







Chesapeake Bay Program Office

# Finalizing Pennsylvania's Phase 3 Chesapeake Bay WIP

## Healthy Waters, Healthy Communities

Pennsylvania Phase 3 Watershed Implementation Plan (WIP)

Nicki Kasi 7-31-2019

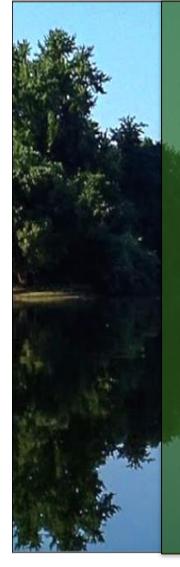


## Purpose of Today's Meeting

To brief you on how (and why) the Phase 3 WIP has evolved from draft to final, and to ask your help to move forward with implementation through 2025

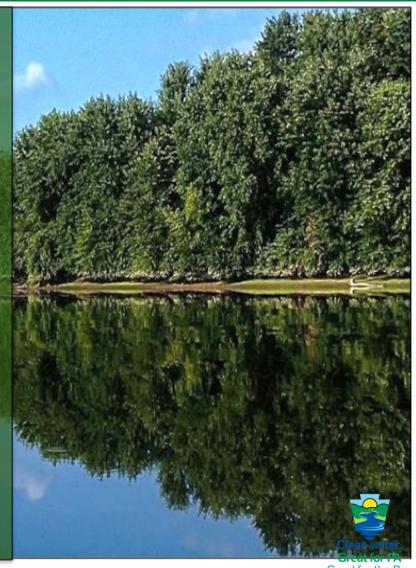


## Phase 3 Watershed Implementation Plan



## Agenda

- Overview of Final Phase 3 WIP
- Comments on the Draft
  - From the EPA
  - From the Public
- Revisions from Draft to Final:
  - Agriculture
  - Forestry
  - Stormwater
  - Wastewater
  - New Initiatives
- Timeline and Next Steps



## Phase 3 Watershed Implementation Plan





## Journey to Success for the Phase 3 WIP

Bi-monthly meetings of 20-member Steering Committee

June 2017 Kickoff & Listening Summit: 240 people working together on shared goals

April 2018 local planning and Community Tool Box summit with nearly 200 participants

7 active Workgroups: Agriculture, Communications and Engagement, Forestry, Funding Local Area Goals, Stormwater, Wastewater

Monthly meetings of Workgroup Co-Chairs

Adams, Franklin, Lancaster, York County pilots

April – June Draft WIP Public Comment Period

August 2018 Best Management Practice Verification Program Planning Summit

2018-19 Pilot County Action Plans developed Final Phase 3 WIP

## Pennsylvania's Modeled Numeric Reductions

# The following are the modeled reductions for Pennsylvania's Final Phase 3 WIP.

Priority Reduction			Phosphorus Reductions <sup>†</sup>		Sediment Reductions <sup>†</sup>		Annualized
initiative	pounds	% target	pounds	% target	pounds	% target	Costs
Total	24,806,000	73%	918,000	121%	713,710,000	n/a	\$468,949,000

<sup>†</sup> edge of tide

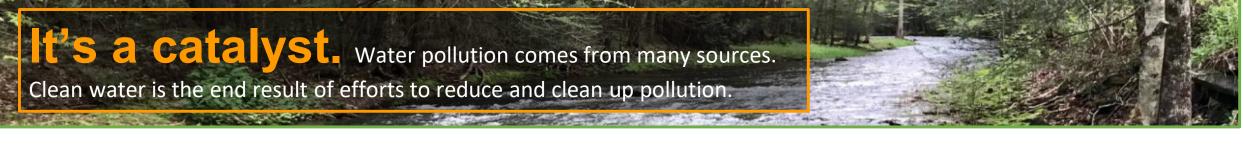


## What EPA Expects from Pennsylvania\*

- Build the financial capacity, technical assistance, regulatory oversight to implement the MS4 programs, stormwater management and agricultural conservation practices
- Secure legislative, regulatory, cost-share, incentive, voluntary and marketbased level pollutant reduction actions across all source sectors
- Build and implement the programmatic infrastructure, tracking system, BMP verification, policies, legislation and regulations necessary to account for growth
- Identification of funding, financing, cost-share, technical assistance, voluntary, policy, programmatic, legislative, regulatory actions needed to address gaps in programmatic capacity.

\* from EPA Expectations Document

#### What is the Phase 3 WIP?



Agriculture



**Forestry** 



**Stormwater** 



Wastewater



**Air Quality** 



Brownfield Cleanup & Redevelopment



Mining, Monitoring & Regulation



Oil & Gas



## Themes to Phase 3 WIP Implementation





## Phase 3 Watershed Implementation Plan





## **Summary of Comments**

#### 40 Commenters, 152 Comments

- Advisory council [2]
- Environmental organizations [11]
- Individual citizens[7]
- Industry associations [5]
- Local government (e.g., borough, township) [5]
- County government [3]
- State government agency [2]
- Federal government agency [1]
- Private consultant, engineering firms, etc. [4]

#### Other

- Workgroup review, enhancements and revisions
- Letter from Governor Hogan, Secretary Matt Strickler
- EPA Evaluation

Pennsylvania Phase 3 Chesapeake Bay Watershed Implementation Plan

Prepared by the Pennsylvania Department of Environmental Protection

> DRAFT April 2019

Tom Wolf, Governor Commonwealth of Pennsylvania Patrick McDonnell, Secretary
Department of Environmental Protection



## **Summary of Comments**

#### There are some common themes among the comments:

- Support for collaborative approach
- Concern expressed over planning target and funding "gap"
- Clarification needed on how the Countywide Action Plan process will work
- Sector specific suggestions for additional enhancements, initiatives
- Concern over additional requirements, "unfunded mandates"
- Questions over costs for implementation
- Editing and clean-up needed



## Summary of Comments

#### Response to Comments on Phase 3 WIP

- Look forward to implementation, continuing the same collaborative approach
- The Phase 3 WIP is realistic, implementable with multiple approaches to achieve the planning targets by 2025
- Flexible, with updates, improved accounting, and modifications continuing as part of the two-year milestone process to ensure success



## EPA Evaluation: Pennsylvania Strengths

- Engagement of local partners/Community engagement
- Countywide Action Plans / Comprehensive road map
- Various commitments for each sector
- Inclusion of workload analysis, with an identification of available and needed resources



#### EPA Evaluation: Potential "Enhancements"

- Re-evaluate activities since the current effort is not projected to achieve
   100% of the planning targets
- Expand beyond the approved Bay Program Partnership approved practices and approaches for other opportunities
- Evaluate Bay Program Verification Protocols to ensure the higher rate of implementation can be tracked, verified and reported.
- Expand the level of implementation detail and programmatic commitment



## EPA Evaluation: How We Responded

- Added programs and practices not included to be counted towards progress.
- Re-evaluated the goals that each sector could realistically achieve by 2025.
- Refined the estimates for existing and available resources for implementation.
- Added lead agency with a timeline for completion to each action step for reporting.
- Identified additional practices and programs not currently recognized that improve water quality in Pennsylvania that should be credited.
- Identified barriers to successful verification of practices that need to be addressed.



## Phase 3 Watershed Implementation Plan





#### The Phase 3 WIP Implementation Strategy

Success of the final Phase 3 WIP depends on sufficient staff and funding to:

- Continue existing state and local programs
- Meet new State commitments, and
- Support voluntary actions identified in the Countywide Action Plans

But even with all of this effort – the model shows a gap between what we will accomplish and our targets. We will close with some new initiatives that weren't in the Draft Phase 3 WIP.

#### **FUNDING & STAFF RESOURCES**

#### **Progress – Existing Programs**

## Documented Programs

Capital Resource Conservation

NRCS

Stream Fencing

REAP

Act 38/Inspection Program

PA Game Commission

DCNR Bureau of Forestry

Dirt and Gravel Road Program

Chapter 102 Post Construction

**PENNVEST** 

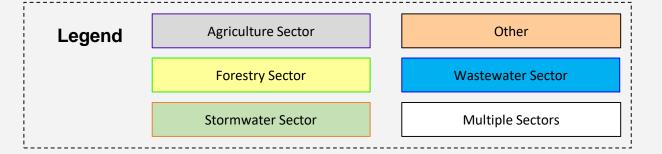
NFWF

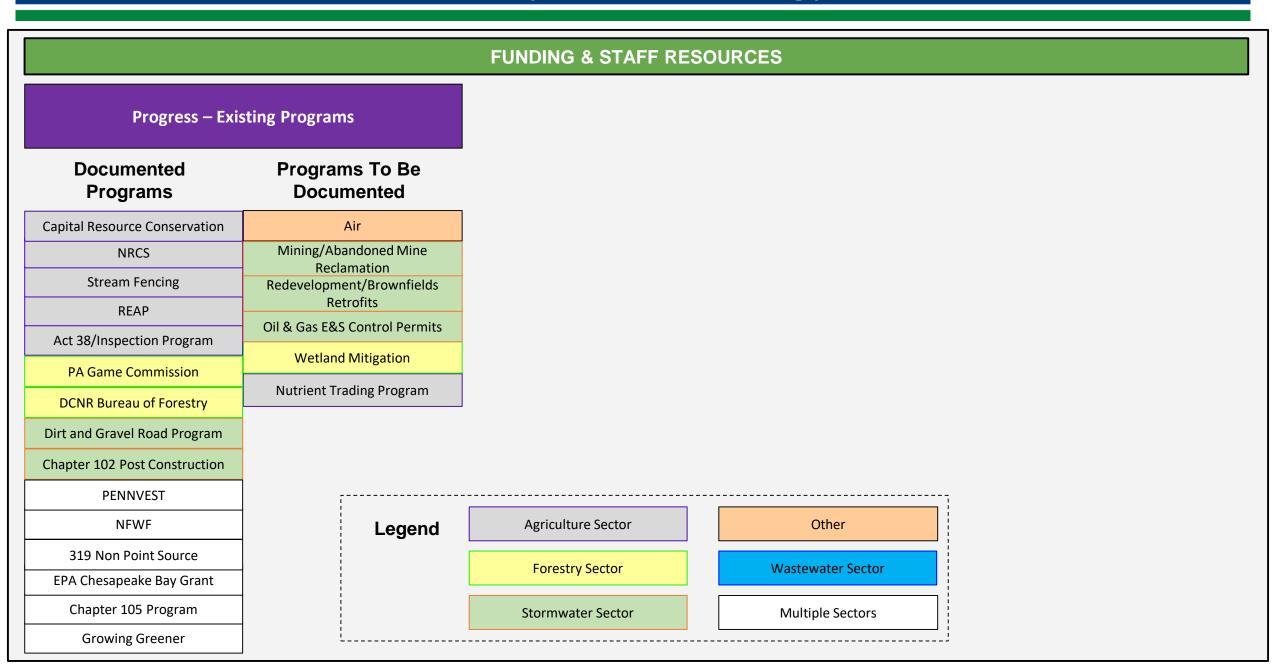
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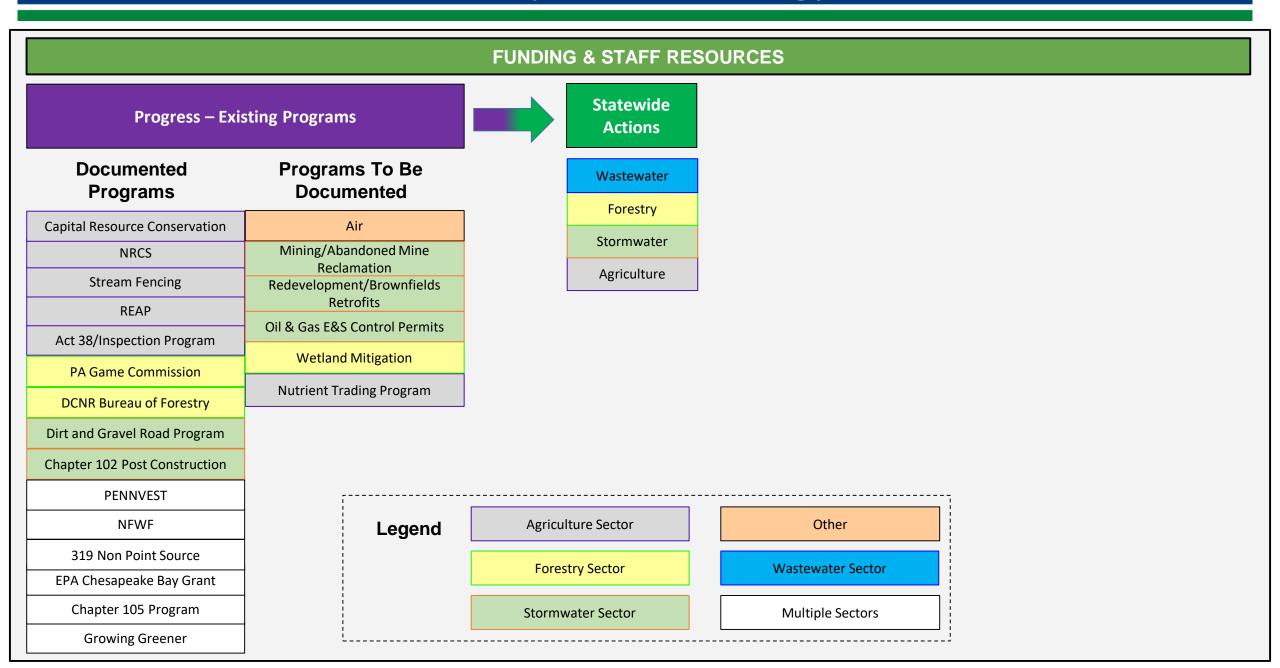
EPA Chesapeake Bay Grant

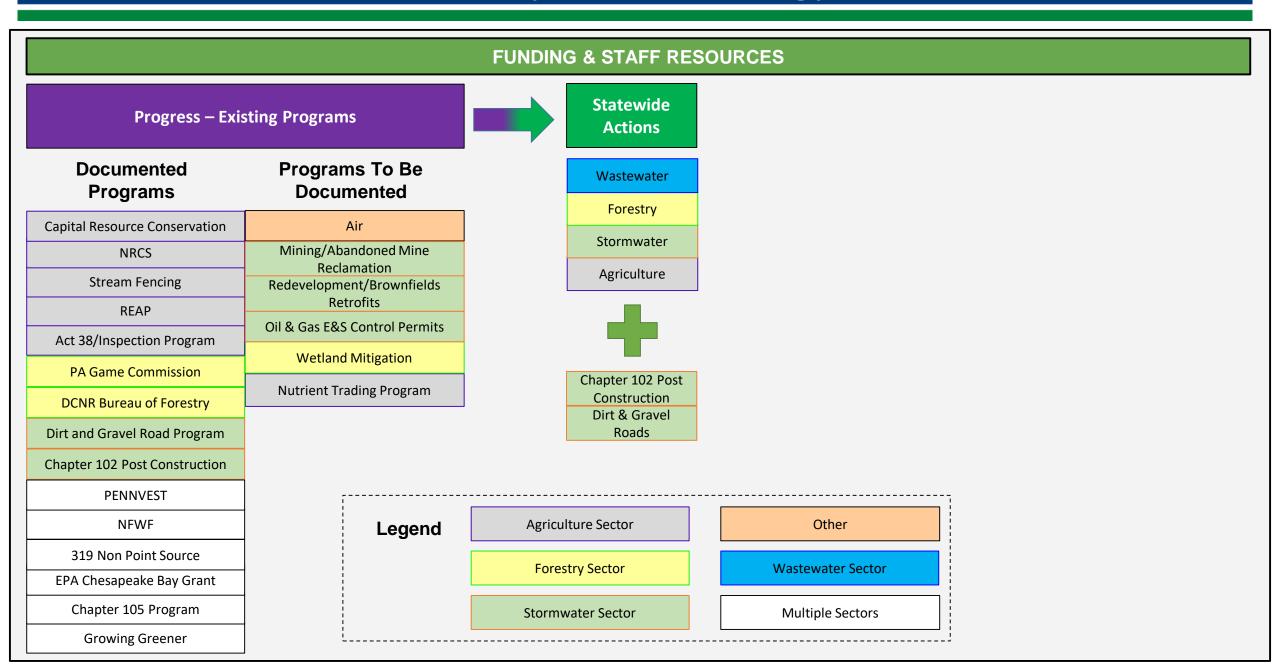
Chapter 105 Program

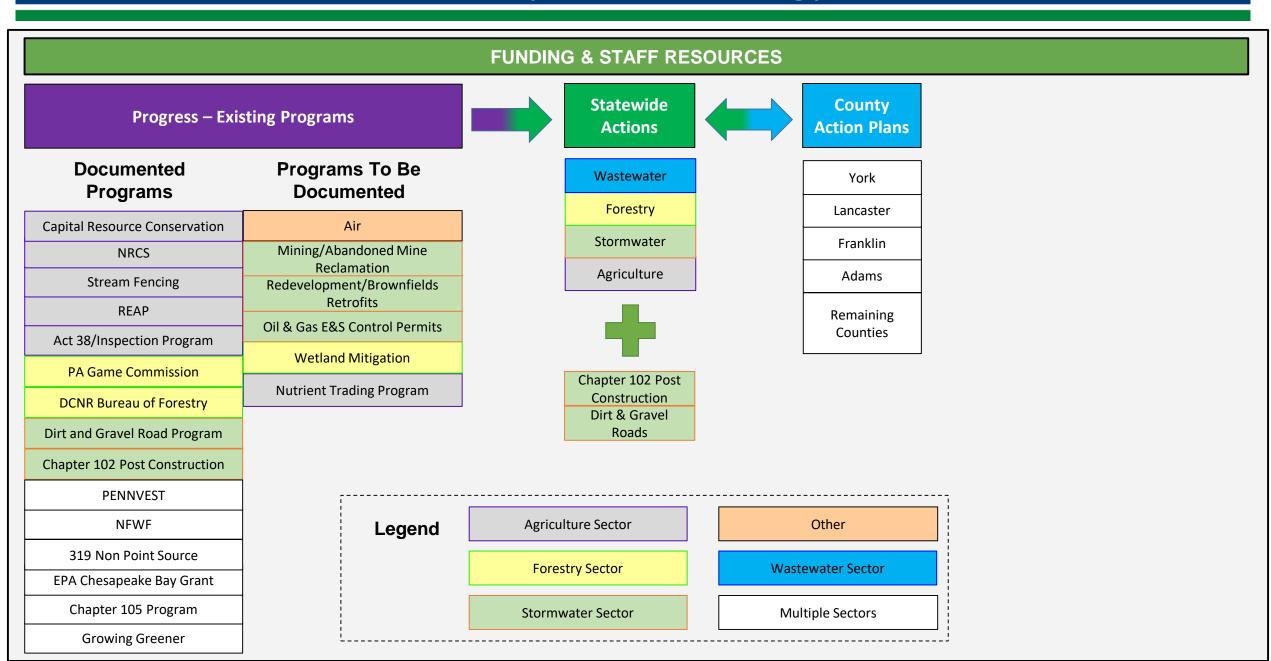
**Growing Greener** 

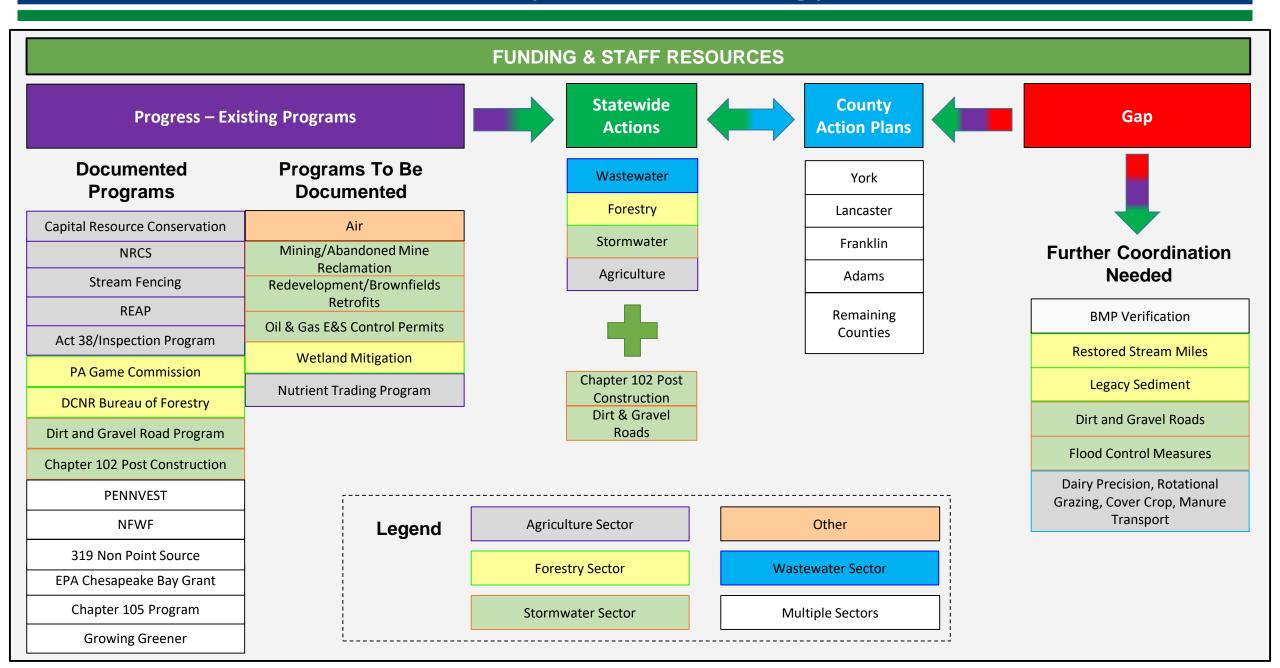




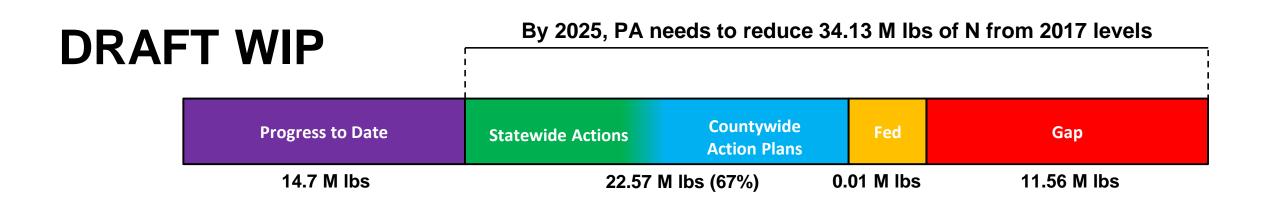


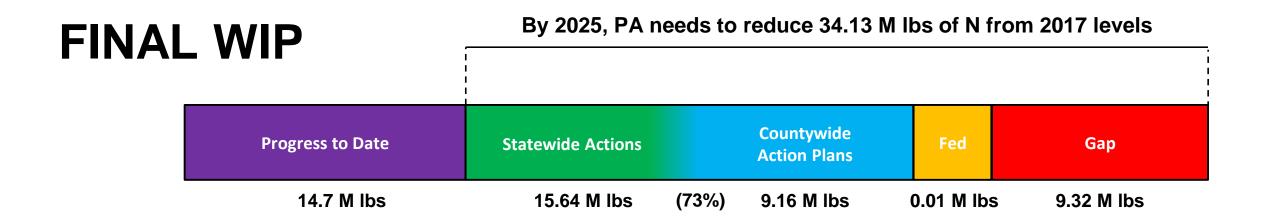




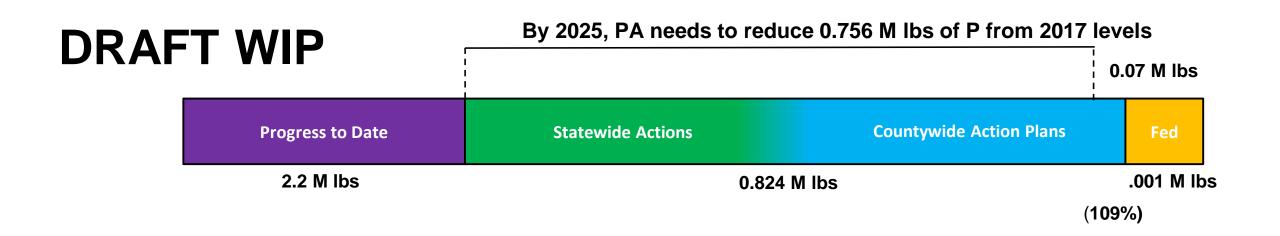


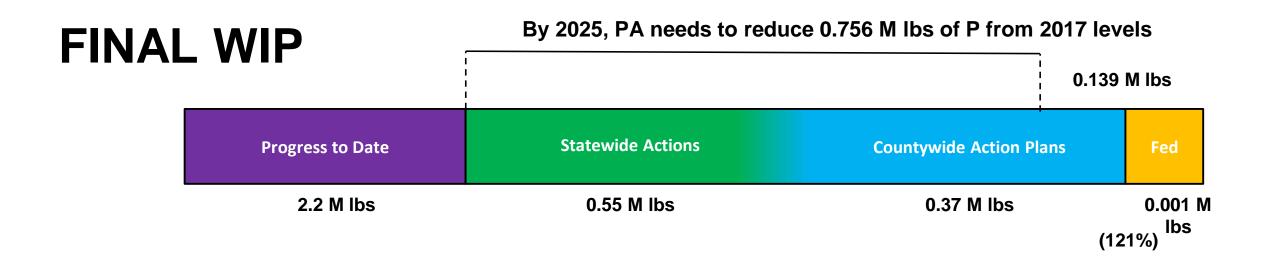
## Pennsylvania's Modeled Nitrogen Progress Bar





## Pennsylvania's Modeled Phosphorus Progress Bar





## Pennsylvania's Modeled Numeric Reductions

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Priority Reduction			Phosphorus Reductions <sup>†</sup>		Sediment Reductions <sup>†</sup>		Annualized
initiative	pounds	% target	pounds	% target	pounds	% target	Costs
Total	24,806,000	73%	918,000	121%	713,710,000	n/a	\$468,949,000

<sup>†</sup> edge of tide



## Agriculture Initiatives (Counties without CAPs)

Priority Initiative	N Reductions*		P Reductions*		Sediment Reductions*		nnualized Cost mplementation
	Draft	Final	Draft	Final	Final	Draft	Final
Total	16,240,000	17,099,000	1,057,000	827,000	1,350,704,000	\$187,600,000	\$206,370,000
Agriculture Compliance	4,562,000	4,562,000	176,000	176,000	635,253,000	\$24,058,000	\$24,058,000
Soil Health	3,874,000	3,874,000	177,000	177,000	475,498,000	\$21,090,000	\$21,090,000
Expanded Nutrient Management (1)	460,000	1,570,000	19,000	62,000	0	\$8,611,000	\$31,735,000
Manure Storage Facilities (2)	4,084,000	4,097,000	130,000	131,000	0	\$125,615,000	\$125,615,000
Dairy Precision Feeding (3)	278,000	584,000	32,000	67,000	0	(-\$894,000)	(-\$1,901,000)
Integrated Systems for Elimination of Excess Manure (4)	421,000	441,000	48,000	65,000	0	\$2,205,000	\$3,278,000
Forest & Grass Riparian Buffers (5)	2,562,000	1,971,000	475,000	148,000	204,815,000	\$6,914,000	\$2,495,000

<sup>\*</sup> edge of stream

- **Includes Manured Acres**
- Lowered Application Rate of Enhanced NM equals additional stored manure
- Increase to 70% for Dairy Precision Feeding
- Slight change due to changes in application rates above
- Switch in Land Use to additional upland acres, limitation with pasture acres



## Forestry Initiatives (Counties without CAPs)

Priority Initiative	N Redu	eductions* P Reduction		ctions*	tions* Sediment Reductions*		Estimated Annualized Cost for Practice Implementation	
	Draft	Final	Draft	Final	Final	Draft	Final	
Total	4,793,000	5,053,000	671,000	532,000	574,929,000	\$67,700,000	\$53,968,000	
Forest Riparian Buffers (1)	4,641,000	4,898,000	643,000	504,000	486,806,000	\$41,400,000	\$28,128,000	
Tree Canopy	110	110	8	8	7,000	\$5,400	\$5,400	
Woods and Pollinator Habitat	59,000	56,000	3,800	3,900	6,423,000	\$1,046,000	\$1,046,000	
Forest, Farm and Natural Areas Conservation	n/a	6,000	n/a	1,000	1,788,000	n/a	n/a	
Stream and Wetland Restoration	93,000	93,000	24,000	24,000	79,906,000	\$27,303,000	\$27,303,000	

<sup>\*</sup> edge of stream

(1) Switch in Land Use to additional upland acres, limitation with pasture acres



## Stormwater Initiatives (Counties without CAPs)

Priority Initiative	N Reductions*	P Reductions*	Sediment Reductions*	Estimated Annualized Cost for Practice Implementation
Total	607,000	62,000	274,375,000	\$60,242,000
Meet Current MS4 Permit Requirements	93,000	27,000	102,097,000	\$57,789,000
New Riparian Forest Buffers	5,000	400	1,173,000	\$48,000
Control Measure for Illicit Discharge	1,000	100	0	\$451,000
Industrial Stormwater	1,000	20	583,000	\$1,953,000
Fertilizer Legislation	71,000	3,000	0	TBD
Meet Current (E&S) and (PCSM ) Requirements (1)	433,000	32,000	152,517,000	0
Dirt and Gravel Roads (2)	0	0	18,005,000	0

<sup>\*</sup> edge of stream

- (1) Undocumented Programs of Oil and Gas, PCSM...
- (2) Projecting Dirt and Gravel Roads Program reductions through 2025



## Additional Initiatives (Counties without CAPS)

Priority Initiative	N Reductions	P Reductions*	Sediment Reductions*	Estimated Annualized Cost for Practice Implementation
Total	412,000*	1	0	\$309,000
Onsite Septic Management (1)	1,000*	1	0	\$309,000
Elimination of Offsets for On-lot Septic System Connections	TBD	TBD	TBD	TBD
Air Reductions (2)	411,000 <sup>†</sup>	0	0	n/a

<sup>\*</sup> edge of stream

- (1) Annual Practice
- (2) Calculated from the Volkswagen Settlement



<sup>†</sup> edge of tide

## Pilot County Implementation

County	Nitrogen (pounds) EOT	Percent of County Goal	Phosphorus (pounds) EOT	Percent of County Goal	Sediment (pounds) EOT
Adams	507,395	56%	20,398	118%	20,606,000
Franklin	1,076,799	45%	36,915	65%	31,354,000
Lancaster	5,542,383	76%	25,581	115%	113,285,000
York	2,036,329	77%	283,562	Goal Met	116,388,000
Total	9,163,000	27%*	367,000	49%*	281,635,000

<sup>\*</sup>Represents total percentage of Pennsylvania's Load



## **Sediment Targets**

- Pennsylvania's Draft Phase 3 WIP reduces 3,039,424,000 lbs of sediment edge-of-stream (EOS), 713,710,000 lbs of sediment edge-of-tide (EOT).
- The Principal Staff Committee approved standard language for inclusion in Final Phase 3 WIP about sediment and the process for calculating sediment targets on August 12. The actual sediment target will be established in the September/October timeframe and added to the Phase 3 WIP as an addendum.
- The sediment target will be based on the combination of practices put into the input deck for the Phase 3 WIP.

## Funding Gap

The table below provides the updated Funding Gap with revised sector recommendations and undocumented programs.

Evicting	Existing Resources 2018	\$168,522,608
Existing	Existing Staff Resources	\$28,285,954
Resources	Total	\$196,808,562
	Statewide Practice Implementation	\$311,779,000
Total Needed	Pilot County Practice	
Resources	Implementation	\$157,170,000
	Staffing Resources	\$52,148,734
	Total	\$521,097,905
<b>Annual Funding C</b>	Sap	\$324,289,173

## Themes to Phase 3 WIP Implementation



- 1. Communications and Outreach
- 2. Funding and Resources
- 3. Enhancing Technical Capacity
- 4. Tracking and Reporting
- 5. Compliance



#### Programmatic Commitments: Communications & Outreach

Action Step	Lead Agency	Timeline for Completion
Support for practice implementation	DEP, DCNR	December 2025
<ul> <li>Countywide Action Plans</li> <li>Hire 2 DEP Coordinators</li> <li>Agreements for 8 County-Based Coordinators with EPA funding</li> </ul>	DEP Chesapeake Bay Office	Fall 2019
<ul> <li>Public communication and outreach</li> <li>Respond to public comment</li> <li>Develop and finish outreach materials, e.g. the DEP web-based StoryMap</li> </ul>	Communication and Engagement Workgroup; DEP, DCNR, and PDA Communications Offices	Fall 2019 through December 2025



## Programmatic Commitments: Funding & Resources

Action Step	Lead Agency	Timeline for Completion
PA Farm Bill passed, other options for dedicated funding source listed	State Legislature, DEP Legislative Office	2019-2020 Legislative Session
Block grant concept	DEP Chesapeake Bay Office	Fall 2019
Funding and capital for alternative manure treatment technologies, as well as Forestry-related practices	DEP, DCNR	By December 2025
Gather and coordinate necessary resources for staged-approach for countywide action plans	DEP Chesapeake Bay Office	Summer 2021

#### Programmatic Commitments: Expanding Capacity for Technical Assistance

Action Step	Lead Agency	Timeline for Completion
Center for Water Quality Excellence	Pennvest, DEP Chesapeake Bay Office	Summer 2021
BMP stormwater manual	DEP Bureau of Clean Water	December 2021
Complete Penn State Study	DEP Energy and Chesapeake Bay Offices	December 2019
Web-based and Classroom Training	DEP, PDA	December 2025
PA Agriculture Conservation Stewardship Program	DEP, PDA	January 2020



#### Programmatic Commitments: Expanding Capacity for Technical Assistance

Action Step	Lead Agency	Timeline for Completion
Support for practice implementation	PDA, DEP, DCNR	December 2025
Possible expansion of Stream Restoration Initiative	PA Fish and Boat Commission, DEP Chesapeake Bay Office	January 2020

### Programmatic Commitments: Reporting & Tracking

Action Step	Lead Agency	Timeline for Completion	
Revise PA Right to Know Law	PDA, State Legislature	2019-2020 Legislative Session	
Planning and prioritization tool, data management system	DEP Chesapeake Bay Office	Fall 2020	
Crediting of practices and programs not currently recognized by the Bay Program Partnership	DEP Chesapeake Bay Office	January 2021	
BMP Verification Plan Approval and Implementation	DEP Chesapeake Bay Office	December 2025	

### Programmatic Commitments: Reporting & Tracking

Action Step	Lead Agency	Timeline for Completion
GIS-based On-lot reporting system	DEP	December 2025
"Real-time" Monitoring Gauge	DEP Bureau of Clean Water	January 2021
Track and report Phase 3 WIP progress	DEP Chesapeake Bay Office	December 2025



## Programmatic Commitments: Compliance

Action Step	Lead Agency	Timeline for Completion
Action plans for State and State-affiliated agencies  • Assign planning goals for State lands	DEP	January 2021
Permitting, inspection, compliance programs <ul><li>Agriculture</li><li>Stormwater</li></ul>	DEP	Ongoing
Review and revise Phosphorus Index	DEP	July 2020
Review 2018 MS4 permits and develop future permits	DEP	December 2022

2019			

	Q1	Q2	Q3	Q4
EPA Reporting			Finalize WIP, Update Program Milestones	Progress on State Programmatic Milestones (Dec.)
Progress Reporting				Progress on State Numeric Commitments (Dec.)
County Reporting		Finished Lancaster, York, Adams and Franklin County CAPs	Start Tier 2 Counties (Bedford, Cumberland, Centre and Lebanon	

#### 2020

	Q1	Q2	<b>Q</b> 3	Q4
EPA Reporting		Progress on State Programmatic Milestones		Progress on State Programmatic Milestones (Dec.)
Progress Reporting				Progress on State Numeric Commitments (Dec.)
County Reporting	Pilot Counties Annual Reporting Tier 2 Counties Finalize CAPs Start Tier 3 & 4 Regional Planning Process			

021				
	Q1	Q2	Q3	Q4
EPA Reporting	Update State Programmatic Milestones			Progress on State Programmation Milestones (Dec.)
Progress Reporting				Progress on State Numeric Commitments (Dec.)
County Reporting		Pilot Counties Revise 2-year Milestones Tier 2 Counties Annual Report	Finalize First Half of Tier 3 & 4 Regional Plans	Finalize Second Half of Tier 3 & 4 Regional Plans
2022				
	Q1	Q2	Q3	Q4
EPA Reporting		Progress on State Programmatic Milestones		Progress on State Programmatic Milestones (Dec.)
Progress Reporting				Progress on State Numeric Commitments (Dec.)
County Reporting	Pilot Counties Annual Reporting Tier 2 Counties Revise 2-year Milestones			Tier 3 & 4 Annual Reporting

2023				
	Q1	Q2	Q3	Q4
EPA Reporting	Update State Programmatic Milestones			Progress on State Programmati Milestones (Dec.)
Progress Reporting				Progress on State Numeric Commitments (Dec.)
County Reporting		Pilot Counties Revise 2-year Milestones Tier 2 Counties Annual Report		Tier 3 & 4 Regional Plans Revis 2-year Milestones
2024				
	Q1	Q2	Q3	Q4
EPA Reporting		Progress on State Programmatic Milestones		Progress on State Programmation Milestones (Dec.)
Progress Reporting				Progress on State Numeric Commitments (Dec.)
County Reporting	Pilot Counties Annual Reporting Tier 2 Counties Revise 2-year Milestones			Tier 3 & 4 Annual Reporting

#### 2025

	Q1	Q2	Q3	Q4
EPA Reporting	Update State Programmatic Milestones			Progress on State Programmatic Milestones (Dec.)
Progress Reporting				Progress on State Numeric Commitments (Dec.)
County Reporting		Pilot Counties Revise 2-year Milestones Tier 2 Counties Annual Report		Tier 3 & 4 Regional Plans Revise 2-year Milestones

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<sup>†</sup> edge of tide



# Phase 3 Watershed Implementation Plan





# Next Steps for the Phase 3 WIP

Comment Period April 12 – June 7 Completed Finalize Public Comment Response Document	August 23, 2019
Agency, Governor Office Review Review by Phase 3 WIP Steering Committee Phase 3 WIP finalized and submitted	August 16, 2019 August 23, 2019
Finalize Sediment Reduction Targets Add targets as an Addendum to the Phase 3 WIP	
Phase 1 Countywide Action Plan development begins Bedford, Centre, Lebanon and Cumberland Counties Phase 2 begins	September 2019  May 2020
F - F - F - F - F - F - F - F - F - F -	Agency, Governor Office Review Review by Phase 3 WIP Steering Committee Phase 3 WIP finalized and submitted Finalize Sediment Reduction Targets Add targets as an Addendum to the Phase 3 WIP  Phase 1 Countywide Action Plan development Degins Bedford, Centre, Lebanon and Cumberland





Good for the Bay

## Phase 3 WIP Call to Action

ACTION #1: Plan Support

- Is there anything in the final Phase 3 WIP that you cannot support?
- Are you ready to support moving from planning to action?



## Phase 3 WIP Call to Action

# ACTION #2: Implementation and future partner involvement

- Invite the Steering Committee members to lead the Phase 3 WIP Action Team
- The Action Team will meet 2-3 times/year to:
  - review and revise milestones;
  - assess progress;
  - course correct, as needed; and
  - discuss lessons learned.
- Workgroups would be used to vet ideas, revisions, and advise as needed











Chesapeake Bay Program Office

#### **Contact Information:**

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#### **DEP Chesapeake Bay Program Website:**

http://www.dep.pa.gov/ChesapeakeBay

#### **Phase 3 WIP Website:**

www.dep.pa.gov/chesapeakebay/phase3

Sign Up for Participation in Countywide Action Plan

RA-EPChesBay@pa.gov

