

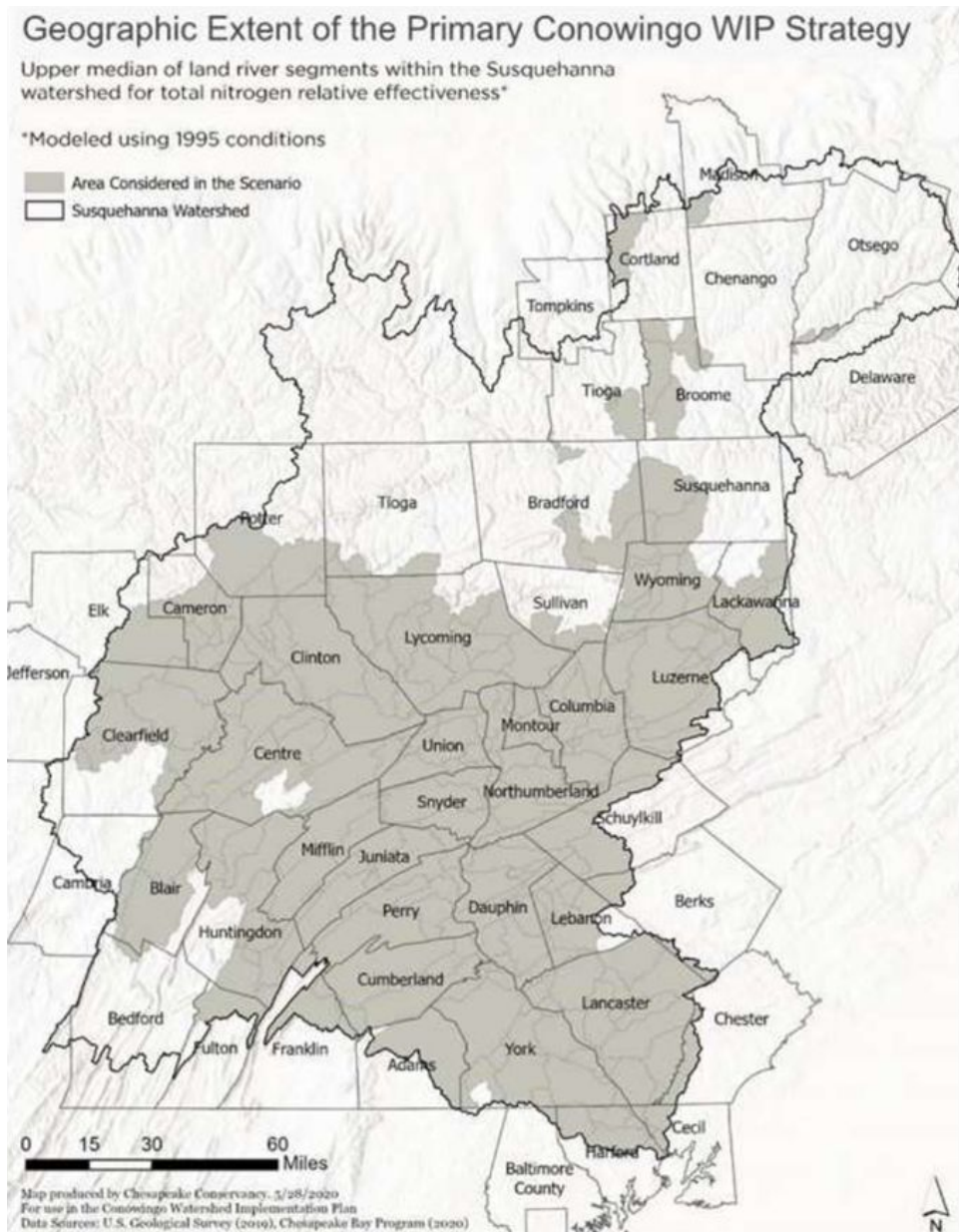
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Conowingo Watershed Implementation Plan Milestones Evaluation 2024-2025 Progress and 2026-2027 Commitments

Christina Lyerly, MDE, Steering Committee Co-Chair

Ashley Hullinger, PA DEP, Steering Committee Co-Chair

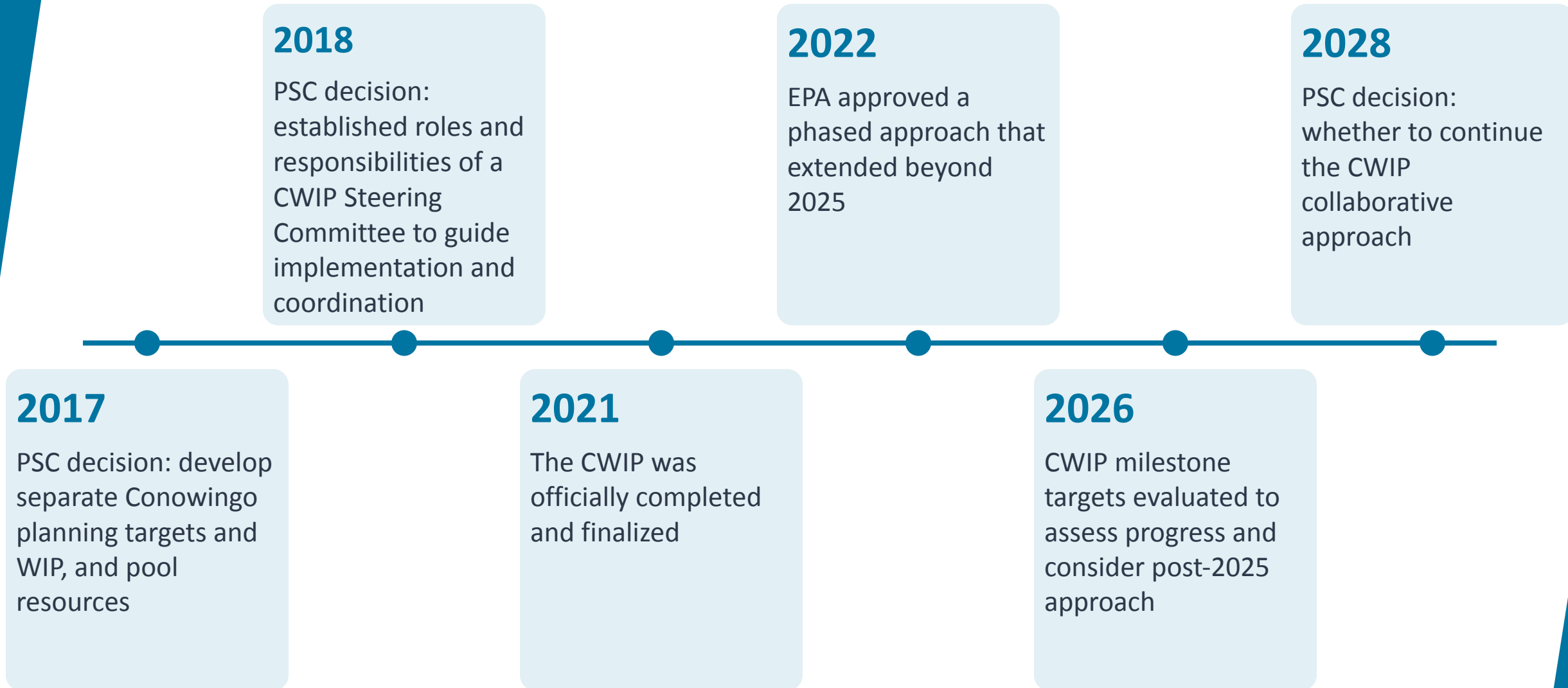
September 14, 2026



Conowingo Watershed Implementation Plan (CWIP)

- ▶ US EPA determined that the Conowingo Reservoir was effectively full, resulting in an additional pollutant load of 6 million pounds of nitrogen and 260,000 pounds of phosphorus
- ▶ Multiple scenarios were developed that reflected implementation at different geographic scales, watersheds, and best management practices
- ▶ The chosen scenario was to implement nitrogen-effective best management practices (BMPs) in the Susquehanna River Basin

CWIP Decisional Timeline



CWIP Approach

Two Phases

Phase 1 (By 2025)

- Achieve 25% of the overall needed nutrient load reductions
- Establish programmatic and financial capacity

Phase 2 (Post-2025)

- Reevaluate and adjust the approach for future implementation

Nitrogen Reductions by 2025

1,675,000 lbs

Total Nitrogen Reductions Needed

6,670,000 lbs

EPA's 2026 Decision: Continue CWIP until 2028 and reevaluate

2024-2025 Milestones Achievements

Pay for Success Programs

Pennsylvania's Clean Water Procurement Program (CWPP)

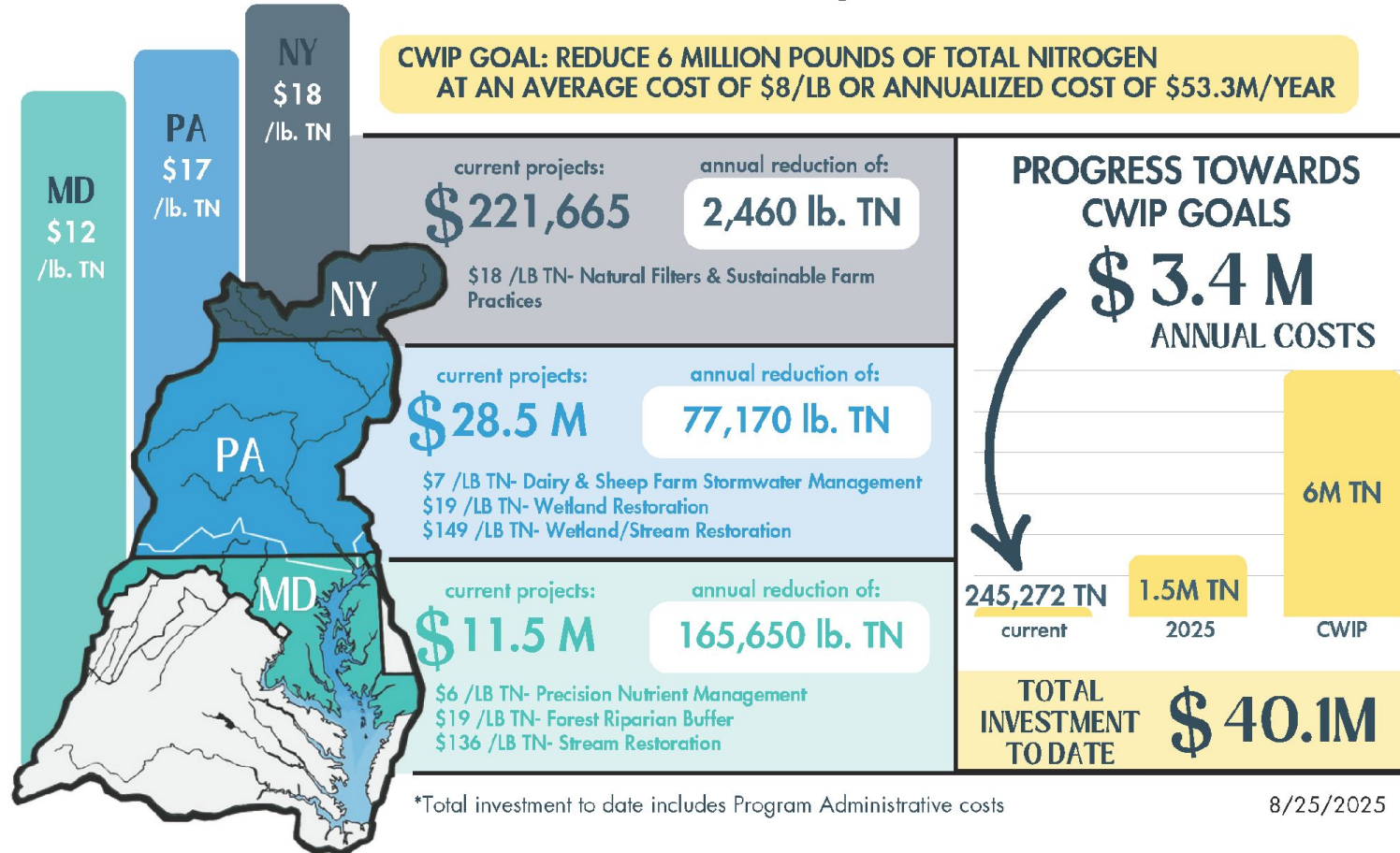
- ▶ Four application rounds have been rolled out by PENNVEST, most recently in 2026
 - ▶ 10 contracts have been executed, totaling almost \$28 million in funding
 - ▶ \$6 million in state funds allocated annually to the CWPP

Maryland's Pay For Success Program

- ▶ Administratively managed by the Susquehanna River Basin Commission (SRBC) in partnership with MDE
- ▶ Round 1 awards currently underway in MD and PA
 - ▶ Approximately \$11.3 million in awards
 - ▶ Annual estimated nitrogen reduction of 165,000 lbs expected
- ▶ Round 2 awards to be announced

Implementation - Planning, Design, & Completed

CONOWINGO WATERSHED IMPLEMENTATION PLAN



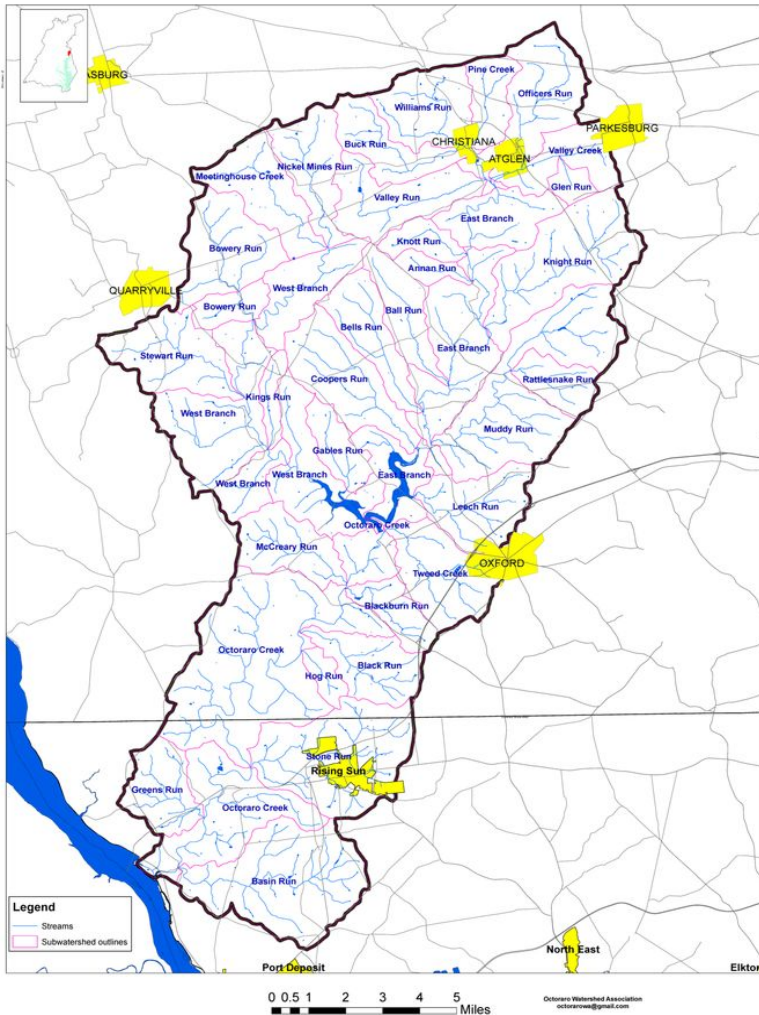
Department of
Environmental
Conservation



Pennsylvania
Department of
Environmental Protection



Capacity Building and Engagement



- ▶ Pennsylvania DEP directed Local Government Implementation (LGI) federal funds to Chester County Conservation District to implement CWIP projects in their share of the Octoraro Watershed
 - ▶ Funds were allocated in January 2024, and agriculture projects are currently being implemented
 - ▶ Octoraro Coordinator position created, providing technical assistance to increase practice implementation
- ▶ INSR Grant awarded to SRBC to fund a Susquehanna Watershed Restoration Coordinator for 3 years
- ▶ SRBC contract with the Alliance for the Chesapeake Bay Amish Liaison Program

Capacity Building and Engagement



- ▶ New York's Most Effective Basin Infrastructure Investment and Jobs Act
- ▶ Approximately \$500,000 annually
- ▶ Partnership with the Upper Susquehanna Coalition
 - ▶ 22 Soil and Water Conservation Districts (18 in NY and 4 in PA)
 - ▶ Headwaters of the Susquehanna River Basin

Load Reduction Review

2025 Target = 25%

	Conowingo N Target (M lbs/year)	2025 Conowingo N Percent Progress	Conowingo P Target (M lbs/year)	2025 Conowingo P Percent Progress	Conowingo S Target (M lbs/year)	2025 Conowingo S Percent Progress
Maryland	0.18	93%	0.003	56%	8	0%
New York	0.08	0%	-0.013	N/A	-3	N/A
Pennsylvania	6.41	0%	0.153	0%	172	0%
Grand Total	6.67	3%	0.143	1%	177	0%

2026-2027 Milestones Commitments Strengths



Enhanced Engagement

Commits to support:

- ▶ Watershed Restoration Coordinators
- ▶ Plain Sect outreach
- ▶ Increased engagement with producers and partners



Numeric Estimates

Provides specific numeric estimates for anticipated nitrogen, phosphorus, and sediment reductions over the next 2 years

Nitrogen

- ▶ NY: 2,500 lbs
- ▶ PA: 77,200 lbs
- ▶ MD: 165,600 lbs



Conowingo Dam Water Quality Certification

Commits to evaluate possible uses of the water quality mitigation fund established in the Constellation Energy settlement agreement



- ▶ Settlement agreement with Constellation Energy Generation, LLC valued at more than \$340M
 - ▶ Water quality and resiliency
 - ▶ Trash and debris removal
 - ▶ Aquatic life passage
 - ▶ Freshwater mussel restoration
 - ▶ Dredging
 - ▶ Invasive species management
- ▶ Submitted to the Federal Energy Regulatory Commission for dam operating license renewal

2026-2027 Milestones Commitments

Key Areas to Address



Capacity Building

Increase programmatic and implementation capacity to accelerate BMP adoption. Current planned activities would achieve 3.6% of the nitrogen target

Conowingo BMP Web Viewer

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All Parcels with BMP Opportunities

- Annual Cropland Practices
- Prescribed Grazing
- Barnyard Runoff Control
- Urban Forest Planting
- Wetland Restoration**
- Vegetated Buffer Opportunity

BMP Definitions provided by the Bay Program:

Annual Cropland Practices:
1) *Manure incorporation*: "Manure Incorporation is defined as the mixing of dry, semi-dry, or liquid organic nutrient sources (including manures, biosolids, and compost) into the soil profile within a specified time period from application by a range of field operations (≤24hr for full ammonia loss reduction credit and 3 days for P reduction credit(s))."

Parcel with Wetland Restoration

Zoom to

This parcel has 3 BMP Opportunities available:

- Annual Cropland Practices
- Wetland Restoration
- Vegetative Buffer Opportunity is available within 100ft and 35ft

COUNTY Lycoming County



Funding

Pursue strategies to secure dedicated, sufficient funding to implement the CWIP and achieve necessary reductions

Chesapeake Pay for Success is a Success

How state water quality program design can drive cost-effectiveness



“Keep funding these programs. They’re working; we can just further optimize their design.”

Huntley & Edinger, Environmental Policy Innovation Center, 2025



Innovation and Modeling

Evaluate new/innovative BMPs and complete the Conowingo Reservoir Modeling Study

Dredging

- ▶ Complete the Conowingo Reservoir Modeling Study evaluating impacts of climate and dredging
- ▶ Evaluating dredging as a possible Chesapeake Bay Program approved practice for reducing nutrients and sediment

Freshwater Mussels Partnership

- ▶ Developing a network of experts and practitioners to advance and promote conservation and restoration, while evaluating water quality value of freshwater mussels

Acid Mine Drainage (AMD)

- ▶ Evaluating effects on nutrient availability before and after AMD treatment

EPA 2026 Decision

- ▶ Continue the CWIP until December 31, 2027
- ▶ Reevaluate the CWIP approach utilizing the next 2-year milestone evaluation in 2028, with an emphasis on progress toward the 25% goal
- ▶ The Chesapeake Bay Program Partnership's Policy Steering Committee to decide the future of CWIP in 2028

Next Steps: Strategic Planning Post-2025

Discussion