinators in Tier 3 & 4 counties

2022 Section 319 Nonpoint Source Management grant program - more than \$1 million was awarded to grantees in the Chesapeake Bay. All located in the Pilot and Tier 2 counties

2022 Growing Greener Plus grant program - more than \$19 million was awarded statewide.
More than \$10 million directed to projects in the Chesapeake Bay Watershed

Accelerate Implementation through Funding

\$12+ Million in CAP Block Grants Awarded for January – December 2023:

Grants to coordinate and implement CAP projects:

- Adams County CD: \$318,149
- Bedford County CD: \$392,424
- Bradford County CD: \$276,306
- Centre County Government: \$389,876
- Chester County CD: \$281,527
- Clinton County Commissioners: \$188,817
- Cumberland County Commissioners: \$570,360
- Franklin County CD: \$1,035,542
- Lackawanna County CD: \$225,162
- Lancaster County CD: \$3,066,264
- Lebanon County CD: \$451,234
- Lycoming County Commissioners: \$306,407
- Montour County CD: \$436,064 for Montour, Columbia, and Sullivan counties
- Snyder County CD: \$556,219 for Snyder and Union Counties.
- Fulton County CD: \$126,350 for coordination in Blair, Cambria, Fulton, and Huntingdon counties
- Tri-County Regional Planning Commission: \$1,036,915 for Dauphin, Perry, Juniata, and Mifflin counties
- York County Planning Commission: \$1,042,938

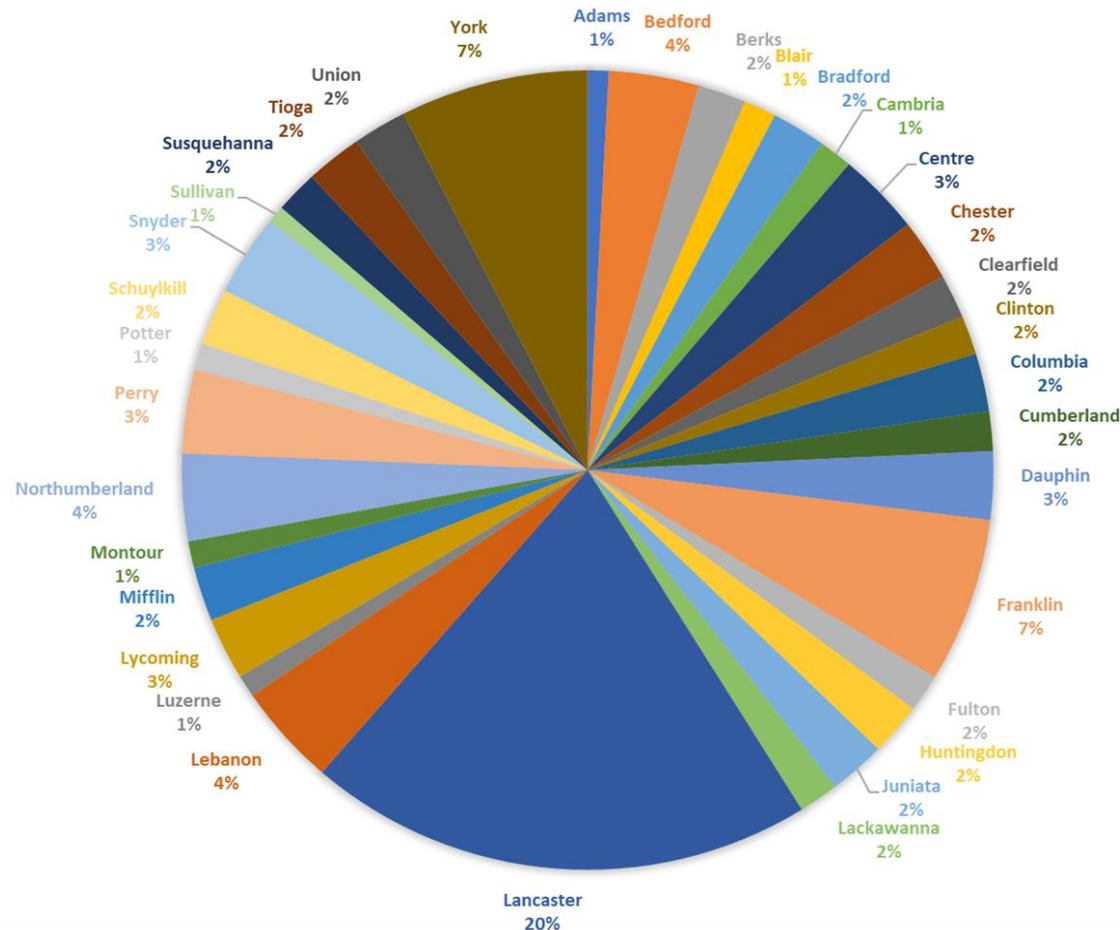
Grants to implement CAP projects:

- Blair County CD: \$95,706
- Berks County Planning Commission: \$104,511
- Cambria County CD: \$85,860
- Clearfield County CD \$117,404
- Fulton County CD: \$115,504
- Huntingdon County CD: \$175,445
- Luzerne CD: \$45,557
- Northumberland County CD: \$297,556
- Potter County CD: \$63,534
- Schuylkill CD: \$181,753
- Susquehanna County: \$129,535
- Tioga County CD: \$185,807

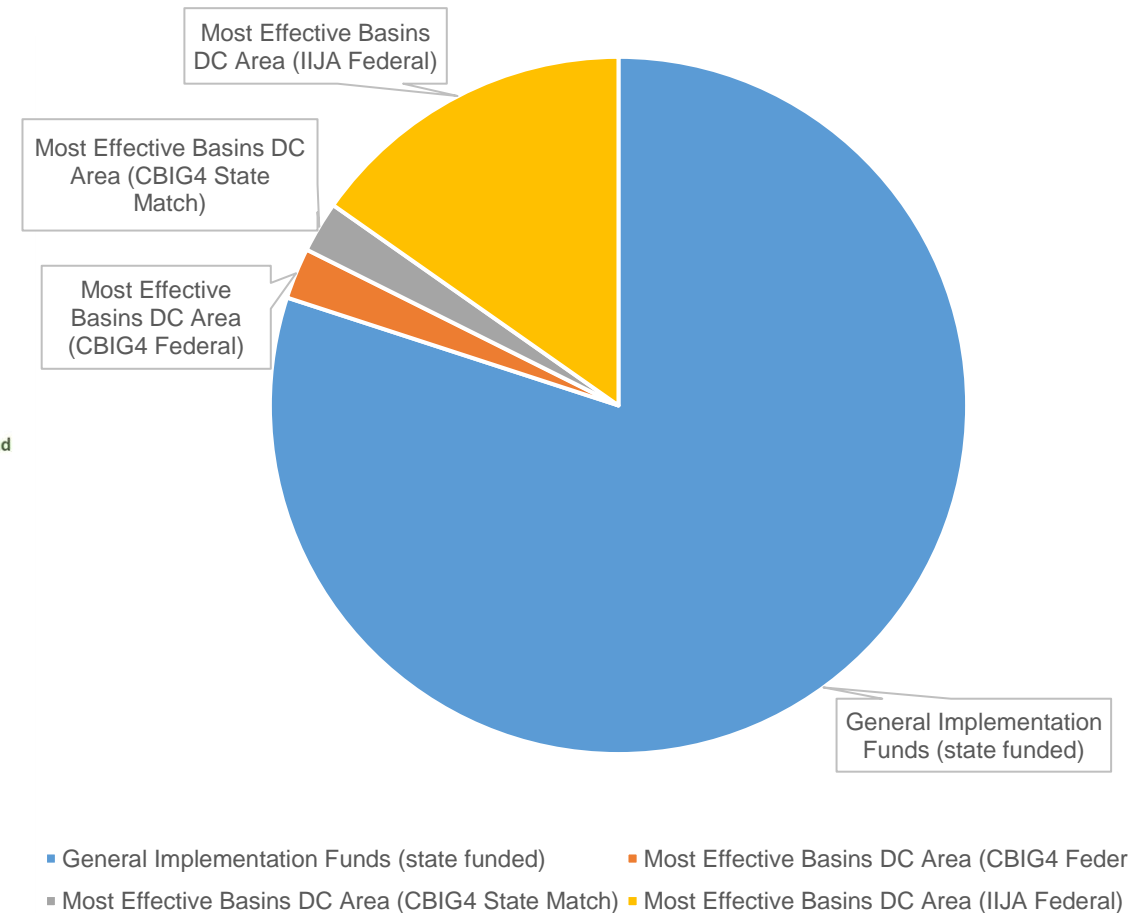


Supporting Local Action – 2023 Block Grant Funding

% Total Block Grant Funding By County



Implementation Funds By Source



- General Implementation Funds (state funded)
- Most Effective Basins DC Area (CBIG4 Federal)
- Most Effective Basins DC Area (CBIG4 State Match)
- Most Effective Basins DC Area (IIJA Federal)

Supporting Local Action – 2023 Block Grant Funding

- The Perry County Conservation District rents three 10-foot-wide John Deere 1590 no-till drills and one 6 foot wide Land Pride 606NT drill.
- Montour County Conservation District started a pollinator seed program to foster the conversion of turf grass and agricultural land into meadows.
- In the second year of their Advanced Nutrient Management Program, the Adams County Conservation District and Rosetree Consulting will exceed their goals for both Adaptive Nitrogen Management (5,000 acres) and Split Nitrogen Application (1,000 acres).

Supporting Local Action – Beyond 2023 Block Grant Funding

- Union County surpassed 10,000 acres of agriculture preservation in May of 2022.
- Cumberland County and the Alliance for the Chesapeake Bay launched the first training for the Cumberland County Branch of the Riparian Rangers Program. The program aims to ensure a higher tree survival rate by training volunteers to maintain plantings during the growing season.
- In Centre County, ClearWater Conservancy preserved two properties, totaling more than 170 acres with wetland and stream habitat.
- Tioga County Conservation District was provided funding from Shell Energy and has been working with Trout Unlimited, Northcentral Pennsylvania Conservancy, the Pennsylvania Fish and Boat Commission, PA DEP, and other local groups to secure streambanks and prevent sediment pollution.

Accelerate Implementation through Funding

“The pie is getting bigger. There are more federal and state dollars coming into the effort, and that’s great because corporate partners want to see the match for their contributions.”

*—Jenna Mitchell Beckett, Pennsylvania State
Director and Agriculture Program Director,
Alliance for Chesapeake Bay*



Accelerate Implementation through Funding

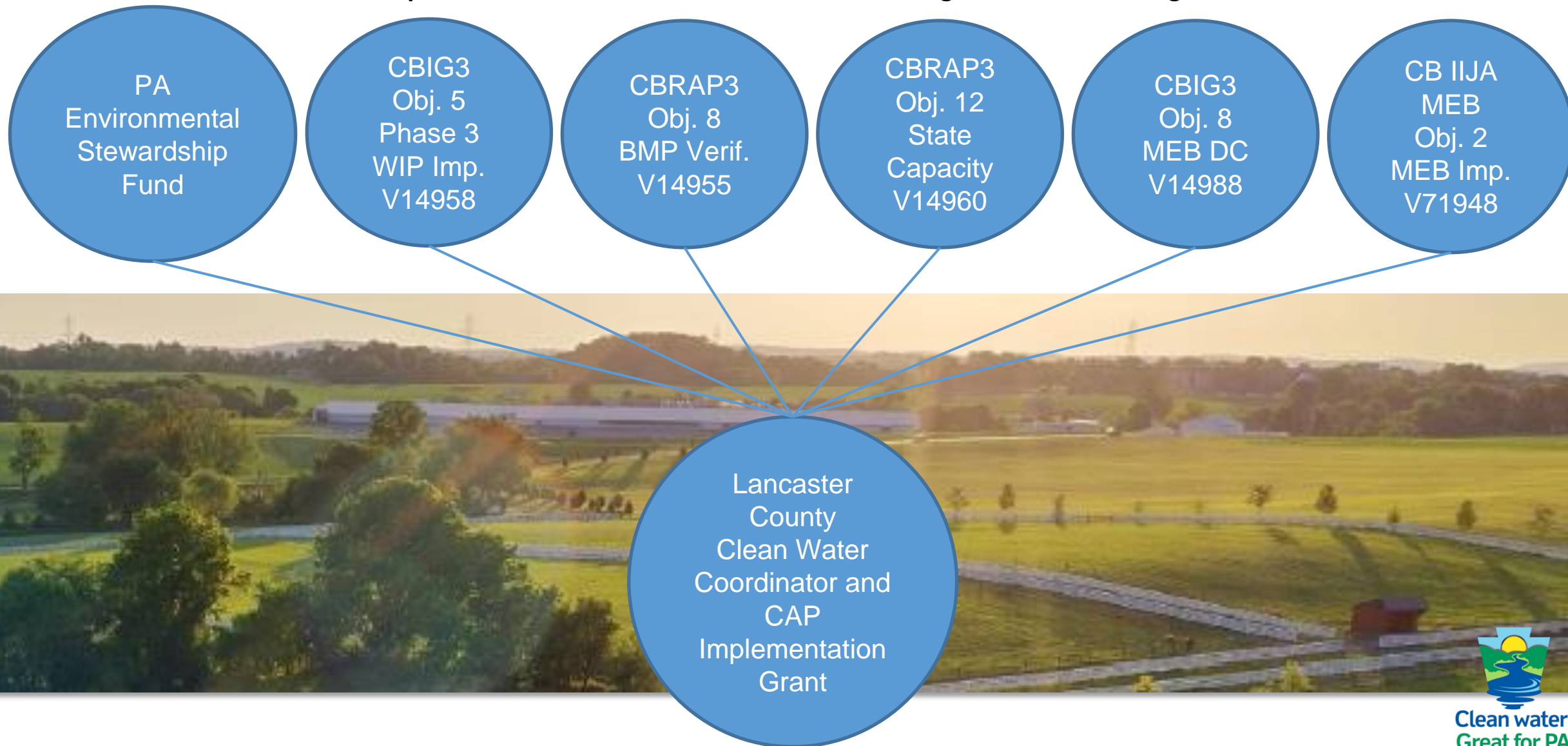
“We've definitely had success already with on-the-ground project implementation. The funding that DEP gave us for CAP implementation, the flexibility of those dollars has been extremely helpful, and we appreciate being able to get that to the projects on the ground quickly and be responsive to the local decision making.”

*— Allyson Gibson, Coordinator
Lancaster Clean Water Partners*



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Federal CBRAP and CBIG grants require 50/50 match and workplan / progress reporting broken down by objective.
DEP covers all match requirements with Chesapeake Bay Abatement and Env. Stewardship Fund (ESF)
Example of how we can consolidate different funding sources into one agreement:



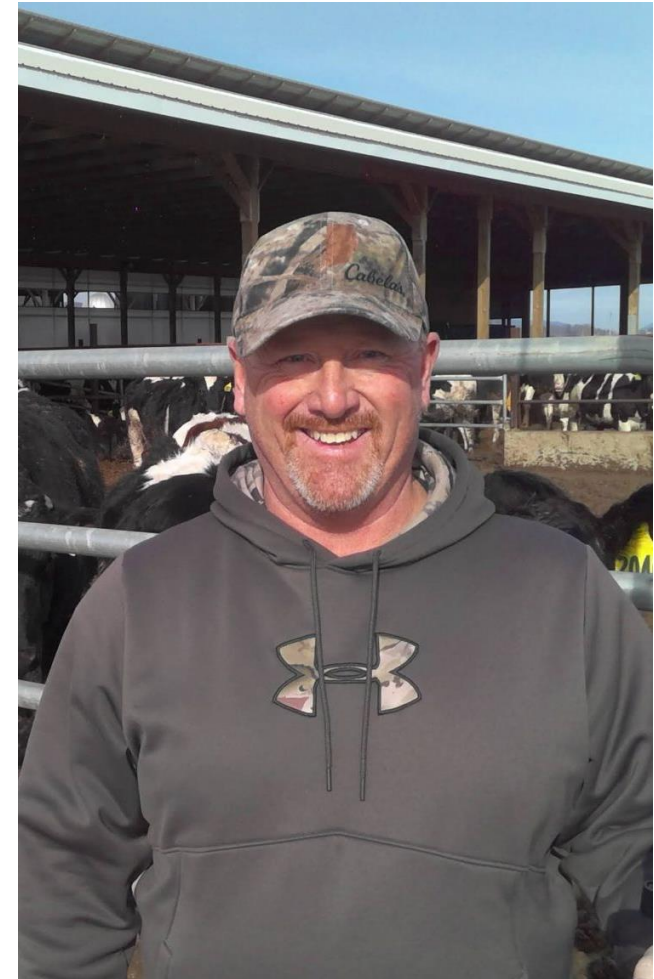
Investments in Conservation Districts

- DEP provides funding to support conservation district missions, delegated programs, and activities.
- In FY 2022-2023, DEP has allocated and administers almost \$27 million to conservation districts statewide through:
 - Nutrient Management / Manure Management Program
 - Watershed Specialist Program
 - Chesapeake Bay Technical Assistance Program
 - Conservation District Fund Allocation Program

Accelerate Implementation through Funding

“Now that we can apply for CAP grants every fall, we have received a substantial amount of money for projects that are good for Franklin County streams and wells. We’ve installed a lot more practices in the last 18 months, thanks to the CAP and WIP.”

*—Scott Metzger, Assistant Manager, Franklin County
Conservation District*



Accelerate Implementation through Funding

“The CAP grant got us going! Once we had the grant from DEP, we were able to use it to match about \$2 million in total grant funds for a Conewago Creek restoration... and that’s for a town of 5,200 people!”

“PA DEP has been a great partner, without them all this would not have happened. They believed in it, funded the first phases of it, and then the other partners wanted to come on board.”

***—Steven Letavic, Township Manager,
Londonberry PA***



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What to Expect in the Future

- **Expanded collaboration:** Continue to work with multi-agency programs to increase efficiencies and outcomes.
- **Implemented Best Management Practices:** Accelerate through additional and flexible funds for project implementation and staff.
- **Engaged and Empowered Local Leaders:** Continue to work with local Coordinators and CAP leads to ensure that they are empowered to inform the process and take action.
- **Expanded technical assistance:** Focus on-demand and necessary training for internal and external personnel.
- **Shared success stories:** Work with state and county partners to share our progress.



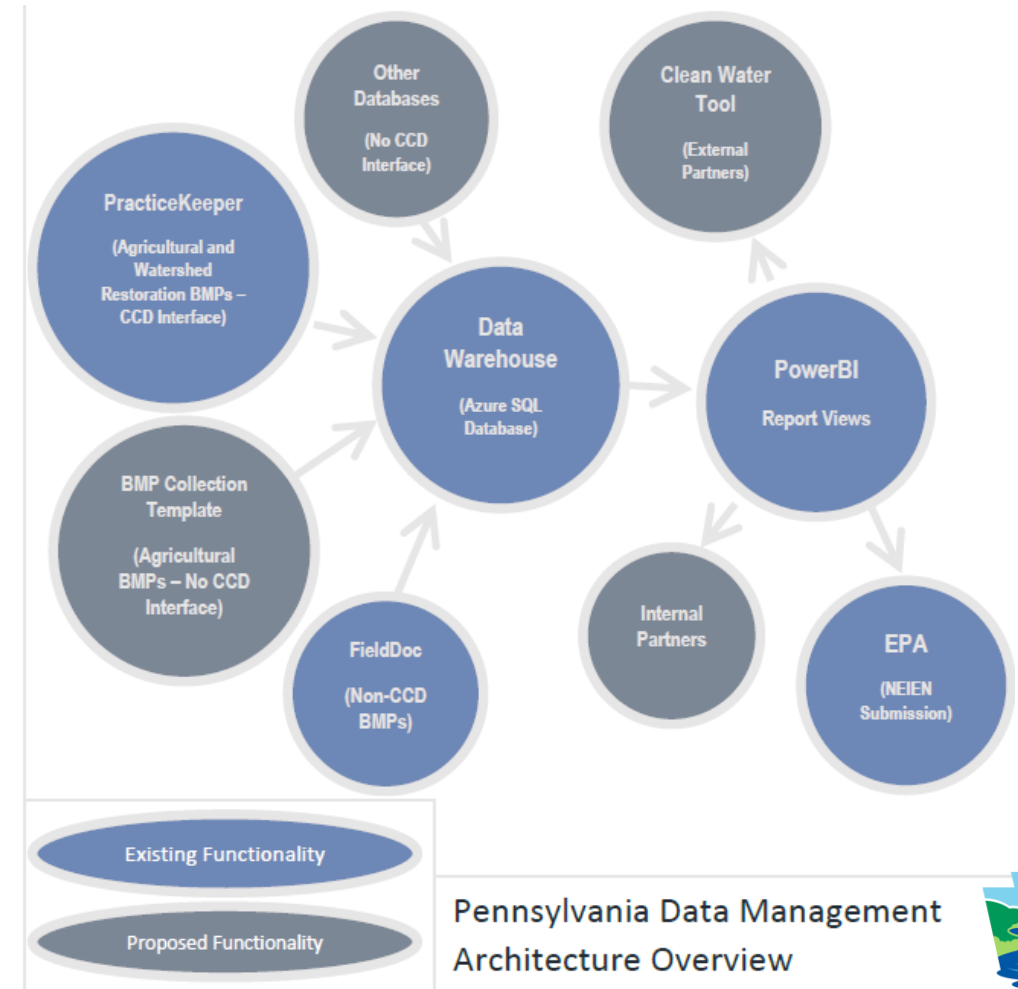
Transparency and Reporting

Public Transparency and Reporting

- **Publication of Programmatic Progress Reports and Annual Reports:** all Chesapeake Bay programmatic progress and annual reports are published to the DEP website.
- **2023 Pennsylvania Phase 3 WIP Progress Timeline:** ongoing and regular action items that take place throughout the year for reporting progress on the Phase 3 WIP Timeline
- **2023 County Partner Phase 3 WIP CAP Implementation Timeline:** key deadlines and CAP Implementation Grant dates to guide county partners in the implementation of their CAPs

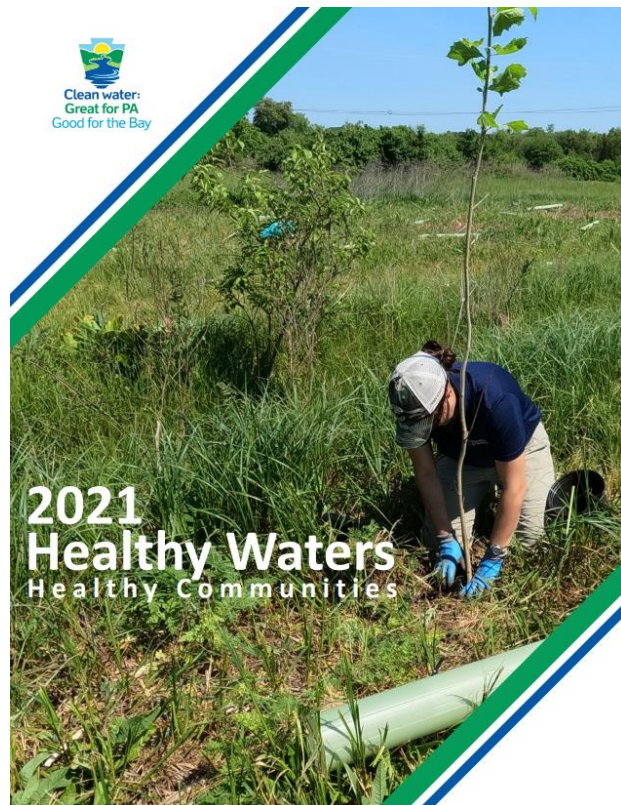
Transparency and Reporting

- Pennsylvania's Chesapeake Bay Nonpoint Source Quality Assurance Project Plan (QAPP) has been resubmitted to EPA on December 1, 2022
 - More information on Pennsylvania's QAPP and BMP Verification Program is on the [Tracking Pennsylvania's Progress](#) webpage.
- DEP compiles data from more than 37 different programs – local, state, and federal – which submit data toward documentation of Pennsylvania's Numeric Progress!



Transparency and Reporting

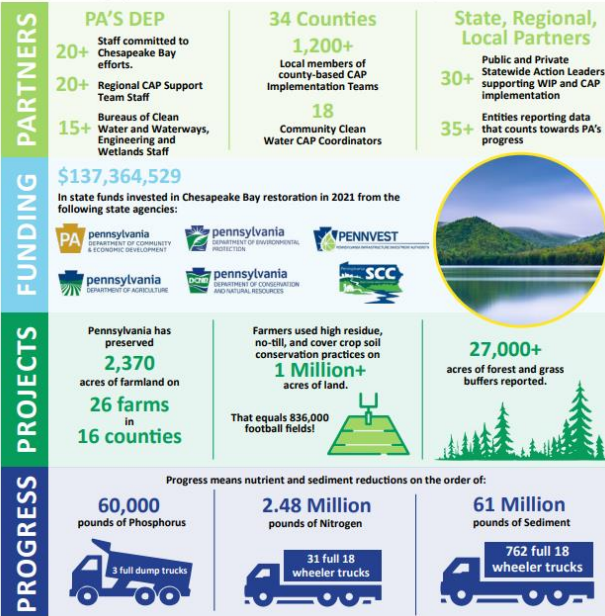
Healthy Waters Healthy Communities Annual Report



PENNSYLVANIA'S 2021 PARTNERS IN PROGRESS

100% of the counties in the Bay watershed that were asked to draft Countywide Action Plans (known as CAPs) have done so

2021 was a year of unprecedented on-the-ground progress, with projects and large-scale partnership accomplishments in Pennsylvania's Chesapeake Bay watershed. All thanks to people and organizations across the watershed coming together with a shared commitment to cleaner water for Pennsylvania.



Nonpoint Source Management Program Annual Report



Resources

- [Healthy Watersheds, Healthy Communities](#)
story map: 3,000+ views
- Clean Water Academy: Web-based training modules
- Updated [Bureau of Watershed Restoration and Nonpoint Source Management website](#)
- [Tracking Pennsylvania's Progress](#): Adding public transparency for milestone commitments and progress
- [Healthy Waters](#) monthly e-newsletter: Increasing subscribers
- CAP Action Items for the Week: weekly email sharing relevant updates, tools, and training opportunities
- Materials and training to support county teams' local outreach needs

[DEP > Businesses > Water > Watershed Restoration and Nonpoint Source Management > Chesapeake Bay Watershed Restoration Division > PA's Phase 3 WIP > Newsletter](#)



HEALTHY WATERS

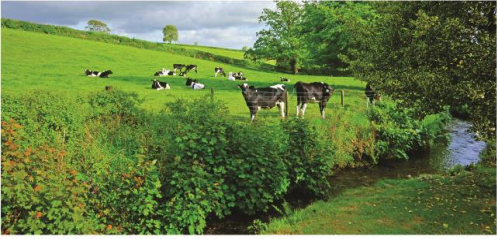
Pennsylvania. Partnership. Progress

The Department of Environmental Protection Bureau of Watershed Restoration and Nonpoint Source Management, Chesapeake Bay Watershed Restoration Division produces a monthly newsletter to showcase progress and updates on the statewide Phase 3 Watershed Implementation Plan and our local partners' Countywide Action Plans. Our newsletter will highlight activities from the Division and our partnering counties, agencies, and action team leaders; reporting and data tools; funding and grant opportunities; and major announcements.

[Sign up for the newsletter](#) 



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