

**Phase 3 Watershed Implementation Plan (WIP) Planning and Progress Reporting**

Date: June 1, 2020

**Green** - action has been completed or is moving forward as planned    **Yellow** - action has encountered minor obstacles    **Red** - action has not been taken or has encountered a serious barrier

Action #	Description	Performance Target(s)	Responsible Party(ies) and Partnerships	Geographic Location	Expected Timeline	Potential Implementation Challenges or Recommendations	Resources Available	Resources Needed	Progress to Date	Justification for Change to Action Item
							Technical and Financial	Technical and Financial		

**Priority Initiative 1: Communications and Outreach**

Section 2, State Action, Numeric Commitments

<b>2.1.1A</b>	Continue communication, outreach and stewardship programs to increase the use of conservation tillage and no-till practices.	306,196 acres in conservation tillage; 805,778 acres in no-till	PDA, SCC, CDs, CCAs, Private Consultants, Penn State Extension, No Till Alliance, Farmland Preservation, Local Farmland Trusts/Conservancies, PA Farm Bureau	Chesapeake Bay	December 2025					
<b>2.1.2A</b>	Continue communication, outreach and stewardship programs to increase implementation of cover crops.	547,695 acres with fall nutrients, traditional cover crop; 161,601 acres of land without fall nutrients, traditional cover crop; 124,106 acres no fall nutrients and harvested crop	PDA, SCC, CDs, CCAs, Private Consultants, Penn State Extension, No Till Alliance, Farmland Preservation, Local Farmland Trusts/Conservancies, PA Farm Bureau	Chesapeake Bay	December 2025	Challenges include CBP definition of cover crop and the inability to report commodity cover crop via transect survey methodology.				
<b>2.1.3A</b>	Continue communication, outreach and stewardship programs to increase implementation of pasture management.	180,201 acres of land used for pasture would follow NRCS Prescribed Grazing Plan or Resource Improvement Practice.	NRCS, Penn State Extension, Private Consultants, CDs			Challenges include CBP definition of Prescribed Grazing and non-alignment with PA State regulatory requirements under Chapter 91 Manure Management and Chapter 102 Ag E&S.				
<b>2.1.4A</b>	Communicate with EPA Region 3 Agricultural Liaison, Ag Permitting, Compliance and Enforcement Staff	Provide status updates related to agricultural programs and BMP implementation	DEP, SCC, EPA	Statewide	Quarterly					
<b>2.1.1F</b>	Implement a comprehensive communication/outreach strategy to engage farmers/landowners in planting and maintaining riparian forest buffers.	85,000ac. of forest buffers planted on agricultural lands, and 3,100 acres of forest buffers on developed/non-ag lands.	DCNR, DEP, PSC, RFBAC, PA WIP III Forestry Workgroup, SCC, PDA, PSU, etc.	Chesapeake Bay	By 2022	Coordination, scheduling, lack of funding for marketing/communications/outreach/education, etc.				
<b>2.1.2F</b>	Implement a communication/outreach program to engage a variety of turf owners	5K acres of "Urban Forest Expansion" (turf to trees) + 5K acres of	PRPS, DCNR, DEP, agencies and partners,	Chesapeake Bay	By 2023	Brand new program- Coordination, scheduling, lack of funding, etc.				

	to plant trees and meadows on their properties.	“Conservation Landscaping” (turf to meadow).	municipalities and parks, etc.							
<b>2.1.3F</b>	Communicate the importance and values of forests and farmland to facilitate and encourage state and local land conservation programs.	Increase conserved lands both in the headwaters of the PA Chesapeake Bay watershed and near developing areas.	DCNR, DEP, PALTA, etc.	Chesapeake Bay	By 2023	Coordination, scheduling, lack of funding.				
<b>2.1.4F</b>	Emphasize the full range of benefits & co-benefits of stream and wetland restoration to facilitate additional implementation.	Increased acres of wetlands created and restored to approximately 400 acres annually; increased feet of stream restoration projects implemented to approximately 60,000 linear feet annually.	DEP and appropriate NGO partners.	Chesapeake Bay	By 2023	Coordination, scheduling, lack of funding.				
<b>2.1.1S</b>	Continue to engage with municipalities and others on the benefits of implementing and maintaining stormwater management practices through web-based trainings, in-person meetings, workshops, etc.	Implementation of stormwater BMPs within MS4 PRPs, construction stormwater permits, and developed areas outside of the scope of the permitting programs	DEP, PMAA, CCAP, Conservation Districts, Penn State	Chesapeake Bay	Ongoing					
<b>2.1.2S</b>	Provide more awareness of the expanded opportunities for BMP implementation in connection with the MS4 permit requirements	Demonstrate success in improvements to local water quality using the MS4 Flexibilities	DEP, EPA	Statewide	Begins October 2019					
<b>2.1.3S</b>	Track and incentivize MS4 and nonpoint source coordination and collaboration	Document utilization of MS4 and nonpoint source flexibility through PRPs and Annual Reports  Incentivize collaborative approaches through Countywide Action Plan (CAP) development and implementation funding and support	DEP, Chesapeake Bay Counties, MS4s	Statewide	Begins October 2019					
<b>2.1.4S</b>	Continue dialogue with EPA regarding expanding opportunities for MS4 implementation		DEP, EPA	Statewide	Ongoing					

**Section 3, Countywide Actions**

<b>3.1.1</b>	Develop communications and outreach strategy for staged approach to WIP planning and implementation in all counties.	Webinars and calls to provide overview of WIP, define the expectations, and discuss next steps with Tier 3 & 4 counties. Designed to prepare these counties for the second phase of the WIP process.	DEP, Technical Coordinator, Bay office, Agencies Outreach, Communication contractor, Communication	Tier 3 & 4 counties		Participation and engagement from Tier 3 & 4 counties.  DEP/state staffing limitations  Federal funding for Tier 2 and Pilot Counties was not provided in a timely manner,	See Funding and Resources Section, <i>Resources Needed Phase 2</i> columns below	See Funding and Resources Section, <i>Resources Needed Phase 2</i> columns below		
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			and Engagement Workgroup, External Contractor			thereby pushing our schedule with Tier 3 and 4 counties back.				
<b>3.1.2</b>	Conduct outreach via webinars and one-on-one meetings to provide overview of WIP, define the expectations, and discuss next steps to prepare counties for the WIP planning process.	Tier 3 & 4 counties will explore the potential of forming regionalized planning groups of 2-4 counties. Regional planning groups will begin their regionalized planning process with an assigned external coordinator for focused outreach and engagement to county stakeholders.	DEP, Technical Coordinator, Bay office, Agencies Outreach, Communication contractor, Communication and Engagement Workgroup, External Contractor	Tier 3 & 4 counties	Begins August 2020 (following the completion of Tier 2 county planning)	Regionalized planning still requires counties to submit an individual county plan.  State staffing support  Federal funding for Tier 2 and Pilot Counties was not provided in a timely manner, thereby pushing our schedule with Tier 3 and 4 counties back.	See Funding and Resources Section, <i>Resources Needed Phase 2</i> columns below	See Funding and Resources Section, <i>Resources Needed Phase 2</i> columns below		
<b>3.1.3</b>	Begin implementation of WIP plans completed by four pilot counties.	Assign an external coordinator to each Tier 2 county to assist with WIP planning and implementation efforts.	DEP, Technical Coordinator, Bay office, Agencies Outreach, Communication contractor, Communication and Engagement Workgroup, External Contractor	Tier 2 Counties	Begins January 2020	State staffing support  Internal and External Coordination  Federal funding for Tier 2 and Pilot Counties was not provided in a timely manner, thereby pushing our schedule with Pilot counties back.	See Funding and Resources Section, <i>Resources Needed Phase 1 &amp; 2</i> columns below	See Funding and Resources Section, <i>Resources Needed Phase 1 &amp; 2</i> columns below		
<b>3.1.4</b>	Seek staffing to support this large-scale coordination and support effort.	An external coordinator will work one on one with the pilot counties to begin the implementation of their countywide action plan.	DEP, Technical Coordinator, Bay office, Agencies Outreach, Communication contractor, Communication and Engagement Workgroup, External Contractor	Pilot Counties	Begins January 2020	State staffing support  Internal and External Coordination  Federal funding for Tier 2 and Pilot Counties was not provided in a timely manner, thereby pushing our schedule with Tier 3 and 4 counties back.	See Funding and Resources Section, <i>Resources Needed Phase 1</i> columns below	See Funding and Resources Section, <i>Resources Needed Phase 1</i> columns below		

**Section 10, Communication and Engagement Strategy**

<b>10.1.2</b>	Develop the outreach materials, webinars, templates for letters and mailings and success stories identified by the Communications and Engagement Workgroup for their use in message delivery and outreach.	Final materials will be distributed to the C& E Workgroup materials as they are finished for their use.	DEP/DCNR/PDA Communication Office, DEP CBO		As needed		\$200,000			
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10.1.3	Finalize the DEP Web-based StoryMap.	Final StoryMap	DEP Communication Office		March 2020		\$20,000			
10.1.4	Schedule and participate in focus groups, forums and workshops, as appropriate.	Presentations and summaries of such events and the input provided will be shared as appropriate.	C & E Workgroup members; DEP/DCNR/PDA Communication Offices, DEP CBO	Chesapeake Bay	As needed					
10.1.5	Communications and Engagement Workgroup members will use the delivery tools developed to reach their respective constituents through mailings, newsletters, their respective websites, conferences, workshops, etc. about the importance of clean water and the goals of the Phase 3 WIP.	Mailings, newsletters, websites, conferences and workshops of C&E Workgroup are utilized as appropriate to convey the message developed.	C & E Workgroup members; DEP/DCNR/PDA Communication Offices, DEP CBO	Chesapeake Bay	Between now and 2025					

**Priority Initiative 2: Funding and Resources**  
**Section 2, State Action, Programmatic and Narrative Commitments**

2.2.1	Pass legislation providing a funding source or combination of funding sources for the implementation of the Phase 3 WIP.	PA Farm Bill - The Conservation Excellence Grant provides grants, loans, and tax credits to incentivize agricultural BMPs in priority geographies as found within the WIP.  Keystone Tree Fund – This fund will go toward DCNR’s tree planting initiatives	PDA, DCNR, DEP, State Legislature, Governor’s Office		2019-2020 Session					
2.2.1(i)	Incentivize implementation of Agriculture BMPs that comprise 60% and/or 10-fold increase of the nitrogen reductions through complementary local, state, federal, non-profit and private funding programs	Initiate Conservation Excellent Grant Program, to include bundling grants with REAP tax credits and low-interest loans in Tier 1 Counties.  Expand funding of REAP tax credits and prioritize in Chesapeake Bay Watershed.  Initiate Chesapeake Bay Ag Inspection Program – Phase 2, to include providing cost-share to farmers that are yet to be	PDA, SCC, DCNR, DEP, PENNVEST, EPA, NRCS, Pilot, Tier 1 and Tier 2 counties, non-profit and private entities		Beginning July 2020					

		<p>or have been inspected, in select counties.</p> <p>Continue Agriculture Plan Reimbursement Program to cost-share the development of privately written agricultural plans (Agriculture Erosion and Sediment Control, Manure Management).</p> <p>Coordinate with NRCS to identify and prioritize funding through RCPP, EQIP, CREP, and other federal funding programs.</p> <p>Prioritize up to 50% of Growing Greener funding to nutrient and sediment reducing practices in the Chesapeake Bay Watershed.</p> <p>Pilot Center for Water Quality Excellence, which will provide financial assistance and technical guidance, in Tier 1 Counties.</p> <p>Prioritize EPA CBIG funds for riparian forest buffer and agriculture BMP implementation in Tier 1 and 2 counties.</p> <p>Utilize EPA "Most Effective Basin" (MEB) funds to cost-share implementation of agriculture BMPs in geographic areas of highest impact in the Chesapeake Bay Watershed.</p>								
<p><b>2.2.2</b></p>	<p>Identify the process and develop specific procedures for the award of "block grants" to the lead</p>	<p>Policy and procedures and a grant agreement developed for use in the</p>	<p>DEP, Comptroller's Office</p>		<p>Fall 2019</p>					

	planning teams for the implementation of the CAPs.	development and award of grants to counties in the implementation of the CAPs								
<b>2.2.3</b>	Initiate allocation of funding utilizing “block grants” to the lead planning and implementation teams of the CAPs	Allocate state and federal funding to Pilot and Tier 2 counties to fund coordinators as well as to accelerate the implementation of their CAPs.  Allocate state and federal funding to Tier 3 and 4 counties once CAPs are developed.  Best Management Practices in the CAPs focus on reductions for agricultural, stormwater, and forestry/natural sectors.	DEP, Comptroller’s Office		Begins January 2020					
<b>2.2.4</b>	Continue to work with NFWF to fund the Local Government Implementation (LGI) grants	Assist with the development of RFP and review of applications	DEP		Begins February 2020					
<b>2.2.5</b>	Engage with other jurisdictions regarding interstate trading and cross-jurisdictional financing (e.g. Conowingo)		DEP, PennVest		2021					
<b>2.2.6</b>	Investigate the potential for and implementation of short-term, low-interest, loans and other financing streams for agricultural projects		PennVest, PDA, DEP		2021					
<b>Section 2, State Action, Numeric Commitments</b>										
<b>2.2.1A</b>	Investigate the incorporation of alternative manure treatment technologies and other potential strategies to address areas of excess manure nutrient generation and capital investment required for implementation of manure treatment systems.	Identify various strategies to minimize nutrient imbalances in areas of excess manure nutrient generation, including the incorporation of manure treatment technologies and manure transport, as they are determined to be feasible.	PDA, SCC, DEP Nutrient Trading Program, NRCS	Chesapeake Bay counties that are identified to have excess manure generated for crop need	December 2025	Capital investment, cost effectiveness, and modeled nutrient reduction effectiveness is of concern.				
<b>2.2.1A(i)</b>	Prioritize and/or incentivize increased manure transport and manure transport implementation and tracking in counties, such as Lancaster County, that have been identified through CBPO Modeling		DEP, SCC, PDA, Lancaster County		Beginning 2020	Tracking and auditing of manure hauler/broker records				

	Tools to be in excess of organic nutrients									
<b>2.2.1F</b>	Maximize existing funding sources for riparian forest buffer implementation in Pennsylvania.	Fully utilize existing funding sources for buffer implementation and maintenance annually, including federal, state, and private programs (esp. under-utilized programs such as REAP).	DEP (GG, 319), UDSA (CREP+), SCC (REAP), DCNR (C2P2) TreePennsylvania (TreeVitalize) CBF (K10), etc.	Chesapeake Bay	By 2025	Rigid programs, existing restrictions, coordination, lack of understanding about all individual programs, etc. Lack of funds to start a new program.				
<b>2.2.2F</b>	Expand TreeVitalize and utilize other programs to facilitate community tree planting and maintenance.	50 New Acres of New Urban Trees (300 trees = 1 acre)	Tree Pennsylvania, DCNR, PSU, municipal partners, etc.	Chesapeake Bay	By 2022	Coordination, scheduling, lack of funding.				
<b>2.2.3F</b>	Create additional, flexible funding options for riparian forest buffers.	Develop new, innovative PA (or Ches. Bay) funding source and mechanism for Buffers, including incentive programs for landowners utilizing buffer co-benefits such as wildlife habitat, income/product potential, flood mitigation, etc. Streamline funding source similar to DCNR's NFWF-Funded Stream ReLeaf program.	All agencies and partners	Chesapeake Bay	Ongoing/ASAP	Innovation, Funding, Coordination, etc.				
<b>2.2.4F</b>	Ensure that riparian forest buffers are adequately maintained to ensure survival by developing a Maintenance funding source for NGOs to develop their own maintenance programs.	Develop a Riparian Forest Buffer Maintenance funding source to create the capacity for NGOs to develop their own maintenance programs for new and already-implemented buffers (up to 5 years after initial planting).	All agencies and partners involved in riparian forest buffer implementation	Chesapeake Bay	Ongoing	Lack of interest in funding maintenance from traditional funding sources as it does not result in "new" load reductions.				
<b>2.2.5F</b>	Continue and Increase Urban Tree Canopy Grants to Communities and non-governmental organization Partners	Utilize and increase funding available through the TreeVitalize annual grant program. Encourage tree planting and/or conservation of existing tree canopy in existing DCNR Grant programs, other agency grant programs as appropriate (grants to community parks, etc.)	DCNR, Tree Pennsylvania, PRPS	Chesapeake Bay	Ongoing	Current Funding does not meet demand. Processes, procedures, and administration.				



		Connect this work to DCNR's Climate Plan.								
<b>2.2.6F</b>	Leverage existing funding sources for Stream and Wetland Restoration.	Explore potential to improve leveraging of EQIP, CFA and REAP programs to support creditable/conforming stream and wetland restoration implementation, management and monitoring.	DEP, NRCS, SCC, NGOs, DCNR, Universities, etc.	Chesapeake Bay	Ongoing	Strict program regulations, lack of knowledge about existing programs and creditable BMPs, etc.				
<b>2.2.7F</b>	Develop funding opportunities for turf conversion programs.	Include Conservation Landscaping as an eligible BMP in existing conservation grant programs. Seek new innovative funding sources and mechanisms. Explore funding opportunities tied to flood mitigation.	DCNR, TreePennsylvania, TreeVitalize, DEP, etc.	Chesapeake Bay	By 2021	Time, finding funding sources, etc.				
<b>2.2.8F</b>	Continue to implement stream restoration, emphasizing creditable, load-reducing projects. Pair stream restoration projects with tree planting BMPs whenever possible. Identify areas that may have a high cost-to-benefit ratio for load reductions from legacy sediment removal and associated ecosystem restoration.	Identify areas that would benefit from Legacy Sediment Removal and Ecosystem Restoration throughout priority areas of the watershed	DEP, CDs, Watershed Organizations, Private sector companies or NGOs working on remote sensing tools		Beginning 2020	Capital investment for design/implementation is of concern.				

**Section 3, Countywide Actions**

<b>3.2.1</b>	<p><b>Phase 1 (Pilot and Tier 2 counties):</b> Provide 8 – Community Clean Water Coordinators (External Full Time position)</p> <p><b>Phase 2 (Tier 3 &amp; 4 counties):</b> Provide 13 – Community Clean Water Coordinators (External Full Time position)</p>	External coordinating staff would be assigned to individual Tier 1 & 2 counties in phase 1, and to regionalized Tier 3 & 4 counties in phase 2. External Coordinators would be DEP contractors reporting to the DEP Internal Coordinators. Serve as the point of contact to their assigned county(ies). They would support county efforts to develop and implement countywide action plans.	<p>DEP</p> <p>External Contractor</p> <p>County Planning Offices</p> <p>County Conservation Districts</p> <p>Other County Partners</p>	Chesapeake Bay	<p><b>Phase 1:</b> Begins in January 2020</p> <p><b>Phase 2:</b> Begins in August 2020</p>	<p>State staffing support</p> <p>Internal and External Coordination</p> <p>Federal funding for Tier 2 and Pilot Counties was not provided in a timely manner in order to begin Phase 1. This pushed the schedule back for both Phase 1 and Phase 2.</p>			<p><b>Total:</b> 21 – Community Clean Water Coordinators \$2,100,000 (\$100,000 per coordinator)</p> <p><b>Phase 1:</b> 8 – Community Clean Water Coordinators \$800,000</p> <p><b>Phase 2:</b> 13 – Community Clean Water Coordinators</p>	
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							\$1,300,000		
3.2.2	<p><b>Phase 1:</b> Provide 3 – Community Clean Water Coordinator (Full Time Internal Coordinator Position)</p> <p><b>Phase 2:</b> Provide 7 – Community Clean Water Coordinator (Full Time Internal Coordinator Position)</p>	Internal Coordinators: Would be DEP employees. Internal Coordinators would serve as the point of contact and provide WIP coordination for DEP and all other state agencies for external coordinator and technical coordinators.	DEP		<p><b>Phase 1:</b> Begins in January 2020</p> <p><b>Phase 2:</b> Begins in August 2020</p>	<p>State staffing support</p> <p>Internal and External Coordination</p> <p>Phase 1 – internal coordinators were on-boarded beginning January 2020</p>	<p><b>Total:</b> 10 – Community Clean Water Coordinator \$1,000,000 (\$100,000 per coordinator)</p> <p><b>Phase 1:</b> 3 – Community Clean Water Coordinator \$300,000</p> <p><b>Phase 2:</b> 7 – Community Clean Water Coordinator \$700,000</p>		
3.2.3	<p><b>Phase 1:</b> Provide 2 – Clean Water Technical Assistance Coordinators (Full Time Technical Coordinator)</p> <p><b>Phase 2:</b> Provide 8 – Clean Water Technical Assistance Coordinators (Full Time Technical Coordinator)</p>	Technical Coordinator: A DEP contractor reporting to the DEP Internal Coordinator. The Technical Coordinator would be responsible for: for providing information and facilitation of planning tools through the planning and implementation process, assist with reporting and tracking of milestones annual progress, assist in model runs for plan development and during annual milestone updates.	Technical Contractor		<p><b>Phase 1:</b> Begins in July 2019</p> <p><b>Phase 2:</b> Begins in August 2020</p>	<p>State staffing support</p> <p>Internal and External Coordination</p> <p>Technical coordinators will have varied workloads.</p> <p>Phase 1: preparation for Phase 1, to include development of tools (guides, toolboxes, web-based reporting systems, training) was on schedule.</p>	<p><b>Total:</b> 10 – Clean Water Technical Assistance Coordinators \$900,000 (\$90,000 per coordinator)</p>		
3.2.4	<p><b>Phase 1:</b> Provide 1 – Clean Water Facilitation Coordinator (Full Time Facilitation Coordinator Position)</p>	Facilitation Coordinator: A DEP contractor reporting to the DEP Internal Coordinator.	Facilitation Coordinator DEP		April 2019	<p>State staffing support</p> <p>Internal and External Coordination</p>	<p>1 – Clean Water Facilitation Coordinator \$100,000</p>		
3.2.5	<p><b>Phase 1:</b> Provide 1 – Clean Water Outreach Coordinator (Full Time Outreach Contractor)</p>	Outreach Coordinator: A DEP contractor reporting to the DEP Chesapeake Bay Office, in coordination with WIP Communication and Engagement	Outreach Coordinator DEP		April 2019	<p>State staffing support</p> <p>Internal and External Coordination</p>	<p>1 – Clean Water Outreach Coordinator \$100,000</p>		

		Workgroup and DEP Communication Office.								
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**Priority Initiative 3: Expanding Capacity for Technical Assistance**

**Section 2, State Actions, Programmatic and Narrative Commitments**

<b>2.3.1</b>	Implement a pilot of the Center for Water Quality Excellence concept in the four pilot counties of Lancaster, York, Adams and Franklin Counties.	A Request for Proposals will be released and awardee put in place. Assistance will be provided to landowners and municipalities to complete projects.  Assistance includes outreach and resources (both technical and financial) to municipalities and farmers to implement BMPs.	DEP, Pennvest	Lancaster and York	RFP done April 2020 Pilot done Summer 2021					
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**Section 9, Climate Change**

<b>9.3.1</b>	Complete the Penn State Study, <i>Climate Change Impacts on Pennsylvania's Watershed Management Strategies and Water Quality Goals</i>	Study will answer some key questions that will be used to more effectively select and target practices that will address climate resiliency goals.	DEP, Penn State	Statewide	July 2020					
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**Section 2, State Actions, Numeric Commitments**

<b>2.3.1A</b>	Initiate Implementation of Pennsylvania's Agriculture Conservation Stewardship Program	Finalize draft program guidance, application, and on-farm assessment tools; 3 <sup>rd</sup> party verification process, pilot program; and release program for initial implementation	Certified Third Parties, CDs, DEP, SCC, PDA	Chesapeake Bay	July 2020					
<b>2.3.2A</b>	Work with third-parties, integrators, and co-ops to identify alternative methods to support and assess compliance with regulations without use of regulatory entities	Assess/increase implementation of agricultural plans and BMPs using programs such as those developed by Turkey Hill, Alliance for Chesapeake Bay, and MD/VA Cooperative	Certified Third Parties, Integrators and Cooperatives, DEP	Chesapeake Bay – Animal Producers	December 2025					
<b>2.3.3A</b>	Implementation of Animal Waste Management Systems	Adequate manure storage for 90% of swine/poultry operations; 75% of all other animal types	NRCS, CDs, Private Consultants, Swine and Poultry Integrators	Chesapeake Bay – Animal Producers	December 2025	Need to amount of licensed P.E's and those with job approval authority in order to meet PA regulatory requirements for liquid storages. Need to increase number of qualified engineers for solid storages.				

2.3.4A	Develop web-based and in-person training for Manure Management Planning and Agriculture Erosion and Sediment Control Planning	Finalize Soil Erosion and Sedimentation Control Manual for Agricultural Operations technical guidance (383-4200-002) and train conservation districts and consultants.	DEP, Penn State Extension, SCC, NRCS	Statewide	September 2020	TGD finalized and released October 2019. Training in development.				
2.3.5A	Focus agricultural technical assistance and financial resources in areas of highest need and impact to the Chesapeake Bay, to include targeted watershed approach		DEP, SCC, PDA	Chesapeake Bay	Beginning July 2020					
2.3.1F	Increase technical assistance available to landowners interested in implementing riparian forest buffers.	Create both new Commonwealth staff positions and new positions at partner organizations, and increase entrepreneurial opportunities for forest buffer work.	DCNR, PDA, DEP, SCC, DCED, etc.	Chesapeake Bay	Ongoing	Funding, overhead, space, capacity, available candidates, on-boarding process, hiring process, etc.				
2.3.2F	Increase Urban Forestry Technical Assistance Available to Communities and Citizens.	Fund positions within the Commonwealth system and with partner organizations.	DCNR, TreePennsylvania, Penn State Extension, PHS, etc.	Chesapeake Bay	Ongoing	Funding, overhead, space, capacity, available candidates, on-boarding process, hiring process, etc.				
2.3.3F	Create a turf-conversion technical assistance program.	Identify existing subject matter experts in native grassland and meadow establishment to evaluate and design a new program, technical guidance/specifications, etc. then create new Commonwealth positions to provide technical support to landowners.	DCNR, Alliance for the Chesapeake Bay, Pheasants Forever, PGC, TreePennsylvania, PSU, etc.	PA Bay-wide	By 2022	Creating a new program-start-up costs, time, approvals, budgets, etc.				
2.3.4F	Provide informed technical assistance for stream and wetland restoration projects to ensure they are completed in an adequate, reportable manner.	Ensure that county and agency field staff are trained to support potential creditable wetland restoration opportunities. Integrate trainings into existing, well-attended courses.	NRCS, CCDs, SCC, PDA, DEP, DCNR, TNC, and other NGOs.	PA Bay-wide	Ongoing	Training, staff capacity, etc.				

<b>2.3.5F</b>	Expand the PFBC Stream Restoration Initiative, implementing stream restoration projects resulting in load reductions with habitat co-benefits, to counties in the southcentral region of the state, starting with one or more of the four pilot counties to include Adams, Franklin, Lancaster and York.	Expand model in Northcentral Region and work with partners in Franklin County to start a similar initiative in the Southcentral Region. This starts with the creation of new positions within the PFBC.	DEP, PFBC	NC, SC regions	January 2020	EPA diverted funds to PFBC in order to hire additional staff.				
<b>2.3.1S</b>	Complete revisions to the Pennsylvania Stormwater BMP Manual		DEP, Villanova University and subcontractor	Statewide	2021					
<b>2.3.1W</b>	Wastewater Plant Performance Technical Assistance	Perform enhanced technical assistance to wastewater treatment facilities to support reduced nutrient loadings from these facilities.  DEP reports progress every 6 months to EPA for grant outputs and outcomes.	DEP	Chesapeake Bay	December 2020					
<b>2.3.1W(i)</b>	Wastewater Plant Performance Technical Assistance	Purchase of equipment and supplies to provide enhanced technical assistance and perform servicing and calibration of equipment	DEP		September 2021					
<b>2.3.1W(ii)</b>	Wastewater Plant Performance Technical Assistance	Provide training related to reducing nutrient loads for wastewater treatment facility staff for a total of eight facilities			September 2021					

**Priority Initiative 4: Reporting and Tracking**

**Section 2, State Actions, Programmatic and Narrative Commitments**

<b>2.4.1</b>	Pass legislation to revise Pennsylvania's Right to Know Law to allow for additional confidentiality of landowner records.				2020-2021 Legislative Session					
<b>2.4.2</b>	Develop a planning and prioritization tool for use in the development and refinement of the CAPs.	A final tool available to county planning teams for use in the prioritization and tracking of practices and future planning	DEP, EPA, Chesapeake Conservancy	Chesapeake Bay	2020					
<b>2.4.3</b>	Work with the Chesapeake Bay Program Partnership, Water Quality Goal Implementation		DEP, EPA, Chesapeake Bay	Chesapeake Bay	Begin March 2020					

	Team, to elicit support for a joint remote sensing project with other jurisdictions		Program Partnership							
2.4.4	Continue enhancements to PracticeKeeper to capture agricultural and other source sector BMPs as well as compliance and inspection tracking and reporting.		DEP	Statewide	Ongoing					
2.4.5	Update the Pennsylvania BMP Verification Plan and Quality Assurance Program Plan (QAPP)		DEP, EPA	Chesapeake Bay	Annually, as needed					
2.4.6	Work with EPA and the Chesapeake Bay Program Partnership to enhance the existing crediting protocols for programs and practices that improve water quality in Pennsylvania not currently getting full credit in the Chesapeake Bay Watershed Model.	Finalized crediting protocol that considers all aspects of practices and programs not currently getting credit in the Chesapeake Bay Watershed Model that improve water quality in Pennsylvania. This includes but is not limited to compensatory mitigation, land conservation practices related to mine reclamation, dairy precision feeding, etc.	DEP, Bay Program Partnership		January 2021	Buy in from the Chesapeake Bay Program Partnership				
2.4.7	Install additional monitoring station(s) and begin to collect “real-time water quality data on the Susquehanna River to further document the story of progress made by Pennsylvania’s efforts to restore local streams and the Chesapeake Ba as part of implementation of the Phase 3 WIP	Monitoring station(s) and water quality results.	DEP Bureau of Clean Water	Susquehanna River	January 2021			1 person \$600,000		
2.4.8	Updates to the Nutrient Credit Trading Program – Nutrient Trading Tool	Incorporate performance-based credit trading tool through the Chesapeake Bay Nutrient Trading Tool (CBNTT) for transparent, interactive, site-specific, and regionally consistent methodology linked to the Chesapeake Bay modeling tools, for calculating nutrient credits that can be generated from nonpoint sources and used by point sources to	DEP Bureau of Clean Water	Chesapeake Bay	Beginning January 2020					

		<p>meet NPDES permit obligations in a cost-effective way</p> <p>More detail can be found in DEP's workplan for the Chesapeake Bay Implementation Grant. DEP reports progress every 6 months to EPA for grant outputs and outcomes.</p>								
<b>2.4.8(i)</b>	Continue to implement 3:1 trading ratio for nonpoint source (NPS) credit generation and trading until performance-based or other method-based tool (e.g. CBNTT) is established	This interim policy has been in use and is documented in the Phase 2 WIP Nutrient Trading Supplement found on DEP's Nutrient Trading website	DEP Bureau of Clean Water	Chesapeake Bay	Ongoing					
<b>2.4.9</b>	Continue to work with the Federal Facilities Workgroup and Federal Facilities to report BMPs installed and maintained and finalize local planning goals		EPA, DEP, DoD	Chesapeake Bay	Ongoing					
<b>Section 2, State Actions, Numeric Commitments</b>										
<b>2.4.1A</b>	Work with the Chesapeake Bay Program Partnership to establish a creditable practice or combination of practices for implementation of advanced soil health strategies or plans on farms in the Chesapeake Bay Watershed Model for future crediting of these initiatives. Once established as a practice or set of practices that can be credited for progress in the model, commit additional funding or the technical and financial assistance necessary to implement these practices.		DEP, PDA, SCC		January 2021	Buy in from the Chesapeake Bay Program Partnership				
<b>2.4.2A</b>	Expand reporting of dairy precision feeding	Assess and report implementation of dairy precision feeding for 175,000 Animal Units (approximately 152,000 milking cows)	PDA, Dairy Co-ops, PACS Program, Dairy Nutritionists, PA Dairyman's Assoc., CDs, NRCS		December 2025	Voluntary program. Need to have the ability to track and report what dairy farmers are already doing.				
<b>2.4.3A</b>	Expand reporting of Enhanced Nutrient Management	64,640 acres with no manure applied would be managed based on a nitrogen and phosphorus based nutrient management plan;	4R Nutrient Stewardship Alliance, PACS, CCAs, CDs, SCC, DEP		December 2025	Voluntary program. Need to have the ability to track and report what farmers are already doing.				

		<p>64,640 acres with no manure applied would be managed with nutrient management plans to meet nitrogen and phosphorus requirements as well as supplemental practices based on rate, timing, and placement for nitrogen and phosphorus.</p> <p>Tracking of acres with manure applied, where the land would be managed with nutrient management plans to meet nitrogen and phosphorus requirements as well as supplemental practices based on rate, timing, and placement for nitrogen and phosphorus</p>								
<b>2.4.4A</b>	Expand reporting of grass buffers	50,000 acres of land adjacent to streams for establishment of grass buffers at least 35 feet in width	NRCS, DEP, CDs		December 2025	Costs associated with on-site inspection to determine grass buffers; use of aerial imagery a potential				
<b>2.4.5A</b>	Inventory existing agricultural BMPs and BMP needs through survey, agricultural planning, and inspection programs, focusing on geographic areas through the Tiered approach		PDA, SCC, DEP, CDs, Penn State Extension, NRCS, USGS, EPA		Beginning Spring 2020					
<b>2.4.1F</b>	Ensure adequate tracking of partner-implemented forestry BMPs including forest buffers, tree canopy, conservation landscaping, urban forest expansion, stream wetland restoration.	Develop mechanism to capture partner reported and privately funded buffers and other BMPs, with appropriate QA/QC processes, enabling those BMPs to be properly credited.	DEP, DCNR, PDA, SCC, EPA, PACD, NGOs, Farm Organizations, NRCS, PSU	PA Bay-wide	Ongoing	QA/QC of partner data, system access, etc.				
<b>2.4.2F</b>	Celebrate successful implementation and maintenance of forestry BMPs through reporting successful efforts.	Generate broad understanding and acceptance of watershed restoration efforts and how they improve quality of life in PA communities through reporting successful efforts, resulting in a greater appetite for forestry and all BMPs. Broader	All agencies and partners.	PA Bay-wide	Ongoing	Report generation, digestible messaging, continual messaging, etc.				



		acceptance and appetite for these BMPs will make outreach and implementation less time-intensive, less expensive processes.								
<b>2.4.1S</b>	Collect Municipal Separate Storm Sewer System (MS4) BMP data using the new reporting systems for electronic submission for annual reports and inspections	Implement use of MS4 e-Inspection application. Complete e-reporting system for annual reports by December 2020	DEP, MS4s	Statewide	2020					
<b>2.4.2S</b>	Initiate and collect stormwater BMP data from other DEP programs implementing provisions of the Chapter 102 regulations, to include required post-construction stormwater management.			Statewide	2020					
<b>2.4.3S</b>	Continue to track MS4 PRP submission, review, and approval.	Internal report is updated and maintained on a quarterly basis and provided to regional staff as well as DEP executive team	DEP Bureau of Clean Water		Ongoing					
<b>2.4.1W</b>	Explore the feasibility of developing a GIS based online monitoring and reporting program that municipalities can use to report on-lot system operation and maintenance.		DEP							

**Section 3. Countywide Actions**

<b>3.4.1</b>	Track and report progress in Phase 3 WIP planning and implementation in all counties.	Development of Countywide Action Plans (CAPs) in all counties in Pennsylvania's Chesapeake Bay Watershed.	DEP, Local planning leaders, External Coordinators	All Counties in CBWS	Phase 1 Begins July 2019 Phase 2 Begins Feb 2020	State staffing support Internal and External Coordination				
<b>3.4.2</b>	Update reductions in the County Planning Progress template upon completion of each county plan.	Completion of Countywide Action Plans (CAPs) in all counties in Pennsylvania's Chesapeake Bay Watershed.	DEP, Local planning leaders, External Coordinators	All Counties in CBWS	Phase 1 Begins January 2020	State staffing support Internal and External Coordination				
<b>3.4.3</b>	Track and report progress to continue implementation of the Phase 3 WIP State Numeric Commitments described in Section 4, State Actions in the counties with minimal reductions.	Completion of Countywide Action Plans (CAPs) in all counties in Pennsylvania's Chesapeake Bay Watershed.	DEP, Local planning leaders, External Coordinators	All Counties in CBWS	Phase 2 Begins August 2020	State staffing support Internal and External Coordination				
<b>3.4.4</b>	Amend the Phase 3 WIP to incorporate the additional CAPs that are developed (Phase 1 and 2)	Completion of Countywide Action Plans (CAPs) in all counties in	DEP	Phase 1: Tier 2 Counties	Phase 1: December 2020	State staffing support				

		Pennsylvania's Chesapeake Bay Watershed		Phase 2: Tier 3 and 4 Counties	Phase 2: December 2021	Internal and External Coordination				
<b>Priority Initiative 5: Compliance</b>										
<b>Section 2, State Actions, Programmatic and Narrative Commitments</b>										
<b>2.5.1</b>	Pass the Fertilizer Bill to achieve the identified nutrient reductions on urban and agriculture lands.				2019-2020 Legislative Session					
<b>2.5.2</b>	Review, consider and potentially incorporate a revised Phosphorus Index into the planning requirements for land application of biosolids.	Incorporate revised P index tool into future nutrient management planning efforts where approved for use	SCC, Penn State, DEP, NRCS	Statewide	July 2020					
<b>2.5.3</b>	Develop State Agency nutrient reduction planning goals and the associated Action Plans for meeting those planning goals for the installation of practices on lands owned and maintained by state agencies.	Completed State Agency Action Plans for the reduction of nutrients on lands owned and operated by state agencies.	DEP, DCNR, Other Agencies responsible for the management of state lands, Governor's Office	Watershed-wide	January 2021					
<b>Section 2, State Actions, Numeric Commitments</b>										
<b>2.5.1A</b>	Implement NPDES Concentrated Animal Feeding Operation (CAFO) Program Delegation	Permit 100% of all CAFOs (350+ operations in Chesapeake Bay Watershed); Inspection metrics and results are provided to EPA annually per the required Compliance Monitoring Strategy. EPA also requires NPDES permitting and compliance information to be provided by DEP for ICIS database inclusion.	DEP		Ongoing					
<b>2.5.2A</b>	Complete complaint follow-up for CAFO and non-CAFO facilities		DEP, SCC, CDs		Ongoing					
<b>2.5.3A</b>	Implement Chesapeake Bay Agriculture Inspection Program, Phase 1, with an emphasis on meeting state planning requirement on non-CAFO operations.	Inspect 10% of the agricultural acreage annually. More information can be found in our Standard Operating Procedure published on DEP's website. Additionally, progress is reported to EPA every 6 months per the Chesapeake Bay Regulatory and Accountability Program grant.	DEP, CDs	Chesapeake Bay	Ongoing					

<b>2.5.4A</b>	Implement Chesapeake Bay Agriculture Inspection Program, Phase 2 Pilot, with an emphasis on meeting both state planning and implementation requirements on non-CAFO operations.		DEP, SCC, CDs, NRCS, Private Consultants	Chesapeake Bay	Beginning July 2020	Available funding for Technical Assistance and construction of BMPs remains a concern.				
<b>2.5.1S</b>	Complete the Pollutant Reduction or Total Maximum Daily Load Plan Reviews for the 2018 Municipal Separate Storm Sewer System (MS4) permits	Complete technical review and issue permits	DEP, MS4 permittees	Statewide	2020	MS4s not addressing DEP review comments, staff shortages				
<b>2.5.2S</b>	Develop the 2023-2028 NPDES MS4 Permit	In the development of this permit, provide opportunities for input from stakeholders, including but not limited to the Phase 3 WIP Stormwater Workgroup, as part of the normal public participation process.	DEP	Statewide	2019 through 2022					
<b>2.5.3S</b>	Continue to implement the NPDES Municipal Stormwater Program Delegation, to include permitting, compliance, inspection, and enforcement.	Inspection metrics and results are provided to EPA annually per the required Compliance Monitoring Strategy. EPA also requires NPDES permitting and compliance information to be provided by DEP for ICIS database inclusion.	DEP	Statewide	Ongoing					
<b>2.5.4S</b>	Develop the NPDES Industrial Stormwater Permit		DEP	Statewide	2019 through 2021					
<b>2.5.5S</b>	Continue to implement the NPDES Industrial Stormwater Program Delegation, to include permitting, compliance, inspection, and enforcement.	Inspection metrics and results are provided to EPA annually per the required Compliance Monitoring Strategy. EPA also requires NPDES permitting and compliance information to be provided by DEP for ICIS database inclusion.								
<b>2.5.6S</b>	Continue to implement the NPDES Construction Stormwater Program Delegation, to include permitting, compliance, inspection, and enforcement.	Pennsylvania's Chapter 102 requires NPDES permitting for an acre or more of earth disturbance related to construction activities. The requirements also include	DEP	Statewide	Ongoing					

		post-construction stormwater management on all permitted sites. Inspection metrics and results are provided to EPA annually per the required Compliance Monitoring Strategy. EPA also requires NPDES information to be provided by DEP for ICIS database inclusion.								
2.5.1W	Continue to implement the NPDES Sewage and Industrial Waste Program Delegation, to include permitting, compliance, inspection, and enforcement	Inspection metrics and results are provided to EPA annually per the required Compliance Monitoring Strategy. EPA also requires NPDES permitting and compliance information to be provided by DEP for ICIS database inclusion.	DEP	Statewide	Ongoing					

**Phase 3 Watershed Implementation Plan (WIP) Planning and Progress Reporting Template**

**Each county-based local area will use this template to identify:**

1. Inputs – These are both existing and needed resources, public and private, to implement the identified priority initiative. These include both technical and financial resources, such as personnel, supplies, equipment and funding.
2. Process – what is each partner able to do where and by when. These are the action items listed under each priority initiative.
3. Outputs and outcomes – both short and long-term. These are the priority initiatives identified by each county. The performance targets are the intermediate indicators that will measure progress.
4. Implementation challenges – any potential issues or roadblocks to implementation that could impede outputs and outcomes.

**Asterisk:** Place an asterisk next to the action number(s) for action items that appear in both the County Planning and Progress Template and the Programmatic Recommendations Template.

**For each Priority Initiative or Program Element:** Use the fields, as defined below, to identify the inputs and the process that will be followed to achieve each priority initiative. This is the “who, what, where, when and how” of the plan:

**Description** = What. This may include programs that address prevention, education, or as specific as planned BMP installations that will address the Priority Initiative. A programmatic or policy effort will require some ability to quantify the anticipated benefits which will allow calculation of the associated nutrient reductions.

**Performance Target** = How. This is an extension of the Description above. The Performance Target details the unique BMPs that will result from implementation of the Priority Initiative and serves as a benchmark to track progress in addressing the Priority Initiative. Performance Targets may be spread across multiple Responsible Parties, Geographies, and Timelines based on the specifics of the Initiative.

**Responsible Party(ies)** = Who. This is/are the key partner(s) who will implement the action items through outreach, assistance or funding, and who will be responsible for delivering the identified programs or practices.

**Geographic Location** = Where. This field identifies the geographic range of the planned implementation. This could extend to the entire county or down to a small watershed, based on the scale of the Priority Initiative, range of the Responsible Party, or planned funding/resources. *NOTE: Resource limitations alone should not limit potential implementation as additional funding may become available in the future.*

**Expected Timeline** = When. Provide the expected completion date for the planned activity. This should be a reasonable expectation, based on knowledge and experience, that will aid in tracking progress toward addressing the Priority Initiative.

**Resources Available: Technical & Funding** = This field will note technical and financial resources secured/available to implement the program (Description). This is the total of the resources identified in the County Resources Inventory Template below allocated to the priority initiative as a whole; or, if available, to each action.

**Resources Needed: Technical & Funding** = This field will note technical and financial resources needed/outstanding to implement the program (Description). This is the total of the additional resources projected and identified as needed in the County Resources Inventory Template below allocated to the priority initiative as a whole; or, if possible, to each action.

**Potential Implementation Challenges/Issues** = This field will note challenges and issues that may delay program implementation (Description).