

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

- *Progress Reporting Period: January 1, 2021 – December 30, 2021 (Progress to Date for 2020-2021)*
- *Milestone Reporting Period: January 1, 2022 – December 30, 2023 (Milestone Adjustments for 2022-2023)*
- ***Progress Reporting Period: January 1, 2022 – December 30, 2022 (Progress to Date for 2020-2022)***

Action #	Description	Performance Target(s) and 2022-2023 Updates	Responsible Party(ies) and Partnerships	Geographic Location	Expected Timeline	Potential Implementation Challenges or Recommendations	Resources Available Technical and Financial	Resources Needed Technical and Financial	Progress to Date (2020 – 2021 - 2022) and Milestone Adjustments (2022 – 2023) (2022 Progress Updates HIGHLIGHTED)
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Priority Initiative 1: Communications and Outreach

Section 2, State Action, Numeric Commitments

2.1.1A	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				<p>2020 Update: All state agencies, WIP action leaders and partner organizations continue to communicate the message and the availability of funding (technical or financial). This BMP is encouraged and emphasized. PA has invested significant resources through the REAP tax credit program to assist PA farmers in purchasing No-till equipment.</p> <p>2021 Update: All state agencies and partner organizations continue to communicate the message and the availability of funding (technical or financial). This BMP is encouraged and emphasized. As shown in the Numeric Milestones, submitted progress through 2021 shows an increase in reported no-till. PA has invested significant resources through the REAP tax credit program to assist PA farmers in purchasing No-till equipment. In 2021, \$3.5 million in tax credits were awarded for no-till equipment through REAP.</p> <p>The PA No Till Alliance continues to assist in education/outreach/training, etc. See https://panotill.org/</p>
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									<p>2022 Update: REAP funding continues to provide producers with funding for no-till equipment. In addition, the Pennsylvania Clean Streams Fund was funded by the legislature and signed by the Governor as part of the FY 2022-23 General Fund State Budget. From this, the Pennsylvania Agricultural Conservation Assistance Program (ACAP) was created, which provides \$154 million in funds for best management practices on farms statewide. The first apportionment of funds to county conservation districts is set to occur in January 2023. It is anticipated that conservation districts will enter delegation agreements in January 2023.</p>
2.1.2A	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.			<p>2020 Update: All state agencies, WIP action leaders and partner organizations continue to communicate the message and the availability of funding (technical or financial). This BMP is encouraged and emphasized. REAP made some changes to the cover crop BMPs for FY 2019-20 and beyond. Also, Cover Crops are eligible for 90% Tax Credit in any area covered by an agricultural TMDL.</p> <p>2021 Update: All state agencies and partner organizations continue to communicate the message and the availability of funding (technical or financial). This BMP is encouraged and emphasized. As shown in the Numeric Milestones, submitted progress through 2021 shows an increase in reported cover crop acres. REAP provides that Cover Crops are eligible for 90% Tax Credit in any area covered by an agricultural TMDL. In 2021, \$210,500 was awarded in tax credits for cover crops and roller/crimpers thru the REAP tax credit program.</p>

								<p>Nearly 400 acres of cover crops were planted last fall utilizing \$13,109 of CEG funds.</p> <p>2022 Update: Legislative passage of Agricultural Conservation Assistance Program (ACAP).</p> <p>The Pennsylvania Clean Streams Fund was funded by the legislature and signed by the Governor as part of the FY 2022-23 General Fund State Budget. From this, the Pennsylvania Agricultural Conservation Assistance Program (ACAP) was created, which provides \$154 million in funds for best management practices on farms statewide. The first apportionment of funds to county conservation districts is set to occur in January 2023. It is anticipated that conservation districts will enter delegation agreements in January 2023. It is anticipated that ACAP funding will include technical and financial assistance for cover crops. It is anticipated that conservation districts will enter delegation agreements in January 2023.</p> <p>DEP also worked with Penn State, Capital RC&D, and CBPO to create a method using the Voluntary Producer Survey and the Transect Survey better account for cover crop type and planting / harvesting method. This alternative method was approved by the Chesapeake Bay Agriculture Workgroup in November 2023 and will be applied in select county(ies) for 2022 numeric reporting.</p>
2.1.3A	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.		<p>2020 Update: All state agencies, WIP action leaders and partner organizations continue to communicate the message and the availability of funding (technical or financial). This BMP is encouraged and emphasized</p> <p>2021 Update:</p>

								<p>All state agencies and partner organizations continue to communicate the message and the availability of funding (technical or financial). This BMP is encouraged and emphasized. As shown in the Numeric Milestones, submitted progress through 2021 shows an increase in reported Prescribed Grazing acres. Reporting and tracking of implementation of the NRCS 528 Prescribed Grazing Plan and Resource Improvement Practice criteria remains a challenge.</p> <p>In 2021, \$110,000 was award in tax credits for Pasture Related BMPs form the REAP Tax Credit Program.</p> <p>2022 Update: The Pennsylvania Clean Streams Fund was funded by the legislature and signed by the Governor as part of the FY 2022-23 General Fund State Budget. From this, the Pennsylvania Agricultural Conservation Assistance Program (ACAP) was created, which provides \$154 million in funds for best management practices on farms statewide. The first apportionment of funds to county conservation districts is set to occur in January 2023. It is anticipated that rotational grazing and pasture management projects will be included for ACAP funding.</p>
2.1.4A	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			<p>2020 Update: Initial call held with EPA permitting, compliance, and agriculture staff on November 24, 2020 to discuss the Key Areas to Address in EPA’s Milestone Evaluation.</p> <p>2021 Update: DEP and SCC meet with EPA CBPO and Water Division staff on a quarterly basis to discuss WIP progress. DEP staff also meets with EPA CBPO on a bi-weekly and/or monthly basis to discuss technical assistance needs as well as model process needs. DEP and SCC responded to</p>

								<p>informal questions regarding Pennsylvania’s agricultural programs submitted by EPA Water Division in written format as well as via virtual conference call. In 2022, the EPA Animal Agriculture Programs Assessment will be conducted.</p> <p>2022 Update: DEP and SCC met with EPA CBPO and Water Division staff on at least a quarterly basis, if not more frequently. However, meetings with EPA agricultural staff were primarily due to the EPA Animal Agriculture Programs Assessment and the CAFO General Permit (PAG-12) and not held on a regular, quarterly basis. DEP and SCC has participated in multiple ad-hoc meetings with EPA , such as those related to Infrastructure funding and other Chesapeake Bay grants, CAST and other technical issues, Management Board office hours with EPA CBPO, and the PA Animal Agriculture Programs Assessment. Bi-weekly meetings were held with CBPO and DEP / SRBC Technical Team throughout the year.</p>
2.1.5A	Hire 2 Conservation District Field Representatives (CDFRs) in the Northeast Region, providing operational and liaison assistance to conservation districts	CDFRs provide communication, liaison, and operational support to conservation districts; these CDFRs will be engaged in Chesapeake Bay-related restoration activities and efforts.	DEP	Northeast Counties	July 2022			<p>2022 Update: Two CDFRs were hired by July 2022, providing assistance and support to the northeast counties, including those within the Chesapeake Bay watershed.</p>
2.1.6A	Hire 1 Conservation District Field Representatives (CDFRs) in the Northcentral Region, providing operational and liaison assistance to conservation districts	CDFRs provide communication, liaison, and operational support to conservation districts; this CDFR will be engaged in Chesapeake Bay-related restoration activities and efforts.	DEP	Northcentral Counties	March 2023			<p>2022 Update: This position was reposted and expected to fill by March 2023.</p>
2.1.7A	Hire 2 Conservation District Field Representatives (CDFRs) in the Southcentral Region, providing	CDFRs provide communication, liaison, and operational support to conservation districts;	DEP	Southcentral Counties	July 2023			<p>2022 Update: Two CDFRs were hired by December 2022, providing assistance and support to the southcentral counties.</p>

	operational and liaison assistance to conservation districts	these CDFRs will be engaged in Chesapeake Bay- related restoration activities and efforts.						
2.1.1F	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 Continue implementation through 2025	Coordination, scheduling, lack of funding for marketing/communications/outreach/education, etc.		<p>2020 Update: DCNR, in cooperation with its partners via the RFBAC (Riparian Forest Buffer Advisory Committee), launched a two-fold outreach effort in June 2020 that included a direct mailing to riparian area landowners and a public media campaign: https://www.dcnr.pa.gov/Conservation/Water/RiparianBuffers/BufferMyStream/Pages/default.aspx Collaboration continues with RFBAC and DCNR, and has discussed with PA Farm Bureau opportunities to enhance outreach and communications with PA farmers.</p> <p>2021 Update: DCNR continues to work on the Buffer My Stream outreach campaign that was launched in 2020, finding funding to implement projects that have resulted from that outreach. DCNR continues to collaborate with the RFBAC to share outreach materials developed and is now partnering with Chesapeake Bay Foundation (CBF) as they begin outreach work on the K10 marketing campaign with the firm SWELL, using lessons learned from Buffer My Stream. As shown in the Numeric Milestones, submitted progress through 2021 shows an increase in reported forest buffers in fenced riparian areas.</p> <p>DCNR has not yet followed up with Farm Bureau to partner on continued outreach, due to a shortage of implementation funding in 2021. However, DCNR intends to reinvigorate this effort as soon as additional implementation funds are ready to disburse. DCNR felt it would be a detriment to the program and reputation of buffers as a practice to conduct outreach without the funding to follow-through with implementation.</p>

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2.1.2F	Implement a communication/outreach program to engage a variety of turf owners to plant trees and meadows on their properties.	5K acres of "Urban Forest Expansion" (turf to trees) + 5K acres of "Conservation Landscaping" (turf to meadow).	PRPS, DCNR, DEP, agencies and partners, municipalities and parks, etc.	Chesapeake Bay	By 2023	Brand new program- Coordination, scheduling, lack of funding, etc.		<p>2020 Update: DCNR, in cooperation with its partners, formed a new Lawn Conversion Advisory Committee in early 2020. This committee includes a variety of partners and stakeholders who will work together to inform future outreach and communications efforts. DCNR also launched a dedicated lawn conversion website in 2020 https://www.dcnr.pa.gov/Conservation/Water/LawnConversion/Pages/default.aspx, and has dedicated a staff person to coordinate this work.</p> <p>2021 Update: DCNR continues to work with the LCAC to develop outreach materials and a DIY guide to small lawn conversion projects. Some outreach materials will be ready by the end of 2021. But developing a steady stream of implementation funding for</p>

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2.1.3F	Communicate the importance and values of forests and farmland to facilitate and encourage	Increase conserved lands both in the headwaters of the PA Chesapeake Bay	DCNR, DEP, PALTA, etc.	Chesapeake Bay	By 2023	Coordination, scheduling, lack of funding.		<p>2020 Update: DCNR Bureau of Forestry celebrated its 125th anniversary in 2020; finalized the statewide Forest Action Plan, and is</p>

	state and local land conservation programs.	watershed and near developing areas.							<p>currently drafting a revised strategic plan with a 30-year planning horizon. As part of these planning efforts, DCNR conducted public polling on the importance of forests to people, and will incorporate these results into future work.</p> <p>2021 Update: DCNR continues to engage in numerous communications and outreach events and methods around the importance of forests and conservation, including social media posts <i>Good Natured Pennsylvanians</i>, newsletters such as <i>the Resource</i>, tours, meetings, and other events. Engaging state and local leaders in buffer planting events, including human health benefits: https://www.media.pa.gov/pages/DCNR_details.aspx?newsid=739, https://www.media.pa.gov/pages/DCNR_details.aspx?newsid=748. DCNR’s work initiated several news articles published in The Bay Journal and Pennsylvania Forests. The Forest Action Plan was completed and announced: https://www.media.pa.gov/Pages/DCNR_details.aspx?newsid=770. A Walk In Penns Woods event occurs annually: https://sites.psu.edu/walkinpennswoods/</p> <p>2022 Update DCNR continues all efforts as outlined in the 2020 and 2021 updates, including continuing to finalize the new Bureau of Forestry Strategic Plan, communication and outreach events, <i>Good Natured Pennsylvanians</i>, <i>Resource</i> newsletters, etc. A Walk in Penns Woods events continue to occur annually.</p>
2.1.4F	Emphasize the full range of benefits & co-benefits of stream and wetland restoration to facilitate additional implementation.	Increased acres of wetlands 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.	DEP staff are developing stream restoration training courses for County Conservation District and DEP	Four Wetlands Encroachments & Training Division (WET) staff and \$40 million in annual project funding to facilitate	<p>2020 Update: No additional staff have been added to program complement.</p> <p>The Pennsylvanian’s Guide to Permitting for Watershed Improvement Projects was published in December 2020.</p>

							<p>staff on the Clean Water Academy</p> <p>DEP staff reviews of legacy sediment removal floodplain restoration (FR-LSR) projects that are subject to state and federal regulations including Chapter 102, Chapter 105/106 and Section 401 Water Quality Certifications. Currently approved FR-LSR plans will provide approximately 50 acres of wetland restoration and 35,000 linear feet of stream restoration.</p> <p>Chapter 105/Section 401 WQC revisions currently being reviewed will further support implementation of aquatic resource restoration projects.</p>	<p>project implementation.</p> <p>Eight staff to facilitate development of the banking industry in PA and to begin implementation of the ILF program in 2021.</p> <p>Dedicated funding sources to support demonstration projects, including monitoring and research of those projects.</p>	<p>Program staff participated in CBP’s efforts to improve stream and wetland restoration definitions and crediting for Legacy Sediment Removal (LSR) projects (2020 Consensus Recommendations to Improve Protocols 2 and 3 for Defining Stream Restoration Pollutant Removal Credits.)</p> <p>Reviewed and approved three compensation banking projects completed since last data reporting. Wetland acres and stream linear footage will be reported. Initiation of one In-lieu Fee (ILF) project began in 2020.</p> <p>Compensation crediting guidance and submission of Draft ILF Instrument is to occur at the end of the 2020 reporting period.</p> <p>2021 Update: Compensation crediting guidance and submission of Draft ILF Instrument did not occur by the end of the 2020 reporting period and are still in progress as of 9/29/2021. Program staff continue to work diligently toward the goal of submitting the Draft ILF Instrument by early 2022. As shown in the Numeric Milestones, submitted progress through 2021 shows an increase in reported urban stream restoration, due to increased reporting from MS4 permittees to the Chesapeake Bay Watershed Model.</p> <p>2022 Update: Compensation crediting guidance and submission of Draft ILF Instrument did not occur as expected. Although the program published its final technical guidance on the function-based compensatory mitigation methodology, a major step toward achieving this goal, there remains uncertainty if the program can implement an ILF program without adequate staff capacity. PA has identified this lack of capacity in its 2022 Wetlands “PA State</p>
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									Action Plan,” presented to the Chesapeake Bay Program Management Board in December 2022, along with several other action items relating to building capacity and achieving Bay-wide restoration goals.
2.1.5F	Incorporate outreach as a more fundable activity within C2P2 grants for riparian forest buffers, lawn conversion, and TreeVitalize.	Outreach clearly included as a fundable activity in Round 28.5 and future C2P2 grant rounds.	DCNR	Chesapeake Bay	Begins Spring 2023 or sooner				2022 Update: This is a new milestone for 2022-2023. DCNR had a special fall grant round during the fall of 2022, under the newly expanded Community and Watershed Forestry grant opportunity. In this special round, outreach activities were clearly fundable activity. This will remain in all future regular and special CWF grant rounds for buffers, TreeVitalize, and Lawn Conversion projects funded by DCNR under the C2P2 CWF umbrella.
2.1.6F	Develop aquatic resource restoration training for targeted staff including all DEP staff and County partners	Finalize general overview training module and begin presentations for target audiences.	DEP	Chesapeake Bay Watershed	Training development Fall 2021 with implementation beginning in Fall of 2022	Additional training staff needed. Need outreach and messaging support from other DEP programs to reach target audiences	Wetland program staff and funding for specific subtopic focused modules	Technical and financial	2022 Update: This is a new milestone for 2022-2023. Training modules are being developed for PA’s Clean Water Academy, the first of which is near completion. The plan is to build out a full curriculum that includes several modules into one comprehensive training course. For example, in partnership with Soil Hub, a soils training course entitled “Foundations of Pennsylvania Soils” and, in partnership with LandStudies, “A Case Study – Legacy Sediment Evaluation at Oil Creek” were published to the Clean Water Academy in November 2022. Presentations on aquatic resource restoration were also provided to the conservation districts through the annual Conservation District Watershed Specialist conference.
2.1.7F	Develop mapping resources of dam inventory breach locations for the purpose of targeting legacy sediment impaired wetlands, streams and floodplains	Make database of breached dams available in a publicly accessible GIS application.	DEP	Statewide	Beginning 2022	Making database and mapping results available for public use	Wetland program staff	GIS technology support	2022 Update: This is a new milestone for 2022-2023. This effort is ongoing.

<p>2.1.8F</p>	<p>Develop comprehensive restoration strategies at dam removals, including removal of legacy sediment to restore integrated wetlands, streams and floodplain resources</p>	<p>Improve restoration target development for comprehensive aquatic resource restoration.</p>	<p>DEP</p>	<p>Statewide</p>	<p>Beginning 2022</p>	<p>Conventional dam removal planning and design may not include comprehensive aquatic resource restoration targets</p>	<p>Wetland program staff and Growing Greener funding for project demonstrations</p>	<p>Additional funding for project demonstrations</p>	<p>2022 Update: This is a new milestone for 2022-2023. 2022 Dam Removal Workshop with multiple partners was completed.</p>
<p>2.1.9F</p>	<p>Work with SCC to promote their 2022 Stream Crossing Replacement Policy, Design and Installation Standard, and Technical Manual (cross-benefit with building flood resiliency and climate change resiliency, while installing structures with lowered maintenance costs and improved lifespan)</p>	<p>Promote stream crossing replacement designs that incorporate stream simulation through the structure, promote bank-full width designs to improve flow and aquatic organism passage.</p>	<p>DEP, SCC, PFBC, PSU</p>	<p>Statewide</p>	<p>April 2022</p>	<p>Traditional crossing designs are cheaper and require less scientific study</p>	<p>PSU Center for Dirt and Gravel Roads, SCC dirt and gravel low-volume roads program, and DEP</p>	<p>Cost-Benefit Analysis to demonstrate longevity and lowered maintenance costs provide long-term savings.</p> <p>Outreach to public and private sector, consultants, state and local governments.</p>	<p>2022 Update: This is a new milestone for 2022-2023. In 2022, DEP presented at SCC annual meeting to explain permitting considerations and promote the benefits of bank-full width culvert designs, including improved flood resiliency, lowered maintenance costs, and structure longevity. DEP highlighted inherent flexibility in permitting which allows for the best possible on-the-ground solutions consistent with PA Law.</p>
<p>2.1.1S</p>	<p>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.</p>	<p>Implementation of stormwater BMPs within MS4 PRPs, construction stormwater permits, and developed areas outside of the scope of the permitting programs</p>	<p>DEP, PMAA, CCAP, Conservation Districts, Penn State</p>	<p>Chesapeake Bay</p>	<p>Ongoing</p>			<p>Limitations on the amount of training that can be developed due to current DEP staff levels.</p>	<p>2020 Update: DEP continues to assist MS4s with permit implementation. DEP has worked with Penn State Extension to produce “Urban Stormwater Basics” training courses that will be published to DEP’s Clean Water Academy for public use.</p> <p>The Pennsylvanian’s Guide to Permitting for Watershed Improvement Projects was published in December 2020.</p> <p>2021 Update: DEP continues to assist MS4s with permit implementation. DEP developed guidance on stream restoration crediting (crediting checklists and Clean Water Academy training). Additionally, DEP coordinated with EPA to present a series of MS4 Forums for municipalities located in the Chesapeake Bay Watershed. These forums gave municipalities the opportunity to learn from each other and share lessons learned about BMP project implementation. All of these presentations</p>

								<p>are posted for permittees to reference on Clean Water Academy. As shown in the Numeric Milestones, submitted progress through 2021 shows an increase in reported urban stream restoration, due to increased reporting from MS4 permittees to the Chesapeake Bay Watershed Model. Additionally, MS4 communities receive funds through the Growing Greener Plus and CAP Implementation Grant programs to install BMPs that are identified in Pollutant Reduction Plans and Countywide Action Plans.</p> <p>2022 Update: DEP continues to engage with permittees to provide comments on proposed BMP projects. DEP coordinated with PACD through a "mini-grant" program to develop a series of short training videos on the O&M and inspection of three BMP types. These videos have been posted to Clean Water Academy. The intent of these videos is to provide permittees guidance for assessing the maintenance needs of the BMPs in their PCSM BMP inventories. DEP intends to continue this coordination with PACD as funding and staffing allows.</p>
2.1.2S	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			<p>2020 Update: DEP has been in discussions with partners in Lancaster County for several potential projects that may utilize the flexibilities DEP has provided MS4s to work with the agricultural sector.</p> <p>2021 Update: DEP continues to respond to inquiries from permittees looking to implement BMP projects within the expanded opportunity areas. DEP Southcentral Regional Office has scheduled weekly pre-application meetings for York and Lancaster counties to bring their proposed projects and includes their MS4 permitting chief in those meetings as well as the Waterways and Wetlands Program staff.</p>

								<p>More information regarding the MS4 flexibilities is available under FAQ #69 at: https://files.dep.state.pa.us/Water/BNPNSM/StormwaterManagement/MunicipalStormwater/MS4_FAQ.pdf</p> <p>2022 Update: DEP continues to respond to inquiries from permittees looking to implement BMP projects within the expanded opportunity areas to meet the load reduction obligations of their PRPs.</p>
2.1.3S	Track and incentivize MS4 and nonpoint source coordination and collaboration	<p>Document utilization of MS4 and nonpoint source flexibility through PRPs and Annual Reports</p> <p>Incentivize collaborative approaches through Countywide Action Plan (CAP) development and implementation funding and support</p>	DEP, Chesapeake Bay Counties, MS4s	Statewide	Begins October 2019			<p>2020 Update: MS4s submitted annual reports on or before 9/30/2020 and revisions to PRPs to incorporate flexibilities are possible in the future.</p> <p>2021 Update: DEP strongly supports joint or collaborative efforts for BMP projects to satisfy other MS4 permit obligations. The Collaboration section of DEP's MS4 website was updated this year to include recommendations on developing written agreements to guide collaborations, and list examples of permittees who are part of collaborative efforts. CAP development and implementation has led to strengthened partnerships across sectors.</p> <p>2022 Update: DEP continues to support collaborative efforts for BMP implementation. Any permittee proposing a collaborative project is encouraged to reach out to the appropriate DEP regional office to discuss the collaboration. DEP has formed a stakeholder workgroup to discuss concepts for the next version of the PAG-13 General Permit where incentives for collaboration will be on the agenda.</p>
2.1.4S	Continue dialogue with EPA regarding expanding opportunities for MS4 implementation		DEP, EPA	Statewide	Ongoing			<p>2020 Update: This collaboration with EPA is ongoing.</p> <p>2021 Update:</p>

									<p>DEP continues to have ongoing discussions with EPA on this topic. DEP also has discussed this topic with county CAP leaders and municipal officials.</p> <p>2022 Update: Discussions with EPA on this topic are ongoing. DEP is awaiting the 2020 Census-defined urbanized area (UA) mapping to determine how any changes to the census data will impact the planning area of MS4 permittees in future permit terms.</p>
2.1.5S	Work with partners to develop and implement voluntary Urban Nutrient Management (UNM) Plans.	Identify priority initiative in Countywide Action Plans and work together to develop templates and curriculum, as needed.	Chesapeake Bay Counties, Penn State Extension, Chesapeake Stormwater Network	Chesapeake Bay watershed	Beginning 2022				<p>2022 Update: DEP provided guidance and example Urban Nutrient Management (UNM) Plan templates to local CAP Coordinators in one-on-one meetings to begin the process of incorporating UNM Plans into county nutrient reduction strategies. Multiple counties have drafted UNM Plans as part of the establishment of pollinator meadows from turf and farmland.</p>
2.1.6S	Work with partners to ensure that PA Golf Courses have access to the GCSAA Best Management Practices for Pennsylvania Golf Courses , published in October 2020	Ensure access to the publication and review the publication to identify how golf course activities and implementation of the BMPs can be captured and credited toward annual progress.	DEP, Penn State, EPA CBPO, Chesapeake Stormwater Network	Chesapeake Bay watershed	Beginning 2022				<p>2022 Update: DEP submitted the GCSAA BMP Manual to CBPO for consideration of crediting the BMPs identified in the manual toward nutrient and sediment reductions. Based on feedback provided, there is no current “crosswalk” to credit the implementation of the BMPs (such as Urban Nutrient Management) as identified in the GCSAA BMP Manual, although it was thoroughly vetted by the regulatory agencies prior to publication. EPA announced a partnership with the GCSAA, however further work conducted by the partnership is needed to fully account for golf course and turfgrass management across the watershed.</p>

Section 3, Countywide Actions

3.1.1	Continue to develop and collaborate on communication and outreach strategies to	Webinars and calls to provide overview of WIP, define the expectations, and discuss next steps	DEP, Technical Coordinator, Bay office, Agencies Outreach,	Tier 3 & 4 counties	Ongoing	DEP/state staffing limitations and funding limitations around human resource needs	See Funding and Resources Section, <i>Resources</i>	See Funding and Resources Section, <i>Resources</i>	<p>2020 Update: DEP created DEP Regional CAP Support Teams in the Northeast, Northcentral, and Southcentral regions to aid DEP</p>
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<p>support CAP implementation in all counties, with a particular focus on Tier 3 and 4 counties who have recently completed CAPs.</p>	<p>with Tier 3 & 4 counties. Designed to prepare these counties for CAP implementation, the second phase of the WIP process.</p>	<p>Communication contractor, Communication and Engagement Workgroup, External Contractor, DEP Region CAP Support Teams</p>				<p>Continued participation and engagement of counties due to staffing and funding limitations</p> <p>Funding for CAP implementation</p>	<p><i>Needed Phase 2</i> columns below</p>	<p><i>Needed Phase 2</i> columns below</p>	<p>Chesapeake Bay Office (DEP) in outreach and support to the Tier 3 and 4 Counties. With their support, DEP conducted webinars and extensive outreach to Tier 3 and 4 conservation districts, planning commissions, and county commissioners.</p> <p>The DEP conducted a Region CAP Support Team Workshop to educate DEP region staff on the WIP and CAP project. DEP and the Region CAP Support Teams conduct weekly calls to address concerns and questions that arise from the outreach to the Tier 3 and 4 counties, as well as calls with county leaders.</p> <p>The DEP created an extensive library of resources and courses on DEPs Clean Water Academy that serves as an information and document sharing portal for the Tier 3 and 4 counties.</p> <p>2021 Update: The DEP and the DEP Region CAP Support Teams met with the Tier 3 and 4 counties to secure their participation in the development of a CAP. This led to a 100% participation from the Tier 3 and 4 Counties.</p> <p>The DEP conducted the 2nd Coordinator Training Academy in a fully virtual format due to COVID-19 constraints for the Tier 3 and 4 counties to educate the counties on the Phase 3 WIP, what the CAP development process looks like, what resources are available, and how to write their CAPs.</p> <p>The Tier 3 and 4 FAQs and Coordinator Grant FAQs were expanded to CAP Technical, CAP Grant, and County CAP FAQs, and were utilized as ever-expanding documents where all questions from the counties are addressed.</p> <p>The DEP created three resource email accounts: Pilot and Tier 2 counties, Tier 3</p>
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								<p>and 4 counties, and CAP Grants. This allows the DEP to better track all questions from the counties and maximizes efficiency in response with limited staff resources.</p> <p>DEP developed a CAP Project Tracking spreadsheet to track projects, milestones, and contacts and shares it with internal team members using an easy to access system.</p> <p>DEP maintains and continually updates the extensive library of materials on the CWA. Given the volume of materials available to counties, DEP reorganized the CWA materials for a more user-friendly experience.</p> <p>2022 Update: DEP meets monthly with each Tier 3 and 4 county groupings to discuss implementation project statuses, to problem solve any hurdles that have arisen, and to provide an updates and announcements from DEP.</p> <p>DEP provided Implementation Workshops, organized by DEP Region for the Tier 3 and 4 counties to help counties get set up for successful implementation of their CAPs.</p> <p>DEP Region CAP Support Teams continue to support Tier 3 and 4 counties by facilitating the monthly meetings, assisting with permitting questions, assisting with press announcements, and general topic specific help.</p> <p>The Tier 3 and 4 counties completed their first Annual Progress Report. DEP provided feedback to assist the counties with documenting all of their good work.</p>
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<p>3.1.1(i)</p>	<p>Create and utilize living Frequently Asked Question documents for technical, coordinator, and grant questions from CAP county partners and provide access to CAP coordinators to assist with disseminating information broadly and consistently.</p>		<p>DEP</p>	<p>Chesapeake Bay watershed</p>	<p>Ongoing</p>				<p>2022 Update: DEP created and regularly maintains three (grants, technical, and coordinator) Frequently Asked Questions (FAQ) Documents to assist CAP coordinators. The FAQs are updated with questions that are posed by the counties, as well as by DEP to share consistent messaging and answers. The questions and answers are made generic and go through an internal review process before they are released. Each time an FAQ is updated, it is shared with the county partners and Region CAP Support Teams through an established weekly email update, and is also updated on the CWA Resources Tab.</p>
<p>3.1.2</p>	<p>Conduct outreach via webinars and one-on-one meetings to provide support to the counties through the implementation process.</p>	<p>Tier 3 & 4 county regional groupings will transition to, and begin CAP implementation utilizing their assigned external coordinator, DEP and the DEP Region CAP Support Team.</p>	<p>DEP, Technical Coordinator, Bay office, Agencies Outreach, Communication contractor, Communication and Engagement Workgroup, External Contractor, DEP Region CAP Support Team</p>	<p>Tier 3 & 4 counties</p>	<p>Ongoing</p>	<p>State staffing support No new dedicated funding streams County staffing issues may hinder county abilities to utilize all funds that are available due to staff concerns, based on experience with Pilot and Tier 2 counties.</p>	<p>See Funding and Resources Section, <i>Resources Needed Phase 2</i> columns below</p>	<p>See Funding and Resources Section, <i>Resources Needed Phase 2</i> columns below</p>	<p>2020 Update: The DEP Regional Support Teams and the DEP Chesapeake Bay Office has conducted several outreach meetings with each of the 26 Tier 3 and 4 counties, to present the Countywide Action Planning (CAP) process, answer questions, troubleshoot issues, present materials, and work through next steps. The Susquehanna River Basin Commission (SRBC) conducted meetings with each county to review their Clean Water Technical Toolbox and answer technical questions. DEP has developed several Tier 3 and 4 and Coordinator Grant FAQs to assist the Tier 3 and 4 counties. The Tier 3 and 4 counties have organized into 10 regional groups. Each of these 10 groups will share a coordinator position. Grant applications for each coordinator position have been submitted. 2021 Update: The Tier 3 and 4 counties have completed and submitted their CAPs, with 30 counties completing individual CAPs and 4 counties completing a regional CAP.</p>

									<p>The DEP, with assistance from Consulting with a Purpose, developed a comprehensive timeline with key benchmarks identified to assist the counties with strategically planning through and past the CAP planning process.</p> <p>DEP Chesapeake Bay Office staff established biweekly Touchbase Tuesday webinars designed to meet with the coordinators and county lead entities to provide trainings and opportunities for collaboration. DEP Chesapeake Bay Office and DEP Region CAP Support Teams transitioned from the Touchbase Tuesdays to monthly calls with the county groupings to provide more individualized support as the counties began finalizing their CAPs. These monthly calls will continue through implementation. The Touchbase Tuesday calls are being utilized for larger trainings as needed.</p> <p>The Susquehanna River Basin Commission ran the counties' BMP scenarios through CAST as they developed their CAPs, and provided presentations showing the anticipated results, as well as a comparison to the state WIP workgroup recommendations. These comparisons gave the counties feedback for where they may want to focus their BMP efforts.</p> <p>2022 Update: DEP transitioned the Tier 3 and 4 counties from the biweekly Touchbase Tuesday webinars to the established biweekly Webinar Wednesdays (used by Pilot and Tier 2 counties) as all counties were now in implementation. DEP Watershed Administration and Accountability (WASS) and DEP Region CAP Support Teams conducted monthly calls with all counties/county groupings to discuss</p>
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									<p>implementation project statuses, to problem solve any hurdles that have arisen, and to provide an updates and announcements from DEP.</p> <p>The DEP, with assistance from Consulting with a Purpose, developed a comprehensive timeline with key benchmarks identified to assist the counties with strategically planning through implementation, grants, Annual Progress Reporting and Two-Year Milestone reporting.</p> <p>The Susquehanna River Basin Commission ran the Tier 2 counties' BMP scenarios through CAST as they developed their two-year milestones, and provided presentations showing the anticipated results, as well as a comparison to the state WIP workgroup recommendations. These comparisons gave the counties feedback for where they may want to focus their BMP efforts for the next two years.</p>
3.1.3	CAP implementation across Pilot, Tier 2,3 and 4 counties.	<p>External coordinator designated for each Pilot and Tier 2 county to assist with CAP planning and implementation efforts.</p> <p>2022-2023 Update: there will be an external coordinator designated for each Pilot and Tier 2 county and each Tier 3 and 4 county grouping to assist with CAP progress and implementation efforts. Focus will be on CAP implementation in support of PA's WIP goals. Extensive staff time will be dedicated to WIP/CAP</p>	DEP, Technical Coordinator, Bay office, Agencies, Outreach, Communication contractor, Communication and Engagement Workgroup, External Contractor	Pilot and Tier 2 Counties 2022-23 Update: Pilot, Tier 2, 3 and 4 counties	Begins January 2020	State staffing support Internal and External Coordination limited due to funding limitations for human resources	See Funding and Resources Section, <i>Resources Needed Phase 1 & 2</i> columns below	See Funding and Resources Section, <i>Resources Needed Phase 1 & 2</i> columns below	<p>2020 Update: Pilot Counties have begun implementation of their Countywide Action Plans (CAPs). Counties were able to apply for CAP Implementation Grant Funds to support CAP implementation.</p> <p>Lancaster, York, Cumberland and Franklin County received Conservation Excellence Grant (CEG) funding to support implementation efforts.</p> <p>Community Clean Water Action Plan Coordinators were hired to support implementation. Tier 2 counties each hired a Community Clean Water Action Plan Coordinator to support plan development. Tier 2 counties are in the final stages of finalizing their CAPs.</p>

		<p>project management and coordination to support counties in CAP implementation and to work with state action leaders in supporting this effort. Continued expansion of services outlined in the 2021 Milestone Update.</p> <p>Region CAP Support Teams will continue to support this effort.</p> <p>External coordinators will also continue to be funded.</p>							<p>2021 Update: All counties (Pilot, Tier 2,3,4) have finalized and are implementing CAPs. All counties were eligible to apply for CAP Implementation Grant Funds to support CAP implementation. DEP is providing nearly \$17.4 million in CAP Coordinator and Implementation Grant funds for 2022 calendar year (to include EPA Ag and EJ MEB grant funds and CBRAP funds for BMP Verification).</p> <p>Conservation Excellence Grant (CEG) funding is also available to support implementation efforts in several high loading counties.</p> <p>Community Clean Water Action Plan Coordinators continue to support CAP implementation and state funding has been committed and funding requests submitted by counties for 2022.</p> <p>Transitioned to one-on-one meetings with counties to provide individualized attention.</p> <p>Webinar Wednesdays were held as broader topics were raised for the larger group. 2021 webinars included: Water Quality Monitoring Update; Environmental Finance Center Technical Assistance; BMP Verification Deep Dive with EPA; Growing Greener, Section 319 and NFWF MEB Grant Funding Opportunities; CAP Implementation Grant Guidance; BMP Verification, Round 3.</p> <p>The Tier 3 and 4 FAQs and Coordinator Grant FAQs were expanded to CAP Technical, CAP Grant, and County CAP FAQs, and were utilized as ever-expanding documents where all questions from the counties are addressed.</p> <p>DEP created three resource email accounts for CAP coordination: Pilot and</p>
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									<p>Tier 2 counties, Tier 3 and 4 counties, and CAP Grants. This allows the DEP to better track all questions from the counties and maximizes efficiency in response with limited staff resources.</p> <p>DEP developed a CAP Project Tracking spreadsheet to track projects, milestones, and contacts.</p> <p>DEP maintains and continually updates the extensive library of materials on the CWA. Given the volume of materials available to counties, DEP reorganized the CWA materials for a more user-friendly experience.</p> <p>2022 Update: All counties (Pilot, Tier 2,3,4) are implementing CAP projects. All counties applied for CAP Implementation Grant Funds to support CAP implementation. DEP granted over \$12 million in CAP Coordinator and Implementation Grant funds for 2023 calendar year.</p> <p>One-on-one meetings with counties provide individualized attention and support. Staff are working with state and federal agency partners on county programmatic recommendations to enhance efforts.</p> <p>Webinar Wednesdays continued to address needs across all counties. 2022 webinars included: 03-09-2022 Agriculture BMP Verification – On Site Stagey and Tools 05-11-2022 CAP Implementation Funding Opportunities 06-01-2022 Countywide Action Plan Two-Year Milestone Reporting 06-08-2022 FieldDoc Walkthrough and Update 06-22-2022 Partners, Projects, and Progress - Behind the Scenes in Clearfield, Franklin and Lancaster Counties</p>
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									<p>07-13-2022 Countywide Action Plan Annual Progress Reporting</p> <p>09-28-2022 CAP Grant 2023 Announcement</p> <p>10-12-2022 Using Technology to Assist in Conducting BMP Verification</p> <p>The CAP Technical, CAP Grant, and County CAP FAQs were utilized as ever-expanding documents where all questions from the counties are addressed.</p> <p>Resource email accounts continued to be an important administrative tool for managing work and maximizing efficiency for limited staff across all of Bay counties.</p> <p>DEP utilized the CAP Project Tracking spreadsheet to assure projects across all counties were on track and funds were being spent in the designated 12-18 month timeframe.</p> <p>Trainings were added to the Clean Water Academy.</p>
3.1.4	Seek staffing to support this large-scale coordination and support effort.	<p>An external contractor will work one on one with the pilot counties to begin the implementation of their countywide action plan.</p> <p>Facilitation support and marketing services will continue with Consulting with a Purpose and Water Words That Work in support of extensive WIP and CAP outreach and engagement needs.</p>	DEP, Technical Coordinator, Bay office, Agencies Outreach, Communication contractor, Communication and Engagement Workgroup, External Contractor	Pilot Counties	Begins January 2020	<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, thereby pushing our schedule with Tier 3 and 4 counties back.</p>	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	<p>2020 Update:</p> <p>Each Pilot County and Tier 2 County received \$100,000 in state Environmental Stewardship Funds to hire a Community Clean Water Action Plan Coordinator to support CAP implementation.</p> <p>The Community Clean Water Action Plan Coordinator application has been released for Tier 3 and 4 counties.</p> <p>Two additional Chesapeake Bay Office Coordinators were hired to support efforts.</p> <p>2021 Update:</p> <p>External coordinators have been hired by county partners for each Pilot and Tier 2 county and each Tier 3 and 4 county</p>

								<p>grouping to assist with CAP planning and implementation efforts.</p> <p>Extensive facilitation support and marketing services were utilized in 2021 through contracts with Consulting with a Purpose and Water Words That Work in support of extensive WIP and CAP outreach and engagement needs during planning and implementation. Some examples of these efforts include the 2020 Progress Report Summary and the 2020 Healthy Waters Healthy Communities Annual Report. Both of these documents are published on the Tracking Pennsylvania's Progress website.</p> <p>2022 Update: The Chesapeake Bay Office expanded into the Bureau of Watershed Restoration and Nonpoint Source Management in fall 2022. A Chesapeake Bay Restoration Division was created that includes two sections dedicated to Bay work: Watershed Accountability and Administration and Chesapeake Bay Partnership. Staff enhancements to the Bureau include centralizing region-based Watershed Managers and Conservation District Field Reps who will support Bay efforts.</p> <p>Funding continued to support external county-based CAP coordinators to assist with CAP planning and implementation efforts.</p> <p>Extensive facilitation support and marketing services were utilized in 2022 through contracts with Consulting with a Purpose and Water Words That Work in support of extensive WIP and CAP outreach and engagement needs during planning and implementation. The 2021 Healthy Waters Healthy Communities Annual Report can be found on PA's Plan website. County partners testimonial pieces were published: PADEP-CAP-</p>
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									Testimonial-Handout-06102022 (state.pa.us) and PADEP-CAP-Testimonial-Handout-02192021.pdf (state.pa.us) to provide outreach pieces for county and state partners to use with their stakeholders. Other new informational pieces included “Supporting Local Countywide Action Plan Implementation in Pennsylvania” and “Supporting Local Clean Water Planning in Pennsylvania”.
3.1.5	Delineate and communicate Chesapeake Bay Accountability and Chesapeake Bay Partnership staff roles and responsibilities to county partners for more effective and efficient delivery of services	2022-2023 Update: With the addition of 2 new staff in 2021, DEP will conduct strategic delegation and communication of coordination and project management roles and responsibilities of the 7 total staff members in the two Chesapeake Bay-focused sections.	DEP	Chesapeake Bay watershed	February 2022				<p>2022 Update: This is a new milestone for 2022-2023. Staff enhancements to the Bureau include centralizing region-based Watershed Managers and Conservation District Field Reps who will support Bay efforts.</p> <p>Internal coordinators have been assigned to Tier 1, 2, 3, 4 counties as specific points of contact for CAP issues, questions and reporting.</p> <p>A handout was provided to county partners to provide details of staff roles and responsibilities.</p>

Section 9, Climate Change

9.1.1C	Pennsylvania Climate Impacts Assessment	<p>Reduce an additional 1.81 million pounds of nitrogen and 0.095 million pounds of phosphorus delivered to the Chesapeake Bay due to climate change by 2025.</p> <p>A Climate Impacts Assessment for Pennsylvania is conducted every 3 years, per Act 70 of 2008. The most recent Pennsylvania Climate Impacts Assessment can be found on DEP’s website: Impacts</p> <p>2022-2023 Update: compilation of 2019 GHG Inventory data will begin.</p>	DEP	Statewide	Ongoing				<p>2022 Update: The 2021 Pennsylvania Climate Impacts Assessment was released in May 2021. This is a new milestone for 2022-2023.</p>
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		The next Climate Impacts Assessment is anticipated to be released in 2024.						
9.1.2C	Pennsylvania Climate Action Plan	Reduce an additional 1.81 million pounds of nitrogen and 0.095 million pounds of phosphorus delivered to the Chesapeake Bay due to climate change by 2025. A Climate Action Plan for Pennsylvania is conducted every 3 years, per Act 70 of 2008. The most recent Pennsylvania Climate Action Plan can be found on DEP's website: PA Climate Action Plan	DEP	Statewide	Ongoing			2022 Update: The 2021 Pennsylvania Climate Action Plan was released in September 2021. This is a new milestone for 2022-2023.
9.1.3C	Local Climate Action Program	Reduce an additional 1.81 million pounds of nitrogen and 0.095 million pounds of phosphorus delivered to the Chesapeake Bay due to climate change by 2025. The Local Climate Action Program provides technical assistance to local governments to develop local greenhouse gas inventories and climate action plans. More information about the program can be found on DEP's website: Local Climate Action Program	DEP	Statewide	Began 2020			2022 Update: Currently, 12 local governments are participating in the program for 2022/2023 fiscal year. Draft climate action plans are due from participating municipalities in June 2023. DEP is working to find a partner to take on the program for future years.
9.1.4C	DEP Energy Programs Office (EPO) Clean Energy Program (CEP) Plan	Reduce an additional 1.81 million pounds of nitrogen and 0.095 million pounds of phosphorus delivered to the Chesapeake Bay due to climate change by 2025.	DEP	Statewide	Ongoing			2022 Update: DEP released the CEP Plan in November 2020 and has used the plan to better align Department goals and programs. This is a new milestone for 2022-2023. EPO is developing an update to the CEP Plan, which will identify successes since 2020 and

		The CEP Plan is intended to guide EPO in fulfilling its obligations to support energy conservation and efficiency, advance clean energy technologies, and provide energy security and resilience while improving the environment and health of Pennsylvanians through education, outreach, funding, and technical support. More information about the CEP can be found here: Clean Energy Program Plan							priorities through 2025. The updated CEP is anticipated to be completed by the end of 2022.
9.1.5C	Annual Pennsylvania Greenhouse Gas Inventory	Reduce an additional 1.81 million pounds of nitrogen and 0.095 million pounds of phosphorus delivered to the Chesapeake Bay due to climate change by 2025. The GHG inventory is updated annually, per Act 70 of 2008, and published mid-year on DEP’s website: GHG Inventory	DEP	Statewide	Ongoing	DEP is currently looking for opportunities to shorten the lag time between data availability and report publication.			2022 Update: The 2021 PA GHG Inventory report (2018 data year) is complete. This is a new milestone for 2022-2023. The 2022 PA GHG Inventory report (2019 data year) is complete, published 10/6/22.
Section 10, Communication and Engagement Strategy									
10.1.2	Develop the outreach materials, webinars, templates for letters and mailings and success stories identified by the Communications and Engagement (C&E) 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		As needed		\$200,000		2020 Update: Outreach efforts for C&E Workgroup: DEP’s contractors, Consulting with a Purpose and Water Words That Work, worked with the C&E Workgroup to identify outreach and engagement needs for local partners in different sectors and geographies, and then worked in coordination with the C&E Workgroup to develop county leader invitation to participate letters and documents, webinars and social media campaigns that were used to explain the WIP and CAP efforts. These materials built the

								<p>foundation for outreach and engagement for Tier 1, 2, 3 and 4 outreach.</p> <p>Outreach efforts for CAP county coordinators: DEP maintains a contract with Water Words That Work to provide communication support to the Phase 3 WIP. Water Words That Work has produced communication templates, PPTs, brochures and training to county coordinators to support local efforts. Water Words That Work continues to provide communication support for state lead efforts.</p> <p>DEP Communications Office developed talking points document for integrated messaging at county and state levels. Used by all counties.</p> <p>2021 Update: Extensive facilitation support and marketing services were utilized in 2021 through contracts with Consulting with a Purpose and Water Words That Work in support of extensive WIP and CAP outreach and engagement needs during planning and implementation.</p> <p>DEP's Communications Office provided support through interviews, media events and news releases highlighting Phase 3 WIP and CAP progress and efforts.</p> <p>In April 2021, DEP Chesapeake Bay Office Director participated in the hour-long Chesapeake Bay Summit, hosted by Maryland Public Television and shown on Pennsylvania Public Broadcasting Station.</p> <p>Talking points and presentations were developed and provided through numerous public participation outlets, including meetings hosted by the State Conservation Commission Board of Directors; DEP Agriculture Advisory Board; DEP Water Resources Advisory</p>
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								<p>Committee; DEP Citizens Advisory Council; County Commissioners Association of Pennsylvania; PA Farm Bureau; Chesapeake Bay Program Citizens Advisory Committee; and the Chesapeake Bay Commission.</p> <p>2022 Update: C&E Workgroup disbanded as PA moved from planning into full implementation of its WIP and CAP efforts.</p>
10.1.2A	<p>Utilize facilitation support and marketing services with Consulting with a Purpose and Water Words That Work in support of extensive WIP and CAP outreach and engagement needs.</p> <p>DEP’s Communications Office will provide support through interviews, coordinating media events, and news releases highlighting Phase 3 WIP and CAP progress and efforts.</p>		DEP		Ongoing			<p>2022 Update: This is a new milestone for 2022-2023. Extensive facilitation and marketing services were utilized in 2022 through contracts with Consulting with a Purpose and Water Words That Work in support of extensive WIP and CAP outreach and engagement needs during planning and implementation.</p> <p>DEP’s Communications Office provided support through interviews, media events and news releases highlighting Phase 3 WIP and CAP progress and efforts.</p> <p>The 2021 Healthy Waters Healthy Communities Annual Report can be found on PA’s Plan website. County partners testimonial pieces were published: PADEP-CAP-Testimonial-Handout-06102022 (state.pa.us) and PADEP-CAP-Testimonial-Handout-02192021.pdf (state.pa.us) to provide outreach pieces for county and state partners to use with their stakeholders. Other new informational pieces included “Supporting Local Countywide Action Plan Implementation in Pennsylvania” and “Supporting Local Clean Water Planning in Pennsylvania”.</p>
10.1.3	Finalize the DEP Web-based StoryMap.	Final StoryMap	DEP Communication Office		March 2020		\$20,000	<p>2020 Update: Launched storymap focused on public education during Chesapeake Bay Watershed Awareness Week in June. Promoted via press release, a social media campaign, and stakeholder outreach. Over</p>

								<p>3,500 views since launch. Healthy Waters, Healthy Communities.</p> <p>2021 Update: Completed in 2020 and will be incorporated in the 2022 Integrated Water Quality Report story map in 2022.</p> <p>2022 Update: Incorporated into the 2022 Integrated Water Quality Report story map in 2022.</p>
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	Chesapeake Bay	As needed			<p>2020 Update: DEP worked with the Bay Local Government Advisory Committee and participated in WIP listening sessions conducted by LGAC. Outreach was also conducted with nonprofit partners.</p> <p>WIP Steering Committee Workgroup chairs participated in sector-specific outreach to the agriculture community and webinars were held with local leaders.</p> <p>2021 and 2022 Updates: Completed in 2020</p>
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.	<p>Mailings, newsletters, websites, conferences and workshops of C&E Workgroup are utilized as appropriate to convey the message developed.</p> <p>DEP will continue to publish its informative monthly WIP newsletter, weekly emails to CAP partners, and update the website.</p>	C & E Workgroup members; DEP/DCNR/PDA Communication Offices, DEP	Chesapeake Bay	Between now and 2025			<p>2020 Update: DEP Communications Office launched the Phase 3 WIP News monthly newsletter: a go-to resource for the latest updates at the state and county levels and in funding, data and reporting, and other areas of the Phase 3 WIP effort. Through promotion and outreach, subscriptions have increased from about 90 in June to 278 in December.</p> <p>C&E Workgroup members, as well as WIP action leaders utilized above-mentioned outreach tools in organization publications and mailings (member letters, magazines, newsletters, etc) and on organization websites and presented at meetings and conferences.</p> <p>2021 Update:</p>

								<p>DEP continued to publish a monthly Phase 3 WIP Newsletter, renamed Healthy Waters – Pennsylvania. Partnership. Progress. This collaborative newsletter shares updates and progress from federal, state and county partners, and is utilized to share updates from DEP and announce various funding opportunities for the counties. Anyone can subscribe to receive the electronic newsletter in their inbox or visit the website to see the monthly archive.</p> <p>DEP provided a weekly email update to county CAP coordinators and Action Leaders with up to the moment funding, outreach and training opportunities that are relevant to their CAP work.</p> <p>DEP continually updates the WIP and CAP webpages as new material is developed.</p> <p>2022 Update: DEP continued to publish a monthly Phase 3 WIP Newsletter, renamed Healthy Waters – Pennsylvania. Partnership. Progress. This collaborative newsletter shares updates and progress from federal, state and county partners, and is utilized to share updates from DEP and announce various funding opportunities for the counties. Anyone can subscribe to receive the electronic newsletter in their inbox or visit the website to see the monthly archive.</p> <p>DEP provided a weekly email update to county CAP coordinators and Action Leaders with up to the moment funding, outreach and training opportunities that are relevant to their CAP work.</p> <p>DEP continually updates the Clean Water Academy, WIP and CAP webpages as new material is developed.</p>
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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.	<p>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.</p> <p>Keystone Tree Fund – This fund will go toward DCNR’s tree planting initiatives</p> <p>Clean Streams Fund</p> <p>Growing Greener III</p> <p>Agricultural Conservation Assistance Program (ACAP)</p>	PDA, DCNR, DEP, State Legislature, Governor’s Office		2019-2020 Session			<p>2022 Update: The Pennsylvania Clean Streams Fund was funded by the legislature and signed by the Governor as part of the FY 2022-23 General Fund State Budget. From this, the Stormwater Management Grant program provides \$8.8 million toward grants and reimbursements to counties and municipalities, the Pennsylvania Agricultural Conservation Assistance Program (ACAP), which provides \$154 million in funds for best management practices on farms statewide, \$8.8 million toward the existing Keystone Tree Fund, \$22 million toward a new Clean Water Procurement Program, \$22 million toward the existing Nutrient Management Fund, and \$4.4 million toward the existing Acid Mine Drainage program. The first apportionment of funds to county conservation districts for ACAP is set to occur in January 2023, with \$1.5 million of the additional Nutrient Management funds being provided to conservation districts beginning January 2023 as well. The Stormwater Management grant funds will be rolled into the Growing Greener Plus program, with the solicitation slated to be released Spring 2023 and initial awards made Winter 2023-2024. State agencies are working together to ensure commitment and expenditure of funds are in alignment with the federal requirements for COVID-ARPA, as well as meeting the reporting requirements and deadlines. DEP, PDA, SCC, DCNR, and PENNVEST have been meeting on a monthly basis since September 2022, and will carry that forward through 2023, adding NRCS and NFWF representation to further coordinate funding sources and programs.</p>
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-	Initiate Conservation Excellent Grant Program, to include bundling grants with REAP tax credits and low-interest loans in Tier 1 Counties.	PDA, SCC, DCNR, DEP, PENNVEST, EPA, NRCS, Pilot, Tier 1 and Tier 2 counties, non-profit and private entities		Ongoing Beginning July 2020			<p>2020 Update: The vendor for the Center for Water Quality Excellence has been selected and is Keystone Safety Services, Inc. d/b/a Land Logics Group. Contracts have been finalized and a Notice to proceed was issued on November 12, 2020. Next step is to get the virtual center</p>

<p>profit and private funding programs</p>	<p>Expand funding of REAP tax credits and prioritize in Chesapeake Bay Watershed.</p> <p>Initiate Chesapeake Bay Ag Inspection Program – Phase 2, to include providing cost-share to farmers that are yet to be or have been inspected, in select counties.</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 through Block Grants (CAP Implementation Grants)</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</p>						<p>component up and running which is anticipated by May 2021. Also, between now and May 2021 and beyond, the vendor will be doing outreach at events, assuming those events happen, and appropriate COVID safety protocols can be maintained. The physical center should be opening June/July 2021. The Pilot will focus on Lancaster and York Counties initially.</p> <p>SCC staff continues to work with staff from the Treasury Department to reinvigorate the AgriLink Loan Program. This existing program previously made more than \$5 million in low interest loans, but has been inactive for approximately 8 years due to lack of funding to “subsidize” these linked deposit loans. This discussion was sidetracked in 2020 due to the challenges presented by COVID. PennVEST has also recently expressed an interest in exploring a linked deposit low interest loan program for agricultural BMPs.</p> <p>The SCC is actively implementing its new Conservation Excellence Grant (CEG) program through agreements with Lancaster, York, Cumberland and Franklin Conservation Districts, as well as a pending agreement with Lancaster Farmland Trust and Salisbury Township (Lancaster County) as a public private partnership pilot. Total funding for these five CEG agreements is nearly \$6 million, and the SCC received an additional \$2 million in state funds in November to continue this effort.</p> <p>Pennsylvania DEP announced the Growing Greener Plus awards on December 30, 2020. More than \$16 million has been awarded to projects in the Chesapeake Bay Watershed, with many of those projects focused on agricultural Best Management Practices and forested riparian buffer implementation.</p> <p>2021 Update: PENNVEST continues exploring a linked deposit low interest loan program for agricultural BMPs.</p>
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		<p>Chesapeake Bay Watershed.</p>						<p>In December 2021, the AgriLink Loan Program was relaunched. More information can be found here: https://www.agriculture.pa.gov/Plants_Land/Water/StateConservationCommission/Pages/Agriculture-linked-Low-Interest-Loan-Program-.aspx</p> <p>The Center for Water Quality Excellence funded by PENNVEST is up and running both virtually and with a storefront. 2021 –2022 focused on outreach. CEG: The SCC continues with delegation agreements with seven county conservation districts – Tier 1 - Lancaster and York counties and Tier 2 - Cumberland, Franklin, Bedford, Centre and Lebanon counties for the implementation of the CEG Program.</p> <p>The Lancaster and York county conservation districts have been accepting CEG applications since July 2020. Between July 2020 and September 2021, the LCCD awarded 27 CEG grants totaling \$1,252,434.15. The YCCD awarded 9 CEG grants totaling \$49,247.50.</p> <p>The Cumberland and Franklin county conservation districts began accepting CEG application in January 2021. Between January 2021 and September 2021, the CCCD awarded 4 CEG grants totaling \$427,000. The FCCD awarded 19 CEG grants totaling \$949,640.04.</p> <p>The Bedford and Centre county conservation districts have been accepting CEG applications since March 2021. Between March 2021 and September 2021, the BCCD awarded 1 CEG grant totaling \$250,000. The CCCD awarded 5 CEG grants totaling \$735,000.</p> <p>The Lebanon county conservation district has just been included into the CEG program and is in the process of executing a delegation agreement. LCCD has already been in preliminary talks with 5 operations and expect to have 5 applications ready to be accepted as soon as they can begin accepting applications.</p>
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									<p>All conservation district outreach efforts include posting CEG information on the conservation district’s websites and newsletter and flyers distributed to agricultural support program organization in the counties</p> <p>Lancaster Farmland Trust began a Private Party Partnership with the SCC in October 2020. Ever since the inception LFT has been working with 5 grant recipients totaling \$900,000.</p> <p>Expansion of REAP Program: Since 2019, REAP continues at a \$13 million allocation for tax credits providing a total of \$13 million. Approximately 70% of the annual allocation of tax credits is awarded to eligible producers and projects in the Chesapeake Bay watershed. Applicants from ag-impaired TMDL watersheds (including the Chesapeake Bay) are eligible for a REAP tax credit equal to 90% of out-of-pocket costs for some high-priority BMPs.</p> <p>CEG: The SCC continues with delegation agreements with seven county conservation districts – Tier 1 - Lancaster and York counties and Tier 2 - Cumberland, Franklin, Bedford, Centre and Lebanon counties for the implementation of the CEG Program.</p> <p>The Lancaster and York county conservation districts have been accepting CEG applications since July 2020. Between July 2020 and September 2021, the LCCD awarded 27 CEG grants totaling \$1,252,434.15. The YCCD awarded 9 CEG grants totaling \$49,247.50.</p> <p>The Cumberland and Franklin county conservation districts began accepting CEG application in January 2021. Between January 2021 and September 2021, the CCCD awarded 4 CEG grants totaling \$427,000. The FCCD awarded 19 CEG grants totaling \$949,640.04.</p>
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								<p>watershed. Applicants from ag-impaired TMDL watersheds (including the Chesapeake Bay) are eligible for a REAP tax credit equal to 90% of out-of-pocket costs for some high-priority BMPs.</p> <p>CEG: The SCC continues with delegation agreements with seven county conservation districts – Tier 1 - Lancaster and York counties and Tier 2 - Cumberland, Franklin, Bedford, Centre and Lebanon counties for the implementation of the CEG Program.</p> <p>From January 2022-December 2022, 111 practices were reported as implemented through the CEG program, including but not limited to: animal waste management systems and associated waste transfers, heavy use area protection and roof runoff structures, grassed waterways and diversions, stream crossings and fence, structure for water control, and animal trails and walkways.</p> <p>MEB and IJA: 2022 EPA MEB and MEB IJA funds provided to DEP have been allocated to pilot counties (Lancaster, York, and Franklin) through the existing countywide action plan implementation grant program, awarded on December 1, 2022.</p> <p>Growing Greener Plus and CAP Implementation Grant Programs: At least 50% of the overall funding available has been directed toward the counties within the Chesapeake Bay. CAP implementation grants were awarded to counties on December 1, 2022, with a press release announcing the awards on December 14, 2022. Growing Greener Plus award recipients were notified by December 31, 2022.</p>
2.2.1(ii)	Clean Streams Fund: Implement the Agriculture Conservation Assistance Program (ACAP). ACAP would provide a true	Develop guidelines and allocation methodology; distribute funds in 2023.	SCC, Conservation Districts		Begins Fall 2022			<p>2022 Update: This is a new milestone for 2022-2023. By January 2023, SCC will approve ACAP Program Guidelines and County Allocations. By April 2023, SCC will train</p>

	statewide cost-share program to help implement practices that keep healthy soils and nutrients on the land and out of waterways. Agriculture is an integral part of Pennsylvania's culture, heritage, and economy.							county CD staff on the administration of the ACAP. The Pennsylvania Clean Streams Fund was funded by the legislature and signed by the Governor as part of the FY 2022-23 General Fund State Budget. From this, the Pennsylvania Agricultural Conservation Assistance Program (ACAP) was created, which provides \$154 million in funds for best management practices on farms statewide. The first apportionment of funds to county conservation districts is set to occur in January 2023. It is anticipated that conservation districts will enter delegation agreements in January 2023.
2.2.1(iii)	Clean Streams Fund: Nutrient Management Fund was increased. The majority of this increase will be set aside for Technical Assistance capabilities to implement ACAP and CEG, as well as including some additional funding to CEG.	Develop allocation along with ACAP and CEG program allocations.	SCC, DEP, Conservation Districts		Begins Winter 2022-2023			2022 Update: This is a new milestone for 2022-2023. Proposals include education for technical assistance, financial assistance in CEG and Agri-link, and other priorities of the Commission. \$1.5 million of this additional funding has been allocated in the 2022-2023 fiscal year to go toward the Nutrient Management technician salary increases.
2.2.1(iv)	Clean Streams Fund: Implement the Pennsylvania Clean Water Procurement Program	Develop guidelines and implement funding program.	PennVest, SCC, DEP		Begins Winter 2022-2023			2022 Update: This is a new milestone for 2022-2023. Lead state agencies met multiple times throughout Fall 2022 to discuss program structure and feasibility. Met with MDE multiple times to gather and compare information related to both pay-for-performance programs.
2.2.1(v)	Clean Streams Fund: Implement the Grants/Reimbursements to Counties and Municipalities for Stormwater Management Act (Act 167) Planning and Implementation	Develop grant guidance and determine staffing needs to support Act 167 Plan review and implementation.	DEP		Begins Winter 2022-2023			2022 Update: This is a new milestone for 2022-2023. Staff have met multiple times throughout Fall 2022 to develop guidelines for the stormwater management grants and reimbursements program. Guidelines must be in alignment with Act 167 and Chapter 111, respectively. The requisite forms were submitted to GBO to provide information regarding this new program, as it is funded through COVID-ARPA, and information has

								been received from GBO regarding reporting deadlines and requirements.
2.2.1(vi)	Clean Streams Fund: Continue to implement the Keystone Tree Fund and disburse funding via Riparian Forest Buffer Grants and TreeVitalize Program	Develop grant guidance and other strategies for funding disbursement; incorporate into C2P2 grant solicitation.	DCNR		Begins Summer 2022.			<p>2022 Update: This is a new milestone for 2022-2023</p> <p>DCNR had a special fall grant round in 2022 which is expected to fully expend the Clean Streams Fund allocation of \$8.8 million once awards are announced in early 2023. CWF requirements were fully incorporated into this grant round, and will allow any additional future allocations to the Clean Streams Fund to be incorporated seamlessly into future grant rounds.</p>
2.2.2	Identify and implement the process and develop and implement specific procedures for the award of “block grants” to the lead planning teams for the implementation of the CAPs.	Policy and procedures and a grant agreement developed for use in the development and award of grants to counties in the implementation of the CAPs	DEP, Comptroller’s Office		Begins Fall 2019			<p>2020 Update: Allocation-based funding program (Community Clean Water Coordinator and CAP Implementation Grants) were developed and approved in Fall 2019</p> <p>2021 Update: Allocation-based funding program (Community Clean Water Coordinator and CAP Implementation Grants) have been implemented annually since Fall 2019. It takes 4-6 weeks on average, from the time of application submission and the time of award.</p> <p>2022 Update: Allocation-based funding program (Community Clean Water Coordinator and CAP Implementation Grants) continues to be implemented. This type of grant program was highlighted for the utility and associated efficiencies during the 2022 PA In the Balance conference, held in December 2022.</p>
2.2.3	Initiate allocation of funding utilizing “block grants” to the lead planning and implementation teams of the CAPs	<p>Allocate state and federal funding to Pilot and Tier 2 counties to fund coordinators as well as to accelerate the implementation of their CAPs.</p> <p>Allocate state and federal funding to Tier 3 and 4</p>	DEP, Comptroller’s Office		Begins January 2020			<p>2020 Update: Eight Community Clean Water Coordinator Grants for the Pilot and Tier 2 Counties were provided via PA state Environmental Stewardship Funds (ESF), totaling \$800,000 in the initial year (January-December 2020) and \$1.8 million for Pilot, Tier 2, 3 and 4 counties in second year (January – December 2021).</p> <p>CAP Implementation Grants were provided to the Pilot Counties via CBIG2 in the initial year</p>

		<p>counties once CAPs are developed.</p> <p>Best Management Practices in the CAPs focus on reductions for agricultural, stormwater, and forestry/natural sectors.</p>						<p>(January-December 2020) and to the Pilot and Tier 2 Counties via ESF the second year (January-December 2021).</p> <p>Applications for both rounds were submitted by the counties in a four-week open round and awarded in less than six weeks thereafter.</p> <p>2021 Update: In December 2021, a total of \$17.4 million was awarded for County Coordinators, CAP Implementation Grants, and BMP Verification. EPA Most Effective Basin (MEB) funding was allocated to Lancaster (EJ funding) and Chester (Ag funding). https://www.governor.pa.gov/newsroom/gov-wolf-announces-17-4-million-to-improve-local-water-quality-for-chesapeake-bay-watershed/</p> <p>2022 Update: In December 2022, a total of \$12.2 million was awarded for County Coordinators and CAP Implementation Grants. This included EPA MEB and IJA funding. https://www.ahs.dep.pa.gov/NewsRoomPublic/articleviewer.aspx?id=22236&typeid=1</p>
2.2.4	Continue to work with NFWF to fund the Local Government Implementation (LGI) grants	<p>Assist with the development of RFP and review of applications</p> <p>2022-2023 Update: NFWF anticipates continued coordination with DEP and sister agencies on delivery of Pennsylvania-specific funding streams, including LGI and MEB funding, as well as ongoing coordination for Pennsylvania implementation through the INSR and SWG programs.</p>	DEP		Begins February 2020			<p>2020 Update: On February 2, 2020, representatives from EPA, DEP, and NFWF met to discuss the PA LGI RFP. Some annual practices were added to the list of Priority practices that could be funded through this grant. NFWF hosted a webinar for LGI grant applicants, which reviewed the RFP and application process on March 17, 2020. Due to the pandemic, the application deadline was extended from April 16, 2020 to April 30, 2020. On June 5, 2020 Staff from EPA, DEP and NFWF took part in a grant review meeting.</p> <p>2021 Update: In February 2021, National Fish and Wildlife Foundation announced \$1.2 million in grant funding for 8 PA LGI projects that will help improve local waters in Pennsylvania and</p>

								<p>contribute to the restoration of the Chesapeake Bay. The awards will directly support efforts by local governments and partners throughout the Bay watershed in Pennsylvania to implement water quality projects that reduce polluted runoff from urban, suburban, and agricultural lands.</p> <p>In April 2021, NFWF released the Small Watershed Grant (SWG) Program Request for Proposals. DEP, EPA and NFWF staff participated in review of the applications and included PA LGI criteria for PA implementation projects submitted under the 2021 SWG grant opportunity. The 2021 SWG grant slate will be announced in October 2021.</p> <p>In June 2021, NFWF announced 2021 awards under the Innovative Nutrient and Sediment Reduction Grants program, including nearly \$5 million in awards to Pennsylvania projects, including support for DCNR’s forest buffer and conservation landscaping goals, and support for several emerging CAP-coordinated county-level implementation efforts.</p> <p>In June 2021, NFW released the Pennsylvania Most Effective Basins grant program Request for Proposals. Building from successful coordination through PA-LGI funding and the 2021 SWG program, NFWF engaged DEP and EPA staff in review and selection of projects for the programs inaugural round. The 2021 MEB slate will be announced in November 2021.</p> <p>2022 Update: The 2021 Chesapeake Bay Small Watershed grant slate was announced in October 2021. Pennsylvania received a total of \$3,386,806. The 2021 INSR grant slate was announced in August 2021. Pennsylvania received \$4,979,700.</p> <p>On December 3, 2022, National Fish and Wildlife Foundation announced a total of \$27.8 million awarded through the 2022 SWG grant program. As in previous years, the SWG</p>
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								<p>grant slate included funding specifically earmarked for Pennsylvania through the local government implementation funds (PA-LGI). Of the \$27.8 million, 9 Pennsylvania projects received a total of \$3,498,401 in PA LGI funds and 25 Pennsylvania projects received a total of \$5,737,884 in SWG funds. The 2022 INSR grant slate of \$8.9 million provided \$2.4 million toward 4 PA projects. The 2022 PA MEB grant slate awarded \$6.3 million to eight projects.</p> <p>2023 INSR applications were due November 17, 2022 and are currently under review.</p>
2.2.5	Engage with other jurisdictions regarding interstate trading and cross-jurisdictional financing (e.g. Conowingo)		DEP, PennVest, SRBC		2025			<p>2020 Update: PA continues to co-chair the Conowingo WIP (CWIP) Steering Committee and has been in discussions with other jurisdictions regarding the CWIP Finance Structure, as well as potential partnerships related to pay-for-performance strategies.</p> <p>2021 Update: Letter of Understanding was negotiated with other jurisdictions and SRBC for SRBC to serve as the financial entity for Conowingo WIP funding.</p> <p>2022 Update: PA continues to co-chair the Conowingo WIP (CWIP) Steering Committee. Meetings have been held frequently throughout 2022 with MDE, DEP, SRBC, and PENNVEST to discuss cross-jurisdictional financing, including but not limited to the Maryland Conowingo Financing Program and the Pennsylvania Clean Water Procurement Program.</p>
2.2.6	Investigate the potential for and implementation of short-term, low-interest, loans and other financing streams for agricultural projects		PennVest, PDA, DEP		2021 Implement beginning 2022			<p>2020 Update: Meeting held with AG Choice to determine interest in a Link Deposit style program utilizing PENNVEST funds. General support and interest exist among all parties. Structure of a program is being further investigated with a second meeting planned upon gathering of additional information.</p>

									<p>Additionally, a sublevel revolving loan fund is under discussion with regional planning agencies to provide low interest loans directly to eligible applicants including agriculture in cooperation with local County Conservation Districts. Initial meetings have been held with interest from all parties. Regional planning agencies is assembling terms that can work for them for further discussion.</p> <p>SCC staff continues to work with staff from the Treasury Department to reinvigorate the AgriLink Loan Program. This existing program previously made more than \$5 million in low interest loans, but has been inactive for approximately 8 years due to lack of funding to “subsidizes” these linked deposit loans. This discussion was sidetracked in 2020 due to the challenges presented by COVID. PennVEST has also recently expressed an interest in exploring a linked deposit low interest loan program for agricultural BMPs.</p> <p>The SCC is actively implementing its new Conservation Excellence Grant (CEG) program through agreements with Lancaster, York, Cumberland and Franklin Conservation Districts, as well as a pending agreement with Lancaster Farmland Trust and Salisbury Township (Lancaster County) as a public private partnership pilot. Total funding for these five CEG agreements is nearly \$6 million, and the SCC received an additional \$2 million in state funds in November to continue this effort.</p> <p>2021 Update: AgChoice link deposit program is unable to be implemented as they do not do certificates of deposit.</p> <p>Additionally, a sublevel revolving loan fund continues to be discussed with regional planning agencies to provide low interest loans directly to eligible applicants including agriculture in cooperation with local County Conservation Districts. Initial meetings have</p>
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								<p>been held with interest from all parties. Regional planning agencies is assembling terms that can work for them for further discussion. Progress delayed due to COVID.</p> <p>SCC staff continued to work with staff from the Treasury Department to roll out the 2nd edition of the AgriLink Loan Program. In December 2021, AgriLink Loan Program was relaunched. More information can be found here: https://www.agriculture.pa.gov/Plants_Land/Water/StateConservationCommission/Pages/Agriculture-linked-Low-Interest-Loan-Program-.aspx</p> <p>CEG: The SCC continues with delegation agreements with seven county conservation districts – Tier 1 - Lancaster and York counties and Tier 2 - Cumberland, Franklin, Bedford, Centre and Lebanon counties for the implementation of the CEG Program.</p> <p>The Lancaster and York county conservation districts have been accepting CEG applications since July 2020. Between July 2020 and September 2021, the LCCD awarded 27 CEG grants totaling \$1,252,434.15. The YCCD awarded 9 CEG grants totaling \$49,247.50.</p> <p>The Cumberland and Franklin county conservation districts began accepting CEG application in January 2021. Between January 2021 and September 2021, the CCCD awarded 4 CEG grants totaling \$427,000. The FCCD awarded 19 CEG grants totaling \$949,640.04.</p> <p>The Bedford and Centre county conservation districts have been accepting CEG applications since March 2021. Between March 2021 and September 2021, the BCCD awarded 1 CEG grant totaling \$250,000. The CCCD awarded 5 CEG grants totaling \$735,000.</p> <p>The Lebanon county conservation district has just been included into the CEG program and is in the process of executing a delegation agreement. LCCD has already been in</p>
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									<p>preliminary talks with 5 operations and expect to have 5 applications ready to be accepted as soon as they can begin accepting applications.</p> <p>All conservation district outreach efforts include posting CEG information on the conservation district’s websites and newsletter and flyers distributed to agricultural support program organization in the counties.</p> <p>Lancaster Farmland Trust (LFT) began a Private Party Partnership with the SCC in October 2020. LFT has been working with 5 grant recipients totaling \$900,000.</p> <p>2022 Update: Opportunities continue to be pursued for a link deposit program which should be more desirable with increasing interest rates. PENNVEST, DEP, and SCC have met multiple times, along with SRBC and Maryland Department of the Environment (MDE), to discuss Pay-for-Performance outcomes through the new Clean Water Procurement Program. Guidelines are under development for Spring 2023 approval.</p>
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Section 2, State Action, Numeric Commitments

2.2.1A	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.			<p>2020 Update: DEP, PDA and SCC staff continue to work with Energy Works and other proposed manure treatment technologies to have treatment technologies properly recognized and credited under the Chesapeake Bay Watershed Model. In addition, several counties have identified and prioritized manure transport as a component of their County Action Plans (CAPs).</p> <p>SCC and DEP have held discussions with and provided information pertaining to animal density and manure production to PennAg Industries and other consultants have occurred as it relates to the transport of manure from two Tier 2 counties.</p>
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								<p>SCC and DEP have been in discussions with one Tier 1 county as it relates to better tracking of manure transport within and outside of that county.</p> <p>2021 Update: The SCC, PDA, and DEP continue to work with EnergyWorks (gasification of layer manure), ESPOMA (transport and treatment of layer manure to a full line of bagged home use fertilizers), and Epcot Crenshaw Corporation/Stroud Water Research (Bio-char).</p> <p>2022 Update: Discussions between Energy Works, DEP, and SCC continue. Concern related to the main poultry facility being excluded from Bay model due to location in Adams County. CBNTT has been released for use for nutrient trading, along with the supplemental information, which takes into account the TMDL baseline as well as reduces the uncertainty ratio from 3:1 to 2:1.</p>
2.2.1A(i)	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 Tools to be in excess of organic nutrients		DEP, SCC, PDA, Lancaster County		Beginning 2020	Tracking and auditing of manure hauler/broker records		<p>2020 Update: Tracking tools were updated in PracticeKeeper and Nutrient Balance Sheets from manure brokers, received by Conservation Districts, are to be entered. Continue to reinforce with manure brokers that NBS are to be submitted to conservation districts by regulation.</p> <p>2021 Update: Continue to reinforce with manure brokers that NBS are to be submitted to conservation districts by regulation and thus entered into PracticeKeeper.</p> <p>The SCC has started the process of a regulatory review of the Commercial Manure Hauler and Brokers Program.</p> <p>2022 Update: Work is ongoing to ensure NBS are submitted to the conservation districts and entered into PracticeKeeper. Regulatory review is ongoing.</p>

<p>2.2.2A</p>	<p>Increase funding for Conservation District Nutrient Management Technicians in an effort to reduce staff turnover</p>	<p>2022-2023 Update: Beginning in state fiscal year 2022-2023, SCC and DEP will increase the full time equivalent (FTE) rate from \$60,000 to \$70,000 using state Nutrient Management Fund and federal Chesapeake Bay Regulatory Accountability Program.</p>	<p>SCC, DEP</p>	<p>Chesapeake Bay/Statewide</p>	<p>Beginning July 2022</p>			<p>2022 Update: This is a new milestone for 2022-2023.</p> <p>2022 state budget included a \$22 million line item increase in the Nutrient Management Fund. Technician salaries were raised by \$10,000, split between Chesapeake Bay Regulatory Accountability Program (CBRAP) and this increase in state funding through COVID-ARPA, for full-time equivalent.</p>
<p>2.2.3A</p>	<p>Increase funding for Conservation District Chesapeake Bay Technicians in an effort to reduce staff turnover</p>	<p>2022-2023 Update: Beginning in state fiscal year 2022-2023, DEP will increase the full time equivalent (FTE) rate from \$65,550 to \$70,000 using state Chesapeake Bay Agricultural Source Abatement Fund and federal Chesapeake Bay Regulatory Accountability Program.</p>	<p>DEP</p>	<p>Chesapeake Bay</p>	<p>Beginning July 2022</p>			<p>2022 Update: This is a new milestone for 2022-2023.</p> <p>Additional funds were allocated to the Chesapeake Bay Technical Assistance Program Objective in the federal Chesapeake Bay Regulatory Accountability Program Workplan. Federal and state Chesapeake Bay Agricultural Source Abatement Fund are used for this increase.</p>
<p>2.2.4A</p>	<p>Increase funding for Conservation District Chesapeake Bay Engineer Specialists and Engineer Assistants in an effort to reduce staff turnover</p>	<p>2022-2023 Update: Beginning in state fiscal year 2022-2023, DEP will increase the full time equivalent (FTE) rate from \$86,250 to \$91,900 for Engineer Specialists and \$79,350 to \$85,000 for Engineer Assistants using federal Chesapeake Bay Implementation Grant.</p>	<p>DEP</p>	<p>Chesapeake Bay</p>	<p>Beginning July 2022</p>			<p>2022 Update: This is a new milestone for 2022-2023.</p> <p>Additional funds were allocated to the Chesapeake Bay Engineering Program Objective in the federal Chesapeake Bay Implementation Grant Workplan. Federal funds are used for this increase.</p>
<p>2.2.5A</p>	<p>Add up to 5 new NRCS technical assistance support / engineers</p>	<p>2022-2023 Update: NRCS and PDA will fund up to an additional five new NRCS personnel to provide additional support for CEG and ACAP projects.</p>	<p>PDA, NRCS</p>	<p>Statewide</p>	<p>December 2023</p>			<p>2022 Update: This is a new milestone for 2022-2023. Agreement with NRCS has been signed to move forward with hiring engineers.</p>
<p>2.2.1F</p>	<p>Maximize existing funding sources for riparian forest buffer implementation in Pennsylvania.</p>	<p>Fully utilize existing funding sources for buffer implementation and maintenance annually, including federal, state, and private programs (esp. under-utilized programs such as REAP).</p>	<p>DEP (GG, 319), USDA (CREP+), SCC (REAP), DCNR (C2P2) TreePennsylvania (TreeVitalize) CBF (K10), etc.</p>	<p>Chesapeake Bay</p>	<p>By 2025</p>	<p>Rigid programs, existing restrictions, coordination, lack of understanding about all individual programs, etc. Lack of funds to start a new program.</p>		<p>2020 Update: See above under 2.2.1. DCNR leadership intends to explore additional opportunities in early 2021.</p> <p>2021 Update: DCNR is funding buffers through its C2P2 program with Keystone Rivers funding, the</p>

								<p>Environmental Stewardship Fund, and the Keystone Tree Fund. DCNR also anticipates allocating \$700,000 of oil and gas funding to support on-demand, shovel-ready buffer projects. DEP funds buffer projects through the CAP Implementation Grants and Growing Greener Plus grant program. DEP also continues to work with USDA-FSA and PACD in partnership for the PA CREP Program.</p> <p>2022 Update: DCNR has received \$3 million from EPA IJA MEB funds via the BIL, and will use these funds via the existing C2P2 Grants and/or the new Environmental Restoration ITQ for both riparian forest buffers and lawn conversion projects.</p>
2.2.2F	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.		<p>2020 Update: DCNR named a new TreeVitalize Leader in 2020 and is currently exploring opportunities to both solidify and expand the TreeVitalize program.</p> <p>2021 Update: DCNR hired a Tree Equity Specialist who will focus on community engagement around tree planting.</p> <p>2022 Update: Treevitalize hired a new Program Manager in January of 2022.</p> <p>TreeVitalize, in partnership with Watershed Forestry, applied for a ATBC NFWF grant, under which they have requested funding for a Bay-focused TreeVitalize employee.</p> <p>A new TreeVitalize team member focused on community outreach to increase implementation projects in the Chesapeake Bay Watershed will be hired in late 2022.</p>
2.2.3F	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	All agencies and partners	Chesapeake Bay	Ongoing/ASAP	Innovation, Funding, Coordination, etc.		<p>2020 Update: In cooperation with Western PA Conservancy, DCNR has established a mechanism to provide on-demand, flexible funding to partners for buffer implementation. We plan to seek</p>

		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.						<p>additional funding for this program. We have also been actively engaged in numerous discussions with NGO partners, consultants, and USFS on alternative conservation financing strategies to leverage private capital.</p> <p>2021 Update: DCNR has continued conversations with various NGO partners, consultants, and USFS on conservation financing strategies to leverage private capital, or develop a revolving funding mechanism. In August 2021, the Riparian Forest Buffer Advisory Council (RFBAC) meeting focused entirely on this topic.</p> <p>DCNR has hit some hurdles on the flexible funding mechanism developed with WPC, through the new Master Agreement with WPC that began 7/1/21, new opportunities could exist. DCNR aims to find a solution to this issue before the end of the 2021 calendar year.</p> <p>DEP funds buffer projects through the CAP Implementation Grants, as applied for by the counties to implement their priority initiatives.</p> <p>2022 Update: DCNR worked with DGS to create an Invitation to Qualify (ITQ) contract for Environmental Restoration work, including the planting and maintenance of riparian forest buffers. Currently, at least one contractor able to implement buffers has qualified, and DCNR is working to notify other potential contractors. DCNR intends to test this new funding mechanism with NFWF Funds awarded in 2021 for the "Penn's Woods and Meadows" proposal. This will be tested in 2023.</p>
2.2.4F	Ensure that riparian forest buffers are adequately maintained to ensure survival by developing a Maintenance funding source for NGOs to develop	Develop a Riparian Forest Buffer Maintenance funding source to create the capacity for NGOs to develop their own maintenance programs	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.		<p>2020 Update: Most DCNR funding sources provide for establishment and maintenance; but we do not currently have a dedicated source for maintenance. The Riparian Forest Buffer Advisory Committee will be launching an</p>

	<p>their own maintenance programs.</p>	<p>for new and already-implemented buffers (up to 5 years after initial planting).</p>						<p>Action Team focused on Maintenance in 2021 to explore options on how to address this and other RFB maintenance concerns.</p> <p>The SCC included maintenance on riparian forest buffers as a new qualifying reimbursable expense through the REAP program, which pays farmers back in tax credits for out-of-pocket expenses related to best management practices that promote on-farm conservation.</p> <p>In FY 19-20, the enabling legislation for the REAP Tax Credit Program was amended to provide a 90% tax credit for a number of priority BMPs in areas with a TMDL with impairments from agricultural nutrients and sediments (entire PA Bay watershed). Included in this amendment is a 90% tax credit for the installation and maintenance of forest riparian buffers. Changes were made to the REAP guidelines for FY20-21 and is now available.</p> <p>2021 Update: Due to the COVID-19 global pandemic and funding issues, the Maintenance Action Team effort with the RFBAC was put on hold. This will be resumed in late 2021 or early 2022. Available DCNR funding sources continue to provide funds for post-planting establishment costs.</p> <p>Partners in Lancaster have developed BEST, or the Buffer Establishment Support Team, which works on and fundraises for buffer maintenance for any buffers planted within Lancaster County.</p> <p>The SCC is working with the Stroud Water Research Center on a sample / draft maintenance agreement / contract and funding options for riparian forest buffer maintenance.</p> <p>2022 Update: Post-planting establishment on forest buffers is now a fundable activity for all buffers</p>
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									planted with any funding source in the past 5 years under the C2P2 grants. It can be up to 20% of the overall grant ask to DCNR.
2.2.5F	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.) Connect this work to DCNR's Climate Plan.	DCNR, Tree Pennsylvania, PRPS	Chesapeake Bay	Ongoing	Current Funding does not meet demand. Processes, procedures, and administration.			<p>2020 Update: Please refer to 2.2.2.F.</p> <p>2021 Update: Grants are now offered through the department's C2P2 program, funded with Environmental Stewardship and Keystone Tree Funds.</p> <p>2022 Update: Grants are continuing to be offered via the C2P2 grants, funded w/ Environmental Stewardship and Keystone Tree Funds. DCNR is actively exploring ways to combine TreeVitalize and Riparian Forest Buffer Grants under one forestry umbrella within C2P2.</p> <p>The Clean Streams Fund made \$3,520,000 for TreeVitalize grants, now under CWF grants, for C2P2 grant round 28.6. This was a major boost and greatly increased the number of TreeVitalize grant applications. These awards will be announced in early 2023.</p>
2.2.6F	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.			<p>2020 Update: Utilization of CAP Implementation Grants for stream and wetland restoration projects. Also, please refer to 2.1.4.F</p> <p>2021 Update: Utilization of CAP Implementation Grants and Growing Greener for stream and wetland restoration projects. In 2021, DEP Growing Greener competitive grants program provided additional preference for flood resiliency and stream and floodplain restoration projects. DCED continues to fund stream restoration and flood protection projects through the Commonwealth Financing Authority (CFA) Act 13 Watershed Restoration and Protection Program (WRPP). DEP provides technical assistance, construction oversight and funding through the Stream Improvement Program and the Flood Protection Program.</p>

								<p>2022 Update: DEP is continuing its efforts mentioned in the 2021 update.</p> <p>DEP continues to advocate for multiprogram accounting so that the unrealized co-benefits of stream and wetland restoration projects initiated through mitigation banking and In-Lieu Fee programs can be attributable to other programs such as MS4 and other pollution reduction evaluations.</p>
2.2.7F	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.		<p>2020 Update: DCNR allocated \$50,000 for implementation as part of its Lawn Conversion Program launch in 2020. An additional \$75,000 was made available for 2021, and a portion of DCNR’s EPA CBIG award for 2021 will be available for Lawn Conversion practices. The Alliance for the Chesapeake Bay received a NFWF SWG grant to fund Lawn Conversion practices in 2020 and 2021. DCNR is also working with partners to explore options for funding Lawn Conversion practices via the existing C2P2 grant opportunities in 2021, and DCNR plans to apply for a NFWF INSR grant in early 2021 that would also make Lawn Conversion implementation funding available to partners.</p> <p>2021 Update: \$75,000 was made available for 2021, and a portion of DCNR’s EPA CBIG award for 2021 was also utilized for Lawn Conversion practice implementation. However, the demand for implementation has far outpaced the funding available. The Alliance for the Chesapeake Bay is working to finalize their NFWF SWG grant to fund Lawn Conversion practices in 2021. Further, DCNR was recently awarded a \$1M NFWF INSR grant, of which \$500K will be utilized for work supporting Lawn Conversion.</p> <p>DCNR continues to work with the existing C2P2 grant program to determine how to best incorporate Lawn Conversion practices. DCNR expects partners to apply to the C2P2 program in early 2022 for grants that include Lawn Conversion implementation.</p>

									<p>2022 Update: DCNR encouraged partners to apply for C2P2 funding for turf conversion projects under the C2P2 Partnerships umbrella. Three proposals were accepted that focused on turf conversion work. Funding decisions are currently being made, and will be announced in early 2023.</p> <p>Further, DCNR will be utilizing funds awarded by both NFWF INSR and EPA MEB to fund lawn conversion practices implementation in PA.</p> <p>DCNR is also exploring options to include lawn conversion under the Riparian Forest Buffers grant category, expanding it to be a more wholistic forestry grants mechanism within C2P2.</p> <p>As of fall 2022, Lawn Conversion is now an integrated part of the C2P2 CWF Grants, and applications for lawn conversion projects will be accepted annually. Funding will be requested each year from the state budget to fund applications based on amount requested for viable projects.</p>
2.2.8F	Continue to implement stream restoration, emphasizing legacy sediment removal and floodplain restoration projects (FR-LSR). Identify areas that may have low cost-to-benefit ratios for nutrient load reductions from FR-LSR projects. Pair stream, wetland, and other aquatic resource restoration projects with upland BMPs whenever possible.	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.	Restorable wetland mapping and probable wetland mapping are completed and available for public use to target potential sites. Total Wetness Index (TWI) data is now available for use in evaluating potential pollutant flow paths and BMP effectiveness. USGS Scientific Investigation	Additional cross program development of tools for targeting aquatic resource restoration BMP implementation, particularly FR-LSR projects. Additional cross program coordination,	<p>2020 Update:</p> <ol style="list-style-type: none"> 1. Data published to PASDA PA's GIS data clearing house. Discussed with DEP Water Quality/TMDL program and consultants. 2. Ongoing EPA Wetland Program Development Grant project is focusing on developing a Watershed Legacy Alteration Index. Grant extension, contracts and revised work plan in place. 3. Scientific research and monitoring of restoration projects in several watersheds across PA was accomplished with assistance from Federal, State and Private funding sources. These scientific research and monitoring efforts provide credible results and a basis for developing cost-effective aquatic resource restoration projects.

						<p>Report (SIR 2020-5031) of monitoring efforts at Big Spring Run that provide verified load reductions and a basis to evaluate benefits for FR-LSR restoration projects.</p> <p>Cost-effectiveness analysis of FR-LSR project at Big Spring Run compared with alternative BMP's published in 2019 that demonstrates the potential of targeting low cost solutions for watershed hot spots impaired by legacy sediment (Flemming et al, 2019 Legacy sediment erosion hot spots: A cost-effective approach for targeting water quality improvements).</p>	<p>expert panel participation and technical expertise.</p> <p>Re-evaluation of the cost-effectiveness for established BMPs based on existing program data.</p> <p>Identify broader historical watershed scale legacy alterations, distributions and effects and integrate cross program data collection and analysis to develop targets for aquatic resource restoration projects.</p>	<p>2021 Update: DEP recently completed working with PSU to publish Total Wetness Index (TWI) and Geomorphon Landform mapping that provides foundational data for understanding landform/waterflow paths and project potentials. Both datasets are available on Pennsylvania Spatial Data Access (PASDA).</p> <p>2022 Update: DEP continues to promote the availability of the remote-sensing datasets for use in identifying potential restoration sites.</p> <p>DEP is continuing to highlight several LSR projects that have been completed to date. PA Clean Water Academy training showcases the significant environmental benefits of the Little Fox Run LSR project in Dover Twp., PA, as well as the notable economic and social benefits. The webinar touches on some of the long-term cost savings and other non-environmental benefits realized by the landowner and the local community. Click here to access the video.</p>	
2.2.9F	Apply for NFWF funds via America the Beautiful Challenge Grant, next INSR grant round, and potentially Central Appalachian Stewardship Program to seek additional implementation funding for TreeVitalize, Lawn	Expand funding available for implementing high-priority Forestry BMPs within the Bay Watershed and beyond.	DCNR	Chesapeake Bay	Grant Application Submitted: July 2022	Competitive funding- cannot guarantee success			<p>2022 Update: This is a new milestone for 2022-2023.</p> <p>DCNR was informed that their ATBC proposal was not awarded in 2022, but will seek NFWF feedback in 2023 and try again in future years.</p>

	Conversion, and Riparian Forest Buffers								DCNR did not apply for Central Appalachian Stewardship Program funds in 2022, but plans to do so in 2023.
Section 3, Countywide Actions									
3.2.1	<p>Phase 1 (Pilot and Tier 2 counties): Provide 8 – Community Clean Water Coordinators (External Full Time position)</p> <p>Phase 2 (Tier 3 & 4 counties): Provide 13 – Community Clean Water Coordinators (External Full Time position)</p>	<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> <p>2022-2023 Update: DEP will continue to fund and continue to seek federal funding for:</p> <p>8 – Community Clean Water Action Plan Coordinators in Pilot & Tier 2 Counties. 10 – Community Clean Water Action Plan Coordinator positions hired in Tier 3&4 counties.</p>	<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>Phase 1: Begins in January 2020, ongoing through 2025</p> <p>Phase 2: Begins in August 2020, ongoing through 2025</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>Total: 21 – Community Clean Water Coordinators \$2,100,000 (\$100,000 per coordinator)</p> <p>Phase 1: 8 – Community Clean Water Coordinators \$800,000</p> <p>Phase 2: 13 – Community Clean Water Coordinators \$1,300,000</p>	<p>2020 Update: Phase 1 implementation is in progress. 8 – Community Clean Water Action Plan Coordinators were hired in Tier 1 & 2 Counties. PA state Environmental Steward Funds were used to fund these positions.</p> <p>Phase 2 planning is in progress. 10 – Community Clean Water Action Plan Coordinator positions are provided, and the application is open. Environmental Stewardship Funds will also be used to fund these positions.</p> <p>No federal funding received for these positions.</p> <p>2021 Update: Provided funding to sustain: 8 – Community Clean Water Action Plan Coordinators in Pilot & Tier 2 Counties. 10 – Community Clean Water Action Plan Coordinator positions hired in Tier 3&4 counties.</p> <p>2021 Update: Provided funding to sustain: 8 – Community Clean Water Action Plan Coordinators in Pilot & Tier 2 Counties. 10 – Community Clean Water Action Plan Coordinator positions hired in Tier 3&4 counties.</p>
3.2.2	<p>Phase 1: Provide 3 – Community Clean Water Coordinator (Full Time Internal Coordinator Position)</p> <p>Phase 2:</p>	<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</p>	DEP		<p>Phase 1: Begins in January 2020</p> <p>Phase 2: Begins in August 2020</p>	<p>State staffing support</p> <p>Internal and External Coordination</p> <p>Phase 1 – internal coordinators were on-</p>		<p>Total: 10 – Community Clean Water Coordinator \$1,000,000 (\$100,000</p>	<p>2020 Update: DEP Chesapeake Bay Office hired one internal Coordinator. This makes a total of three Internal coordinators to support Phase 3 WIP efforts. The three internal coordinators are currently supporting the coordination of all state agencies, WIP action leaders and 34 active counties.</p> <p>2021 Update:</p>

	<p>Provide 7 – Community Clean Water Coordinator (Full Time Internal Coordinator Position)</p>	<p>coordinator and technical coordinators.</p>				<p>boarded beginning January 2020</p>		<p>per coordinator) Phase 1: 3 – Community Clean Water Coordinator \$300,000 Phase 2: 7 – Community Clean Water Coordinator \$700,000</p>	<p>Chesapeake Bay Office hired one Internal Coordinator in December 2021, with the turnover of one earlier in 2021. Staffing challenges continue at same levels as 2020 update above. For this reason, DEP developed Region CAP Support Teams, to utilize existing staff and expand their job duties and responsibilities. Two (2) Conservation District Field Representatives (CDFR) assist with county support within the Chesapeake Bay watershed.</p> <p>Four (4) CDFR positions were posted in November 2021, of which three (3) will be located in the Northeast and Southcentral regions. Interviews commenced in early 2022.</p> <p>2022 Update: A total of three DEP Internal coordinators support Phase 3 WIP efforts. The three internal coordinators are currently supporting the coordination of all state agencies, WIP action leaders and 34 active counties.</p> <p>The Chesapeake Bay Office expanded into the Bureau of Watershed Restoration and Nonpoint Source Management in fall 2022. A Chesapeake Bay Restoration Division was created that includes two sections dedicated to Bay work: Watershed Accountability and Administration and Chesapeake Bay Partnership. Staff enhancements to the Bureau include centralizing region-based Watershed Managers statewide. Watershed Managers that serve the southcentral, northcentral, and northeast portion of the state will provide additional support through their normal job duties for Chesapeake Bay watershed restoration efforts. Two Watershed Manager positions (northcentral and southcentral) report to the Watershed Accountability and Administration Section. Watershed Manager interviews for southcentral and northeast regions were conducted in December 2022.</p>
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<p>3.2.3</p>	<p>Phase 1: Provide 2 – Clean Water Technical Assistance Coordinators (Full Time Technical Coordinator)</p> <p>Phase 2: Provide 8 – Clean Water Technical Assistance Coordinators (Full Time Technical Coordinator)</p>	<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.</p>	<p>Technical Contractor</p>		<p>Phase 1: Begins in July 2019</p> <p>Phase 2: 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>Total: 10 – Clean Water Technical Assistance Coordinators \$900,000 (\$90,000 per coordinator)</p>	<p>2020 Update: DEP Chesapeake Bay Office hired one internal Technical Coordinator. Additionally, DEP maintains a contract with the Susquehanna River Basin Commission (SRBC) to provide additional technical support to Phase 3 WIP efforts. Support was provided to Phase 1 counties for CAP development and implementation support. Phase 2 support was provided with CAP technical toolbox development and technical assistance at stakeholder meetings.</p> <p>2021 Update: One internal Technical Coordinator and the DEP-contracted Susquehanna River Basin Commission (SRBC) continue to provide additional technical support to Phase 3 WIP efforts. Support was provided to Phase 1 counties for CAP implementation support and numeric progress updates to Pilot counties’ CAP milestones. Phase 2 support was provided with CAP technical toolbox development and technical assistance at stakeholder meetings.</p> <p>2022 Update: The Chesapeake Bay Partnership Section was created under the new Bureau and a Section Chief and two employees will provide technical coordination and the DEP-contracted Susquehanna River Basin Commission (SRBC) continued to provide additional technical support to Phase 3 WIP efforts. Support was provided to counties for CAP implementation support and numeric progress updates to Tier 2 counties’ CAP milestones.</p>
<p>3.2.4</p>	<p>Phase 1: Provide 1 – Clean Water Facilitation Coordinator (Full Time Facilitation Coordinator Position)</p>	<p>Facilitation Coordinator: A DEP contractor reporting to the DEP Internal Coordinator.</p>	<p>Facilitation Coordinator DEP</p>		<p>April 2019</p>	<p>State staffing support</p> <p>Internal and External Coordination</p>		<p>1 – Clean Water Facilitation Coordinator \$100,000</p>	<p>2020 Update: DEP maintains a contract with Consulting With a Purpose to provide facilitation and planning support for Phase 3 WIP efforts. Consulting With a Purpose continues to provide facilitation for internal and external coordination and county support.</p> <p>2021 Update:</p>

								<p>DEP maintains a contract with Consulting With a Purpose to provide facilitation and planning support for Phase 3 WIP efforts. Consulting With a Purpose continues to provide facilitation for internal and external coordination and county support.</p> <p>2022 Update: DEP maintains a contract with Consulting With a Purpose to provide facilitation and planning support for Phase 3 WIP efforts. Consulting With a Purpose continues to provide facilitation for internal and external coordination and county support.</p>
3.2.5	<p>Phase 1: Provide 1 – Clean Water Outreach Coordinator (Full Time Outreach Contractor)</p>	<p>Outreach Coordinator: A DEP contractor reporting to the DEP Chesapeake Bay Office, in coordination with WIP Communication and Engagement Workgroup and DEP Communication Office.</p>	<p>Outreach Coordinator DEP</p>		April 2019	<p>State staffing support Internal and External Coordination</p>		<p>1 – Clean Water Outreach Coordinator \$100,000</p> <p>2020 Update: DEP maintains a contract with Water Words That Work to provide outreach and communication coordination support for the Phase 3 WIP. Water Words That Work continues to provide support for communication tools and support for both internal and external needs.</p> <p>2021 Update: DEP maintains a contract with Water Words That Work to provide outreach and communication coordination support for the Phase 3 WIP and CAP efforts. Water Words That Work continues to provide support for communication tools and support for both internal and external needs.</p> <p>2022 Update: DEP maintains a contract with Water Words That Work to provide outreach and communication coordination support for the Phase 3 WIP and CAP efforts. Water Words That Work continues to provide support for communication tools and support for both internal and external needs.</p>

Priority Initiative 3: Expanding Capacity for Technical Assistance

Section 2, State Actions, Programmatic and Narrative Commitments

2.3.1	<p>Implement a pilot of the Center for Water Quality Excellence concept in the</p>	<p>A Request for Proposals will be released and awardee put in place.</p>	<p>DEP, Pennvest</p>	<p>Lancaster and York</p>	<p>RFP done April 2020 Pilot done Summer 2021</p>			<p>2020 Update: The vendor for the Center for Water Quality Excellence has been selected and is Keystone</p>
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	<p>four pilot counties of Lancaster, York, Adams and Franklin Counties.</p>	<p>Assistance will be provided to landowners and municipalities to complete projects.</p> <p>Assistance includes outreach and resources (both technical and financial) to municipalities and farmers to implement BMPs.</p>						<p>Safety Services, Inc. d/b/a Land Logics Group. Contracts have been finalized and a Notice to Proceed was issued on November 12, 2020. Next step is to get the virtual center component up and running which is anticipated by May 2021. Also, between now and May 2021 and beyond the vendor will be doing outreach at events, assuming those events happen and appropriate COVID-19 safety protocols can be maintained. The physical center should be opening June/July 2021. The Pilot will focus on Lancaster and York Counties initially.</p> <p>2021 Update: The Center for Water Quality Excellence funded by PENNVEST is up and running both virtually and with a storefront. 2021-2022 effort is focused on outreach.</p> <p>2022 Update The Center for Water Quality Excellence has been providing outreach at events, through its portal, and one on one with landowners, farms, and municipalities relating to the funding opportunities available to address water quality and MS4 stormwater related issues.</p>
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Section 9, Climate Change

<p>9.3.1C</p>	<p>Complete the Penn State Study, <i>Climate Change Impacts on Pennsylvania’s Watershed Management Strategies and Water Quality Goals</i></p>	<p>Study will answer some key questions that will be used to more effectively select and target practices that will address climate resiliency goals.</p>	<p>DEP, Penn State</p>	<p>Statewide</p>	<p>July 2020</p>			<p>2020 Update: Completed as part of Climate Impacts Assessment, press release issued April 2020. Posted on DEP Climate Change Impacts page: https://www.dep.pa.gov/citizens/climate/Pages/impacts.aspx</p> <p>2021 and 2022 Updates: Completed in 2020. No further update.</p>
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<p>9.3.2C</p>	<p>Pennsylvania Climate Academy</p>	<p>Reduce an additional 1.81 million pounds of nitrogen and 0.095 million pounds of phosphorus delivered to the Chesapeake Bay due to climate change by 2025.</p>	<p>DEP, GreenGov Council</p>	<p>Statewide</p>	<p>Ongoing</p>			<p>2022 Update: 106 DEP personnel took CC-P training, and 16 of those people received their CC-P credential in Fiscal Year 2020/2021. The Pennsylvania Climate Leadership Academy was established in the second half of 2021. This is a new milestone for 2022-2023.</p>
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		<p>This project supports the Green Gov Council through technical assistance to achieve the goals set forth in the 2019-1 Executive Order, Commonwealth Leadership in Addressing Climate Change and Promoting Energy Conservation and Sustainable Governance. DEP over the past fiscal year developed an accredited Climate Training Course for DEP participants which can now be delivered to a wider audience as a Climate Academy. This Academy when paired with the public facing mission of the PA Green Gov Council can be used to educate local governments and the public on Climate and the benefits of sustainable governance.</p>							<p>PA Climate Leadership Academy has been renamed PA Climate Change Mitigation & Resilience Network (“the Network”). RFQ issued for contractor to manage/lead the Network; bids are due by 12/6. MOU w/8 sibling state agencies to share contractor costs, which will facilitate participation and ownership of the Network by multiple agencies, not just DEP.</p>
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Section 2, State Actions, Numeric Commitments

2.3.1A	<p>Initiate Implementation of Pennsylvania’s Agriculture Conservation Stewardship Program (ACSP)</p>	<p>Finalize draft program guidance, application, and on-farm assessment tools; 3rd party verification process, pilot program; and release program for initial implementation</p>	<p>Certified Third Parties, CDs, DEP, SCC, PDA</p>	<p>Chesapeake Bay</p>	<p>July 2020 Ongoing</p>				<p>2020 Update: Development of the PA ACSP is on hold until early 2021 due to COVID challenges and staffing challenges.</p> <p>A pilot conducted in Fall/Winter 2019 indicated a need to investigate additional methods and alternatives to incentivize participation by farmers and third-party verifiers.</p> <p>2021 Update: PDA/SCC renegotiated a contract with EPA for an NPG grant agreement to provide resources for the development and implementation of PACS</p>
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									<p>2022 Update: The Agricultural Conservation Assistance Program (ACAP) was approved by the PA House and Senate.</p> <p>Set up and begin ACAP program.</p>
2.3.2A	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				<p>2020 Update: Ongoing efforts to fund Penn State College of Agriculture’s 2020 Producer Survey.</p> <p>Continue Turkey Hill/ PennAG Industries efforts to get certain practices credited.</p> <p>Funding and support of PAOneStop: https://extension.psu.edu/programs/nutrient-management/planning-resources/paonestop</p> <p>2021 Update: Penn State, PDA, SCC, and DEP hold a joint Letter of Understanding (LOU) and serve on an Executive Committee and Management Committee to oversee the development and enhancements made to PAOneStop. SCC and DEP continue funding and support for the PAOneStop program. Discussions are taking place to see if PAOneStop could serve as an alternative method to support compliance, mapping balance sheet development, manure and nutrient setbacks, etc. Additionally, an online survey mechanism has been developed for PAOneStop to be initially used in the 2022 Producer Survey data collection.</p> <p>Continue to work with the Alliance for the Chesapeake Bay, Giant Foods, and Maryland and Virginia Milk Cooperative Association to support local dairy farms to improve their land and water.</p> <p>Continue to work with the Hershey Company and Alliance for the Chesapeake Bay on <i>Sustainable Dairy Pa</i>, to support more sustainable and climate friendly dairy supply chain in Pa for the Hershey Milk Chocolate Company.</p>

								<p>Continue Turkey Hill Clean Water Partnership to incentivize dairy farms to use a conservation plan and BMPs on their farms.</p> <p>2022 Update Penn State, PDA, SCC, and DEP hold a joint Letter of Understanding (LOU) and serve on an Executive Committee and Management Committee to oversee the development and enhancements made to PAOneStop. SCC and DEP continue funding and support for the PAOneStop program. Enhancements supported through state agency funding include the implementation of a standard template through the PAOneStop tool for Ag E&S Plan and Manure Management Plans, to ensure administrative completeness.</p> <p>Continue to work with the Alliance for the Chesapeake Bay, Giant Foods, and Maryland and Virginia Milk Cooperative Association to support local dairy farms to improve their land and water.</p> <p>Continue to work with the Hershey Company and Alliance for the Chesapeake Bay on <i>Sustainable Dairy Pa</i>, to support more sustainable and climate friendly dairy supply chain in Pa for the Hershey Milk Chocolate Company.</p> <p>Continue Turkey Hill Clean Water Partnership to incentivize dairy farms to use a conservation plan and BMPs on their farms.</p>
2.3.3A	Implementation of Animal Waste Management Systems (AWMS)	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 increase 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.		<p>2020 Update: Continue to meet with NRCS and other ag partners during the Quarterly Technical Committee meetings. Continued funds via CBIG for Chesapeake Bay Engineering Specialists and Engineer Assistants, as well as state funds for joint funding with NRCS for PA Association of Conservation Districts Engineer Specialists in the four pilot counties. NRCS continues to provide training and Job</p>

								<p>Approval Authority for Conservation District ag technician staff.</p> <p>Penn State University has initiated a conservation training curriculum to prepare graduating students for a career in ag conservation.</p> <p>CEG and CAP Implementation Grants, for instance, are available for pilot and Tier 2 counties to allocate for AWMS implementation. However, further funds are needed to meet the needs for technical assistance and engineering design of liquid and semi-solid storages.</p> <p>2021 Update: CEG and REAP programs are available for Tier 1 and Tier 2 counties to allocate for AWMS implementation. However, further funds are needed to meet the needs for technical assistance and engineering design of liquid and semi-solid storages.</p> <p>DEP, SCC, NRCS, and PACD continue to work together to provide funding for engineering and technical support staff via Chesapeake Bay Technicians, Chesapeake Bay Engineer Assistants and Specialists, Chesapeake Bay Watershed Conservation Initiative (CBWCI), and Technical Assistance Grant (TAG). Conversations are ongoing regarding effective and efficient deployment of services from these funding programs and staff.</p> <p>2022 Update: SCC in planning phase of developing a Technical Assistance Center to build capacity related to the new Ag Conservation Assistance Program and the potential doubling up of funds under EQIP/CSP.</p>
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)	DEP, Penn State Extension, SCC, NRCS	Statewide	September 2020	TGD finalized and released October 2019. Training in development.		<p>2020 Update: Four web-based training modules for the Ag E&S Manual were developed by DEP staff and opened for public consumption on DEP's Clean Water Academy.</p>

		<p>and train conservation districts and consultants.</p> <p>2022-2023 Update: Implement web-based and in-person training for Manure Management Planning and Agriculture Erosion and Sediment Control Planning; Revise the Manure Management Manual Technical Guidance Document by 2023</p>						<p>Entered into agreement with Penn State Extension to create additional in-person curriculum as well as to ensure consistency between PAOneStop and the Ag E&S Manual.</p> <p>2021 Update: Penn State is in development of curriculum as well as finalizing the PAOneStop Ag E&S Plan reporting template and instructions.</p> <p>Ag E&S Plan and Manure Management Plan modules continue to be provided via DEP’s Clean Water Academy.</p> <p>2022 Update: Work with Penn State continues for the development and implementation of Ag E&S Plan curriculum. Manure Management Manual Technical Guidance Document is currently under revision, with draft slated for publication in 2023.</p>
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	Ongoing Beginning July 2020			<p>2020 Update: Both CEG and the new DEP phase 2 inspection funding (for BMPs) is being rolled out based on the Phase 3 WIP Tiered Counties priority status. See the CEG discussion at 2.2.1.</p> <p>2021 Update: The SCC continues to target resources at Tier 1 and 2 counties. Approximately \$10 million for agricultural BMPs is funded through CEG and REAP. Additionally, the Nutrient Management Program funds full time staff (FTEs) at conservation districts, with Chesapeake Bay watershed conservation districts making up 85% of the FTE funding.</p> <p>Governor Wolf announced support of the Chesapeake Conservancy and partners’ “30 by 30” initiative, with a goal to delist 30 stream segments for agricultural impairments by 2030. Currently, there are 39 stream segments identified for this “rapid delisting” approach in Lancaster, Union, Clinton, Snyder, Lycoming, Huntingdon, and Centre Counties. DEP continues to work with the Chesapeake Conservancy and county partners to support</p>

								<p>this endeavor through targeted financial and technical assistance, such as through EPA State Capacity Grant for targeted watersheds in Lancaster County.</p> <p>2022 Update: DEP 2022 Growing Greener Plus grant included the Renaissance Watershed Initiative, which will further support targeting of practices to small stream segments listed for agricultural impairment and that identified to have confidence for successful restoration. Project applications were submitted by aggregating practices within one or more stream segments, with the initial Phase being capped at \$750k per project, and would include education and outreach, farm assessments and planning, surveying and inventorying, and design. The purpose of this phased approach was to set the projects up for success, whether it is through a following year of Growing Greener or another funding source, such as NRCS, PENNVEST, SCC, etc.</p>
2.3.6A	Coordinate existing technical assistance for more effective and efficient deployment of services	Work with federal, state, local agencies as well as private and nonprofit entities to identify and communicate the available services and locations of those services, as well as gaps in service areas and how to effectively fill them	DEP, SCC, NRCS, PACD, Private Consultants, Nonprofits	Chesapeake Bay	2023	Swift and effective deployment of services requires additional staff at the federal, state, and local level as well as additional private industry capacity		<p>2022 Update: Discussions began in late 2021 based on CAP needs identified in multiple counties throughout the Chesapeake Bay Watershed. This is a new milestone for 2022-2023.</p> <p>SCC in planning phase of developing a Technical Assistance Center to build capacity related to the new Ag Conservation Assistance Program and the potential doubling up of funds under EQIP/CSP. DEP continues to fund Chesapeake Bay Technicians, Engineer Specialists, and Engineer Assistants. DEP continues to provide funding, along with NRCS, toward the PACD Technical Assistance Grant (TAG) program statewide. DEP also provides funding, along with NRCS, to the Chesapeake Bay Watershed Conservation Initiative (CBWCI) Program in the four pilot counties.</p>
2.3.7A	Apply for NFWF America the Beautiful Challenge grant program to provide	2022-2023 Update: Expand existing technical assistance throughout the	DEP	Chesapeake Bay	Grant application submitted: July 2022	Competitive funding – cannot guarantee success		<p>2022 Update: DEP applied for a \$7.5 million grant through the NFWF America the Beautiful Challenge for</p>

	funding for private technical assistance circuit riders for Pennsylvania farmers	Chesapeake Bay Watershed to navigate the planning, survey/design, permitting, construction and operation and maintenance.						<p>2-3 regional technical assistance circuit rider contracts to assist Pennsylvania farmers navigate through agriculture practice planning, design, engineering, permitting, and construction by expanding technical assistance capacity and increasing partnership building to expedite practice implementation.</p> <p>The application was submitted in July 2022, with 12 letters of support from a variety of partners, including counties, SCC, PDA, PSU, CBF, and consultants.</p> <p>DEP was informed on November 3, 2022 that the proposal was declined. NFWF received a record 527 applications requesting approximately \$1.1 billion, an amount that exceeds 2022 available funding by more than twelve to one, resulting in a highly competitive review process. A meeting to discuss proposal feedback and guidance on a 2023 proposal development will be scheduled in January 2023.</p>
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.		<p>2020 Update: DCNR is currently in the process of filling a new Commonwealth position that would focus partly on riparian forest buffers, and continued to make C2P2 grants available to help partner organizations fund positions for buffer outreach and implementation work with landowners.</p> <p>Further, various implementation funding for buffers made available by DCNR can be utilized in some fashion to provide money to buffer contractors/entrepreneurs to implement buffers.</p> <p>DCNR and the Alliance for the Chesapeake Bay continue to work with individuals with barriers to employment to encourage new buffer planting and maintenance entrepreneurs through the Correctional Conservation Collaborative program.</p> <p>2021 Update:</p>

								<p>DCNR was able to fill one additional position focused on Watershed Forestry (buffers and lawn conversion) in early 2021.</p> <p>DCNR was also awarded a NFWF INSR grant that supports an additional new position for two years, as well as a grant from the USFS that will support the hiring of three more individuals for one year. DCNR hopes to fill these four new positions via their agreement with WPC in early 2022, once the grant contracts have been finalized.</p> <p>The trainings for individuals with barriers to employment to encourage new buffer planting and maintenance entrepreneurs, in partnership with the Alliance for the Chesapeake Bay, were halted due to the COVID pandemic. When prisons are able to reopen to guests, DCNR and the Alliance hope to reinvigorate this program. Although no Correctional Conservation Collaborative programs were held in 2021, DCNR did wrap up work on a Chesapeake Bay Trust-funded GIT grant for the program in 2021, and a training manual as well as maps of opportunities was developed for DCNR and partners by the project contractor, Chesapeake Conservation Landscaping Council.</p> <p>2022 Update: DCNR has created five new Regional Watershed Forestry Specialist Positions, which will serve as added technical assistance capacity across PA, with a focus on the Bay Watershed. Two current RWFS positions exist, bringing the total of regional positions providing TA support in PA up to seven. DCNR plans to utilize these new positions to help create additional capacity within each region.</p> <p>As of fall 2022, all seven RWFS positions have been filled, and are working on outreach, planning, and planting projects.</p>
2.3.2F	Increase Urban Forestry Technical Assistance	Fund positions within the Commonwealth system	DCNR, TreePennsylvania, Penn State	Chesapeake Bay	Ongoing	Funding, overhead, space, capacity, available candidates,		<p>2020 Update: Nothing new to report.</p>

	Available to Communities and Citizens.	and with partner organizations.	Extension, PHS, etc.			on-boarding process, hiring process, etc.			<p>2021 Update: DCNR hired a Tree Equity Specialist to focus on community outreach and engagement.</p> <p>2022 Update: DCNR created a new Chesapeake Bay Watershed-focused TreeVitalize position, and the new hire started in late 2022.</p>
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. 2022-2023 Update: Implement turf-conversion technical assistance program.	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. Implementation requires additional funds to sustain program.			<p>2020 Update: See above on launch of new Lawn Conversion Program. The Lawn Conversion Advisory Committee is working on technical guidance documents and trainings for landowners and contractors, as well as local government and NGO partners.</p> <p>2021 Update: DCNR intends to fully incorporate Lawn Conversion into its watershed forestry program. All new hires for positions that will be developed out of recently received grants will be trained in both Lawn Conversion and Riparian Forest Buffer technical assistance.</p> <p>There is still a strong need for additional technical assistance for Lawn Conversion to help meet intense demand from landowners.</p> <p>2022 Update: The five new RWFS positions created by DCNR will not only provide RFB TA, but turf-conversion TA as well. See 2.3.1F</p> <p>DCNR has now integrated Lawn Conversion fully into its Watershed Forestry Program and provides TA and funding to landowners across the Commonwealth.</p>
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. Inconsistent use of terminology and definitions (federal, state and FGDC) continues to contribute to challenges associated with communicating	Clean Water Academy technical assistance contract in place to develop training courses for the Clean Water Academy	Additional cross program guidance development is needed to transfer knowledge of acceptable	<p>2020 Update: 1. General Permit processing training sessions completed. Additional training sessions under development for late 2020 and 2021 targeting compensation determinations and environmental assessment restoration plan approvals.</p>

							<p>to assist CCD and DEP staff in permit application reviews.</p> <p>Technical presentation and webcast 2019 - https://chesapeakestormwater.net/events/big_spring_run_research/</p> <p>Reviews of legacy sediment removal floodplain restoration (FR-LSR) projects that are subject to state and federal regulations including Chapter 102, Chapter 105/106 and Section 401 Water Quality Certifications</p>	<p>restoration practices for the purposes of credit reporting.</p> <p>Existing monitoring and assessment programs for streams and other aquatic resources must identify and report additional impairments, including legacy sediments and other legacy alterations.</p>	<p>2. DEP staff participated in Chesapeake Bay Program’s 2020 efforts to improve stream and wetland restoration definitions and crediting for Legacy Sediment Removal projects.</p> <p>2021 Update: Engaging in a STAC BMP crediting workshop as a Steering Committee member and presenter planned for 2022 regarding multi-benefit accounting and unintended consequences.</p> <p>2022 Update: Several DEP staff participated in the Wetlands Outcome Attainability Workshop. DEP provided the PA State Action Plan, which included in the final Wetlands Action Plan, presenting to the Management Board in December 2022. PA highlighted several barriers, including lack of staff and funding capacity, and detailed several strategic plan objectives.</p>
2.3.5F	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 provided funds to PFBC in order to hire additional staff.			<p>2020 Update: Completed: Four Fisheries Biologists were hired in 2020 to expand the Northcentral stream restoration model in the NC region and move into the SC region.</p> <p>2021 Update: PFBC has made significant progress on the expansion of the stream restoration initiative in the Northcentral PA region while adding resources to the Southcentral part of the watershed. PFBC also added four more staff in 2021 to assist with restoration projects.</p> <p>2022 Update: PFBC continues to build partnerships in the southcentral region of the state while</p>

									maintaining our partnerships in the northcentral region. PFBC staff worked with partners on 35 stream restoration projects that improved over 7 miles of stream.
2.3.5F	Hire 5 new Regional Watershed Forestry Specialists to assist with Lawn Conversion and Riparian Forest Buffer Technical Assistance via the Master Agreement with Western PA Conservancy, increasing total number of Regional Watershed Forestry Specialist positions to seven.	Hire RWFS for the newly created NW, Western, SW, Central, and NE regions. Continue to keep the already-existing SE and SC RWFS positions filled. All RWFS positions will focus on the Bay counties within their regions. All regions touch part of the Bay watershed.	DCNR, WPC	NE, NW, Western, Central, and SW regions.	Hire Summer 2022	Limited term positions- only 2 years of funding secured. Not Commonwealth positions.	Currently have funding for two years from USFS/FSA.	Will need continued funding to keep these positions employed.	<p>2022 Update: This is a new milestone for 2022-2023.</p> <p>All five new positions were filled in August of 2022.</p>
2.3.6F	Incorporate Technical Assistance funds into C2P2 grants for lawn conversion, riparian forest buffers, and TreeVitalize	Make funding available to partners so they may increase their own staff able to provide TA to landowners and other partners.	DCNR	Baywide	Begins 2022				<p>2022 Update: This is a new milestone for 2022-2023.</p> <p>This was fully accomplished for the Fall 2022 grant round and will be in place for all future grant rounds.</p>
2.3.1S	Complete revisions to the Pennsylvania Stormwater BMP Manual		DEP, Villanova University and subcontractor	Statewide	Draft 2022-2023 Final 2023				<p>2020 Update: A preliminary draft is nearly complete and will be shared with an internal workgroup for review and comment in the near future.</p> <p>2021 Update: The updated BMP manual is still under development with a plan for public engagement and comment in 2022.</p> <p>2022 Update: The new PCSM Manual (draft) is complete and was shared with EPA in 2022. It was presented to DEP's Water Resources Advisory Committee on November 17, 2022 and is expected to be published for public comment in 2023.</p>
2.3.2S	Revise the Compliance and Enforcement Manual for Construction Stormwater		DEP, Conservation Districts	Statewide	December 2023				<p>2022 Update: DEP has published a new Chapter 102 inspection report in October 2022 as the first step in development of this manual. The next step is to finalize an SOP and training on how</p>

									to conduct construction stormwater inspections.
2.3.1W	Wastewater Plant Performance Technical Assistance	<p>Perform enhanced technical assistance to wastewater treatment facilities to support reduced nutrient loadings from these facilities.</p> <p>DEP reports progress every 6 months to EPA for grant outputs and outcomes.</p>	DEP	Chesapeake Bay	December 2020 Continue through 2025 as funds allow				<p>2020 Update: Existing Wastewater Technical Assistance program continues. Funds have been provided by EPA to purchase necessary supplies and equipment.</p> <p>2021 Update: Wastewater Technical Assistance program continues. Funds have been provided by EPA to purchase necessary supplies and equipment.</p> <p>2022 Update: Wastewater Treatment Evaluations (WTE) were conducted Cornwall Borough in Lebanon County (Swatara Creek / Susquehanna River Basin) Cowans Gap STP in Perry County, continued work at Guest Farm Village in Franklin County, and Bedford STP in Bedford County.</p> <p>Technical Assistance was provided to Mont Alto Municipal Authority in Franklin County, Sullivan Township Sewage Treatment Plant in Tioga County, Northeastern Schuylkill Joint Municipal Authority in Schuylkill County, Somerset Township Municipal Authority, Wells Creek STP in Somerset County, Hastings Borough Municipal Authority in Cambria County, Newport Borough in Perry County, West Branch STP in Cambria County, Curwensville STP in Clearfield County, Hollow Creek STP in York County, and Lancaster County Bible School in Lancaster County.</p>
2.3.1W(i)	Wastewater Plant Performance Technical Assistance	Purchase of equipment and supplies to provide enhanced technical assistance and perform	DEP		September 2021 Continue through 2025 as funds allow				<p>2020 Update: Existing Technical Assistance program continues.</p>

		servicing and calibration of equipment						<p>2021 Update: Wastewater Technical Assistance program continues. Funds have been provided by EPA to provide enhanced technical assistance and perform servicing and calibration of equipment.</p> <p>2022 Update: Field meter sets with instrumentation have been distributed to 6 of 6 regional offices, totaling 36 meters to be used for regional office staff during POTW inspections. Training on use and calibration of the meters was provided to staff at the time of deployment.</p>
2.3.1W(ii)	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 Continue through 2025 as funds allow			<p>2020 Update: Existing Technical Assistance program continues.</p> <p>2021 Update: Wastewater Technical Assistance program continues. Training related to reducing nutrient loads was provided for wastewater staff at nine facilities.</p> <p>2022 Update: DEP has provided an activated sludge training course to Clean Water staff in in all 6 regions. Trainings were also provided to certified operators at PA Rural and PennTech Conferences. Training related to reducing nutrient loads was provided for wastewater staff at 11 unique facilities.</p>

2.3.1W(iii)	Manual for Land Treatment of Treated Wastewater	Provides guidance for planning, permitting and design of projects proposing the land application of treated wastewater. Land treatment is one alternative to surface water discharge. Nutrient requirements for new and expanding discharges may push a project sponsor to exploring alternative methods of treatment and disposal.	DEP	Statewide	Ongoing				2022 Update: This is a new milestone for 2022-2023. Pre-draft presented to Advisory Committee. Draft for public comment expected early 2023.
2.3.1W(iv)	State Revolving Fund Technical Assistance	DEP and PENNVEST have collaborated on an RFP for Technical Assistance and Outreach the focus is on helping small and disadvantaged wastewater and water systems. The technical assistance may facilitate projects that could result on reduction of nutrients from point and nonpoint source of nutrient to the Bay through the development and implementation of projects through the State Revolving Fund Program. The money for this effort is provided through the Bipartisan Infrastructure Law.	DEP, PENNVEST	Statewide	Ongoing – Contract through SFY 22-23 with possibility of 1 yr extension		Technical		2022 Update: This is a new milestone for 2022-2023. The RFP solicitation closed on June 21, 2022. Two proposals were received, and the review team, which included DEP staff, evaluated the proposals. PENNVEST provided the review team recommendation to the Board for consideration. The Board voted to approve the recommended offer at the July 20, 2022 meeting. PENNVEST and DEP staff will begin contract negotiation with the approved offeror which is the Larson Design Group Team; this Team consists of several consulting firms. Notice to proceed was issued on November 18, 2022.

Priority Initiative 4: Reporting and Tracking

Section 2, State Actions, Programmatic and Narrative Commitments

2.4.1	Pass legislation to revise Pennsylvania’s Right to Know Law to allow for additional confidentiality of landowner records.		Private Sector, Agricultural Organizations		2020-2021 Legislative Session				2020 Update: No action on this item 2021 Update: No action on this item 2022 Update: No action on this item
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2.4.2	Develop a planning and prioritization tool for use in the development and refinement of the CAPs.	<p>A final tool available to county planning teams for use in the prioritization and tracking of practices and future planning</p> <p>2022-2023 Update: Chesapeake Commons procurement and contract may be renewed via the ITQ list. DEP, CC and the Pilot and Tier 2 CAP Coordinators will work together to discuss and implement the previously identified FieldDoc enhancements through the Data Review Team.</p> <p>Enhancements to connect FieldDoc with the Data Warehouse are ongoing, following procurement and IT requirements.</p> <p>2022-23: Update FieldDoc to include the ability to enter details on the inspection of previously installed BMPs and the expansion of projects that are eligible to be recorded through FieldDoc.</p> <p>DEP Chesapeake Bay Office provide virtual training to partners on the new features.</p>	DEP, EPA, Chesapeake Conservancy, Chesapeake Commons	Chesapeake Bay	Begin 2020	<p>2020 Update: FieldDoc was customized to meet the needs of local stakeholders. The Data Tools Review Team, lead by Tier 1 and 2 County Coordinators, provided extensive recommendations on enhancements needed to FieldDoc. This review process was completed from March 2020 to August 2020. All critical enhancements were completed by the FieldDoc development team. FieldDoc was introduced for public use in August/September of 2020. Counties are strategizing plans to increase the use of FieldDoc. Additional non-critical enhancements were identified by the Data Tools Review Team and will begin in 2021.</p> <p>2021 Update: From the original Chesapeake Commons (CC) contract, FieldDoc has started the process to complete DEP’s cloud use case so in the future FieldDoc can be connected to the Data Warehouse as the public facing electronic platform. DEP and CC are working closely to renew the FieldDoc contract for another year to complete the identified enhancements from 2020. A scope of work and budget was submitted to DEP in 2021. CC is working on being added to the PA’s ITQ Procurement List. The Tier 2 counties have been added to FieldDoc so they can input non-cost share/non-regulatory BMPs into FieldDoc. Pilot county updated goals were also submitted to be incorporated.</p> <p>Pennsylvania’s 2020 EPA model progress metrics were added to compare with the county CAP goals.</p> <p>2022 Update: Chesapeake Commons (CC) is currently working to complete DEP’s cloud use case so FieldDoc can securely connected to the Data Warehouse as the public facing electronic platform. All necessary API updates have been completed for the connection between FieldDoc and the Data Warehouse.</p>
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								<p>CC completed and is approved for the PA's ITQ Procurement List and an updated Scope of Work and Budget are being prepared for an updated contract.</p> <p>All Pennsylvania Counties within the Chesapeake Bay watershed have been added to FieldDoc. With their profiles and metrics added all counties are now able to report implemented BMPs into the system. Several training videos and reference documents were created to guide counties as they began entering data. These materials are available on the Clean Water Academy.</p> <p>Several counties reported implemented BMPs through FieldDoc during this reporting cycle that will be counted towards PA's 2025 goal.</p>
2.4.3	Work with the Chesapeake Bay Program Partnership, Water Quality Goal Implementation Team, to elicit support for a joint remote sensing project with other jurisdictions		DEP, EPA, Chesapeake Bay Program Partnership	Chesapeake Bay	Begin March 2020			<p>2020 Update: Met with WQGIT chairs and BMP Verification Ad Hoc Committee Chairs as it pertains to coordinating and broadening remote sensing opportunities across the watershed. Discussions are ongoing.</p> <p>2021 Update: DEP provided Chesapeake Bay Regulatory Accountability Program (CBRAP) funds to all counties that are participating in the CAP implementation process for BMP verification, to be spent through 2022. Some counties have developed a theoretical concept / white paper for remote sensing, based on lessons learned documented in the report from the 2016 NRCS Potomac Watershed Remote Sensing Project and assessed by TetraTech in their third-party report. DEP is encouraging these counties to pursue remote sensing of practices that have been approved for this type of verification methodology and identified in Pennsylvania's BMP Verification Program Plan.</p> <p>2022 Update: DEP continues to encourage counties to pursue remote sensing to assist and support</p>

									verification efforts. In July 2022, funding was added to the DEP Chesapeake Bay Technical Assistance Program grants to further augment verification strategies and efforts throughout Pennsylvania's Chesapeake Bay watershed, including but not limited to the use of remote sensing technologies. Time and resources are currently not available to conduct a broader, multi-jurisdictional approach at this time.
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				<p>2020 Update:</p> <ol style="list-style-type: none"> 1. Ag Inspection Module updates complete. 2. NMP Module updates in progress. 3. BMP Module (Inspection/verification) updates nearly complete. 4. CEG enhancement in progress. 5. 319/Growing Greener enhancement in progress. <p>2021 Update:</p> <ol style="list-style-type: none"> 1. Nutrient Management Program Module updates in Progress. 2. BMP Module (inspection/verification) updates complete. 3. CEG enhancement complete. 4. Section 319/Growing Greener grant program enhancements nearly complete. 5. Partner plan submission in progress. 6. Tenant transfer in progress. <p>2022 Update:</p>

									<p>1. Partner Plan Submission enhancement complete.</p> <p>2. Transfer data ownership enhancement complete.</p> <p>3. Section 319/Growing Greener grant program enhancements (Phase 1) Complete.</p>
2.4.5	Update the Pennsylvania BMP Verification Plan and Quality Assurance Program Plan (QAPP)	2022-2023 Update: DEP will be working in 2022 via the CBP Watershed Technical Workgroup to give suggestions on updating the QAPP format and requirements. DEP will continue to submit revised QAPP based on established content requirements and timelines.	DEP, EPA	Chesapeake Bay	Annually, as needed				<p>2020 Update: Both were updated and sent to EPA on December 1, 2020 - there may be updates if additional progress information is presented from the Penn State Survey.</p> <p>2021 Update: DEP sent out new QAPP guidance and template to all of 37+ data reporters to be incorporated into the 2021 QAPP. The QAPP and BMP Verification Plan Addendum were updated and submitted to EPA's CBPO by the December 1, 2021 deadline. DEP continues to work with EPA's CBPO and Water Division to clarify their QAPP expectations. DEP met multiple times with EPA and provided written responses to questions provided by EPA over the course of several months leading up to the QAPP and BMP Verification Program Plan submission. The 2021 QAPP and BMP Verification Program Plan are posted to DEP BMP Verification website.</p> <p>2022 Update: DEP sent QAPP guidance and template to all of 39+ data reporters to be incorporated into the 2022 QAPP. The QAPP and BMP Verification Plan Addendum were updated and submitted to EPA's CBPO by the September 1, 2022 deadline. DEP continues to work with EPA's CBPO and Water Division to clarify their QAPP expectations. DEP met multiple times with EPA and provided written responses to questions provided by EPA over the course of several months leading up to the QAPP and BMP Verification Program Plan re-submission on December 1, 2022. The 12/01/22 QAPP included new updates for the Turnpike Commission and US Army Corps and</p>

								Engineers. DEP extensively updated the PennState Survey QAPP Submission and the new method from Transect Survey / PennState survey collaboration for cover crops. The 2022 QAPP and BMP Verification Program Plan are posted to DEP BMP Verification website .
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 Ongoing	Buy in from the Chesapeake Bay Program Partnership		<p>2020 Update: Presented to the Management Board in April 2020 as it related to stream and wetland compensatory mitigation and mitigation banks. Requested responses from EPA CBPO in early summer 2020 as it related to wetland and stream compensatory mitigation and mitigation banking. Received EPA CBPO draft response on 12/1/2020. Next steps are currently under consideration.</p> <p>Working with DEP Bureau of Abandoned Mine Reclamation (BAMR) on strategies for accounting for and crediting water quality improvements as it relates to mine reclamation/AMD projects.</p> <p>Pulled together a group of internal and external subject matter experts (DEP, SCC, Penn State Extension, Consulting entities) to better account for and credit Dairy Precision Feeding.</p> <p>2021 Update: SCC has been working with Penn State University and through the Chesapeake Bay Ag Workgroup to develop and approve a methodology for Dairy Precision Feeding.</p> <p>The Chapter 105 proposed rulemaking includes amendments to Section 20a, which is proposed to be retitled Compensation for impacts to aquatic resources. The proposed for update to Section 20a coincides with advances in science and current understanding of environmental and aquatic resource restoration principles. These revised requirements will also dovetail with the federal mitigation requirements, introduced</p>

								<p>under the 2008 federal mitigation rule, so that applicants and the regulated community will not have to comply with two different standards, as Pennsylvania’s standards will satisfy the federal standards. The proposed amendments to Section 20a will establish compensatory mitigation standards including siting criteria for service areas, standards for assessment of impacts and the valuation of proposed compensation, monitoring and performance standards.</p> <p>DEP has been in discussion with USGS, CBPO staff, and STAC representatives and have begun the development of a STAC workshop proposal to be submitted in February 2022, with a focus on in-stream water quality improvements and habitat improvements due to AMD treatment systems. If approved, the goal would be to hold the workshop in late 2022, with a potential for a convening of an Expert Panel in early 2023.</p> <p>2022 Update: SCC continues to work with Penn State University and through the Chesapeake Bay Ag Workgroup to develop and approve a methodology for Dairy Precision Feeding.</p> <p>DEP and SRBC continues discussions with STAC leads regarding the STAC Literature Review, beginning June 2022, on the in-stream water quality and habitat improvements of AMD treatment systems.</p> <p>DEP and SRBC are working together, with MDE, CBF, and NFWF, regarding the in-stream water quality and habitat benefits of freshwater mussels.</p> <p>DEP works with NRCS regarding the identification of practices that are funded by USDA but not currently credited toward progress (e.g. Conservation Stewardship Program). Additionally, DEP, SCC, and NRCS are awaiting the USGS report on data overlap between the state and federal data sets, which began in 2020.</p>
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<p>2.4.7</p>	<p>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</p>	<p>Monitoring station(s) and water quality results.</p> <p>2022-2023 Update: The 2022 Integrated Water Quality Monitoring and Assessment Report (Integrated Report) will be published in 2022. It shows the delisting of many impaired stream miles that have been restored to water quality standards, including 32 miles of the Bennet Branch Sinnemahoning Creek.</p> <p>The 2022 Integrated Report includes a section dedicated to the Chesapeake Bay and activities to implement the Chesapeake Bay TMDL. This page will highlight multiple activities and progress that has occurred. The Integrated Report will also include the Chesapeake Bay Healthy Waters Healthy Communities story map and the Sediment and Nutrient Assessment Program (SNAP) Report by SRBC that has been reformatted to an interactive report using an ESRI Storymap application.</p>	<p>DEP Bureau of Clean Water</p>	<p>Susquehanna River</p>	<p>January 2021 Ongoing</p>			<p>1 person \$600,000</p>	<p>2020 Update: Ongoing monitoring at 77 Water Quality Network Stations in the Bay watershed continues at up to monthly frequency. This includes 36 Bay nutrient Loading stations that are sampled monthly and are also included in the bay non-tidal network that includes an addition stormwater sediment sampling events per year.</p> <p>Data is uploaded annual to the DUET database and select stations were included in trends analysis to measure progress in the <u>2020 Integrated Report</u>. The results of the trends analysis of mainstem Susquehanna and select tributaries is generally a reduction in total N, P and Suspended Sediment throughout the basin over the past 10 years.</p> <p>2021 Update: DEP’s Water Quality Division has successfully submitted additional chemistry data from the period of 2010 - 2020 to the national Water Quality Portal. The enhancement updated/added a total of 2,021,291 records from 64,907 sampling events. This provides other monitoring site data than is provided with the Water Quality Network. These records are statewide but the majority are from the Bay watershed.</p> <p>SRBC published the <u>2021 SNAP report</u> in storymap format in October 2021.</p> <p>2022 Update: The 2022 Integrated Report was approved by EPA on August 3, 2022 and published to the DEP website here: https://storymaps.arcgis.com/stories/b9746e-ec807f48d99decd3a583eede12 The 2022 Integrated Water Quality Report includes a focus on Chesapeake Bay Watershed restoration efforts as well as Climate Change Impacts in Pennsylvania.</p>

<p>2.4.7(i)</p>	<p>Install real-time monitors at the Marietta Non-Tidal Network (NTN) station to collect continuous water temperature (WT), specific conductance (SC), pH, Dissolved Oxygen (DO), Turbidity, and Nitrate plus Nitrite (NOx).</p>	<p>The resulting combination of discrete and real-time data will be used to characterize continuous nitrogen, phosphorus, and sediment.</p>	<p>DEP, USGS, EPA</p>	<p>Susquehanna River</p>	<p>Beginning September 2022</p>			<p>2022 Update: This is a new milestone for 2022-2023. Funds from EPA FY17 and FY18 Section 319 Nonpoint Source Management grants and Pennsylvania state Chesapeake Bay Agricultural Source Abatement Fund will be used for the installation costs of this enhanced water quality monitoring system at Marietta.</p> <p>As of August 2022, the deployment of the Next Generation Station was complete and monitoring and data reporting to the USGS website was successfully occurring.</p>
<p>2.4.8</p>	<p>Updates to the Nutrient Credit Trading Program – Nutrient Trading Tool</p>	<p>Incorporate performance-based credit trading tool through the Chesapeake Bay Nutrient Tracking 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 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> <p>2022-2023 Update: The PA Nutrient Credit Trading Program (Program) intends to use RIBITS, the Regulatory In lieu fee and Bank Information Tracking System developed by the</p>	<p>DEP Bureau of Clean Water</p>	<p>Chesapeake Bay</p>	<p>Beginning January 2020</p>			<p>2020 Update: CBIG3 and NEIEN funding sources for the work have been identified and are available, and the vendors are ready to proceed, but approval to proceed with the work contracts has not been granted.</p> <p>2021 Update: CBIG3 and NEIEN funding sources are available and work has begun to update CBNTT for use by the Program. The Program intends to pursue updating RIBITS to serve as a tool for administering the Program.</p> <p>2022 Update: TIAER has completed development of the tool and successfully integrated MTT.</p> <p>Thorough testing was completed by DEP, EPA, USDA and former aggregators. Results of testing show were positive with satisfactory results with calculations and user experience.</p> <p>CB Registry update of RIBITS will be contracted to Applied Research Associates Inc. (ARA). Terms and conditions have been agreed upon and contracting process has commenced.</p> <p>EPA and USDA have given DEP approval for adoption of CBNTT for the 2022 trading season.</p>

		US Army Corps of Engineers with support from EPA, US Fish & Wildlife Service, Federal Highway Administration, and NOAA Fisheries to track water quality trading (WQT) activities and credits for restoration banks recognized under Natural Resource Damage Assessment statutes. The WQT portion was sponsored by the USDA Office of Environmental Markets. Currently, VA is participating as a pilot state and MD also intends to use RIBITS. PA's use of RIBITS will facilitate Program activities and increase consistency and transparency in trading among Bay states.							CBNTT went live on DEP's website for the regulated community to utilize on July 22, 2022. It is currently available for the 2022 Nutrient Trading season.
2.4.8(i)	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				<p>2020 Update: The 3:1 ratio continues to be implemented until the program has moved to CBNTT and uses a performance-based calculation methodology.</p> <p>2021 Update: The 3:1 ratio continues to be implemented until the program has moved to CBNTT and uses a performance-based calculation methodology.</p> <p>2022 Update: CBNTT was released on July 22, 2022 memorializing DEP's transition from practice based to performance based calculations, now implementing a 2:1 uncertainty ratio for all nonpoint source generators.</p>
2.4.8(ii)	Release CBNTT for use	Update 2022-2023: CBNTT will be available for use in	DEP	Chesapeake Bay	September 2022				<p>2022 Update: This is a new milestone for 2022-2023.</p>

		2022. DEP received EPA support for release.						CBNTT was released July 22, 2022 with EPA and USDA support.
2.4.8(iii)	Publish revised draft Nutrient Trading Supplement, incorporating CBNTT Performance-based methods to DEP website	Update 2022-2023: Draft supplement will be published to the DEP website to ensure consistent communications.	DEP	Chesapeake Bay	December 2022			<p>2022 Update: This is a new milestone for 2022-2023.</p> <p>Draft supplement was published to the DEP website on October 20, 2022 ensuring consistent communications.</p>
2.4.9	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			<p>2020 Update: The federal BMPs were reported to EPA for 2020 Progress.</p> <p>2021 Update: Federal Facility BMPs received from Federal partners were reported with Pennsylvania’s 2021 Progress Submission. DoD tracking has shown Pennsylvania’s reporting of Federal BMPs is at one of the highest success rates (NEIEN acceptance) in the watershed.</p> <p>2022 Update: The federal facility BMPs were reported for 2022 Progress Submission to EPA. However, DEP discovered that the federal facilities were reporting large impoundments as stormwater BMPs. DEP, USACE, and DoD collaborated to correct the data set for these BMPs.</p>
2.4.10	Active participation and collaboration in Chesapeake Bay Partnership Technical Workgroups focused on CAST model updates	Integrate best available data and science from Pennsylvania and ensure that historic model process issues like excess/cutoff are addressed across the partnership in the two-year CAST model updates.	DEP, SCC, DCNR, EPA, Chesapeake Bay Jurisdictions, NRCS, DoD, and Partnership	Chesapeake Bay	CAST-23 planning begins 2022			<p>2022 Update: This is a new milestone for 2022-2023.</p> <p>DEP and other stakeholders regularly attend and contribute to EPA’s CBPO office workgroups under the Bay Program’s Water Quality Goal Implementation Team for science-based technical updates to CAST.</p> <p>Notably in 2021, the DEP participated in the newly formed BMP Verification Ad Hoc Committee, Agriculture Ad Hoc Committee, Land Use and Water Technical Work Group, and Conowingo WIP Steering Committee concerning the CAST21 Workplan. Below are the summarized 2021 outcomes:</p> <p>1. BMP Verification Ad Hoc Committee: Discussed BMP Credit durations for Barnyard</p>

								<p>Runoff Control (BRC), Loafing Lot Management (LLM), Forest Buffers, Grass buffers, and Wetlands. Presented findings from Pennsylvania's verification and inspection programs related to BRC/LLM. Forest Buffers and Tree Plantings were changed from 10 to 15-year credit duration. DEP gave feedback on BMP Verification and the volume of the historically reported BMPs from federal sources (such as CREP) lost to credit duration expiration.</p> <p>2. NRCS NEIEN Crosswalk: DEP and SCC have worked with NRCS to identify gaps in reporting, including the LOU described in 2.4.4A. One area of recent note is the inability to report many NRCS funded practices (such as those funded through Conservation Stewardship Program CSP funding) because there is not an associated "crosswalk" in the NEIEN list. This is a significant issue that must be addressed no later than CAST-23, and DEP and NRCS will work together to ensure that it is included in the CAST-23 workplan.</p> <p>2. Ag Ad Hoc Committee: DEP and SCC staff represented Pennsylvania on the Ag Ad Hoc Committee to review and execute the CAST-21 workplan. However, multiple areas of the workplan that were raised by Pennsylvania were not addressed due to lack of partnership support, such as modeled nutrient management issues on full-season soybeans and the addition of known animals into the modeling tools.</p> <p>3. Land Use Workgroup: Discussed new land classifications, cover/use 2017-2019 updates and hydrography data. Partnered with Chesapeake Conservancy to provide local land cover/use review. Incorporated a new method of detecting extractive lands.</p> <p>4. Watershed Technical Workgroup: Discussed back out and cutoff issues related to forest buffers.</p>
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								<p>5. Conowingo WIP Steering Committee: Participate as a Co-chair of the Steering Committee and actively engage in discussions relating to Activity 1, 2, and 3. Activity 3 is focused on BMP data management, tracking and reporting; work with Activity 3 leads, Chesapeake Conservancy, to ensure streamlined reporting requirements and crediting.</p> <p>6. CAST-21 – At least 16 state agency staff, including Cabinet Secretaries and other Executive Staff of DEP, PDA, and DCNR, have been engaged throughout 2022 on the evaluation and review of CAST-21. More than 290 personnel hours have been spent on this one item alone. Multiple meetings were held with CBPO and the Chesapeake Bay Partnership at the Principals Staff Committee, Management Board, and Water Quality Goal Implementation Team levels. DEP staff conducted extensive research regarding the concerns brought forth to the partnership about CAST-21, specifically focused on fertilizer sales data, and developed slide decks and briefing documents to inform executive staff and others regarding these concerns. In December 2022, a draft Action Plan for Fertilizer Data Improvements was developed by DEP and shared with other jurisdictions within the Chesapeake Bay Partnership.</p> <p>DEP will continue to address CAST updates through these and other EPA CBPO Workgroups under the governance of the Principals Staff Committee, Management Board, and Water Quality Implementation Team.</p>
2.4.11	Hire 1 Aquatic Biologist to support nonpoint source management program and to conduct water quality monitoring assessments with a focus on Tier 1 and Tier 2 counties	2022-2023 Update: Aquatic Biologist will support Section 319 grantees and Conservation District Watershed Specialists, while also conducting and reporting water quality monitoring within the	DEP	Statewide with a focus on Chesapeake Bay	July 2022			<p>2022 Update: This is a new milestone for 2022-2023.</p> <p>Aquatic biologist was hired to further support Pennsylvania’s Nonpoint Source Management Program by July 2022.</p>

		Chesapeake Bay Watershed.						
2.4.12	Hire 1 Environmental Group Manager to oversee the Chesapeake Bay Partnership Section	2022-2023 Update: Environmental Group Manager will provide additional oversight and management of DEP Chesapeake Bay data tracking, reporting, and coordination efforts with EPA and other federal and jurisdictional partners.	DEP	Chesapeake Bay	December 2022			<p>2022 Update: This is a new milestone for 2022-2023.</p> <p>Environmental Group Manager was hired by October 2022 to oversee the tracking, reporting, and modeling efforts with EPA and other federal and jurisdictional partners. In addition, after reorganization taking place in Fall 2022, an Environmental Program Manager was hired by December 2022 to oversee the Chesapeake Bay Watershed Restoration Division – including Chesapeake Bay Partnership and Watershed Accountability and Administration Sections.</p>
2.4.13	Hire 1 Environmental Group Manager to oversee the Watershed Support Section	2022-2023 Update: Environmental Group Manager will provide additional oversight and management of the EPA Section 319 Nonpoint Source (NPS) Management Program, DEP Growing Greener Plus, and Conservation District Watershed Specialist Programs. This position will oversee reporting of Section 319 NPS Management Program efforts to EPA.	DEP	Statewide	December 2022			<p>2022 Update: This is a new milestone for 2022-2023.</p> <p>Environmental Group Manager was hired by October 2022 to oversee the Nonpoint Source Management Program, Growing Greener, Conservation District Watershed Specialist programs. In addition, after reorganization taking place in Fall 2022, an Environmental Program Manager was hired by December 2022 to oversee the Nonpoint Source Management Division – including Watershed Support, Conservation District Support, and Agriculture Compliance Sections.</p>

Section 2, State Actions, Numeric Commitments

2.4.1A	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		DEP, PDA, SCC		January 2021	Buy in from the Chesapeake Bay Program Partnership		<p>2020 Update: Action has not started</p> <p>2021 Update: Action has not started</p> <p>2022 Update: Action has not started. Will convene partner group in early 2023 to discuss.</p>
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	model, commit additional funding or the technical and financial assistance necessary to implement these practices.							
2.4.2A	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.		<p>2020 Update: Action is moving forward as planned, workgroup discussing and will be presenting to the CBP Ag Workgroup in January 2021</p> <p>2021 Update: PDA and PSU have presented this approach to the Ag Workgroup. PDA and PSU are developing a proposal for workgroup consideration.</p> <p>2022 Update: Data is being collected from dairy cooperatives to use as baseline for what farmers are already doing.</p>
2.4.3A	Expand reporting of Enhanced Nutrient Management	<p>64,640 acres with no manure applied would be managed based on a nitrogen and phosphorus based nutrient management plan;</p> <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,</p>	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>2020 Update:</p> <ol style="list-style-type: none"> Working on the incorporation of verification of Supplemental nutrient management (NM) BMP implementation during annual Act 38 Status Reviews. CBAIP – Standard Operating Procedure and training materials released to support the tracking of Supplemental NM BMPs verified during inspections. Counties have included these BMPs into their CAPs and are actively working to verify them through CAP Implementation Grants and other funding sources and partnerships (e.g. NFWF and 4R Alliance). <p>Action is moving forward as planned, workgroup discussing and developing forms</p> <p>2021 Update:</p> <ol style="list-style-type: none"> Verification of Supplemental Nutrient Management (NM) BMPs on Act 38 Annual Status Reviews began October 2021. A live webinar was held for certified technicians and recorded for future reference.

		timing, and placement for nitrogen and phosphorus						<p>2. Counties are actively reporting supplemental NM BMPs in the PracticeKeeper Database while conducting inspections and site visits.</p> <p>3. Coordinating with Penn State University and SCC for the deployment of the 2022 Penn State Voluntary Producer Survey for the Tier 2 and Tier 3 counties, which will also capture supplemental NM BMP implementation.</p> <p>2022 Update: Developed and deployed supplemental onsite status review form for Act 38 Concentrated Animal Operations (CAOs), which resulted in increased reporting of implemented supplemental Nutrient Management practices.</p>
2.4.4A	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		<p>2020 Update: Agricultural Grass Buffers are being reported through PracticeKeeper, as well as the BMP Partner submission module through the Agricultural Plan Reimbursement Program. Grass buffers are also being reported through Penn State survey, that is scheduled to report by the end of 2020.</p> <p>2021 Update: Agricultural Grass Buffers were reported to EPA’s CBPO from PracticeKeeper, as well as the BMP Partner submission module through the Agricultural Plan Reimbursement Program, and Penn State survey as part of DEP’s 2020 progress submission. Grass Buffer credit duration was being assessed in the Chesapeake Bay Program Partnership BMP Verification Ad Hoc Committee. As shown in the Numeric Milestones, submitted progress through 2021 shows an increase in reported grassed buffer acres.</p> <p>DEP, SCC, NRCS, and USGS hold a joint Letter of Understanding (LOU) to assess duplication of Conservation Technical Assistance (CTA) reporting in four counties. Currently, NRCS</p>

								<p>reported CTA projects do not get accounted for due to concerns related to duplicate reporting. DEP provided state reported data to USGS to assess with NRCS reported data. To date, USGS has not yet produced a report from this data sharing project.</p> <p>2022 Update: Increases in grass buffers on fenced pasture corridor, narrow grass buffers, and narrow grass buffers on fenced pasture corridor have been reported in 2022 numeric progress. Further refinement and collection of grass buffers, as well as determining best approaches for verification of grass buffers with expired credit duration, are ongoing.</p> <p>DEP, SCC, NRCS, and USGS hold a joint Letter of Understanding (LOU) to assess duplication of Conservation Technical Assistance (CTA) reporting in four counties. Currently, NRCS reported CTA projects do not get accounted for due to concerns related to duplicate reporting. DEP provided state reported data to USGS to assess with NRCS reported data. To date, USGS has not yet produced a report from this data sharing project.</p>
2.4.5A	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			<p>2020 Update:</p> <ol style="list-style-type: none"> 1. PA Farm Conservation Practices Inventory was voluntarily submitted by agricultural operators in Adams, Franklin, and York Counties. Verifications were completed by Penn State Extension professionals, and data analysis is on-going. 2. MOU is finalized, and data analysis and comparison is ongoing across DEP PracticeKeeper and USDA datasets in Franklin, Juniata, Lancaster, and York Counties. 3. The Chesapeake Bay Ag Inspection Program (CBAIP) continues to collect and report BMP data across the PA Bay watershed as part of initial and follow-up inspections.

									<p>4. CBAIP has initiated Phase 2 (Plan and BMP Implementation) inspections in Adams, Chester, and Lancaster Counties.</p> <p>PA's Agricultural Plan Reimbursement Program BMPs are continuing to be reported to Practice Keeper by Team Ag and Larson (APRP contractors) through the BMP Partner Module.</p> <p>2021 Update:</p> <p>1. PA Farm Conservation Practices Inventory was voluntarily submitted by agricultural operators in Adams, Franklin, and York Counties. Verifications were completed by Penn State Extension professionals, and data analysis is complete.</p> <p>2. Data analysis and comparison is ongoing across DEP PracticeKeeper and USDA datasets in Franklin, Juniata, Lancaster, and York Counties.</p> <p>3. The Chesapeake Bay Ag Inspection Program (CBAIP) continues to collect and report BMP data across the PA Chesapeake Bay watershed as part of initial and follow-up inspections. The 2020-2021 Agriculture Inspections Annual Summary was published to the website in December 2021.</p> <p>4. CBAIP Phase 2 (Plan and BMP Implementation) inspections continue in Adams, Chester, and Lancaster Counties and has expanded to all counties where initial inspections are complete. Information related to the Phase 2 portion of the CBAIP is included in the 2020-2021 Agriculture Inspections Annual Summary.</p> <p>5. SCC and DEP continue funding and support for the PaOneStop program. Enhancements to PaOneStop will allow for use during the 2022 producer survey data collection.</p> <p>2022 Update:</p>
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								<p>1. PA Farm Conservation Practices Inventory was voluntarily submitted by agricultural operators in Tier 2 Counties. Verifications were completed by Penn State Extension professionals, and data analysis is nearly complete.</p> <p>2. Data analysis and comparison is complete across DEP PracticeKeeper and USDA datasets in Franklin, Juniata, Lancaster, and York Counties. DEP awaits the report from USGS.</p> <p>3. The Chesapeake Bay Ag Inspection Program (CBAIP) continues to collect and report BMP data across the PA Chesapeake Bay watershed as part of initial and follow-up inspections. The 2021-2022 Agriculture Inspections Annual Summary was published to the website in October 2022.</p> <p>4. CBAIP Phase 2 (Plan and BMP Implementation) inspections were completed in Adams, Chester, Clinton, Columbia, Franklin, Lancaster, Lebanon, Montour, Sullivan, and York Counties and continues to expand to all counties where initial inspections are complete. Information related to the Phase 2 inspections is included in the 2021-2022 Agriculture Inspections Annual Summary.</p> <p>5. SCC and DEP continue funding and support for the PaOneStop program. Enhancements to PaOneStop will allow for use during the 2022 producer survey data collection. Ag. E&S Plan Module to PAOneStop complete.</p>
2.4.6A	Develop an electronic reporting system for CAFOs to submit annual reports	2022-2023 Update: DEP will conduct work, using state and federal funding, to develop the CAFO Annual Report e-Reporting Framework to meet EPA e-reporting rule	DEP	Chesapeake Bay/Statewide	Beginning 2022 through 2024			<p>2022 Update: CAFO eReporting tool for annual reports is under development.</p>
2.4.7A	Develop functionality for the trained partner submission and DEP or CCD	2022-2023 Update: DEP will conduct work using federal funding to develop	DEP	Chesapeake Bay/Statewide	October 2022			<p>2022 Update: Partner plan submission PK enhancement is complete. Additional guidelines and web-</p>

	review of verified agricultural BMPs and farm plans	the PracticeKeeper Partner Submission Planning Modules and enhance the PracticeKeeper Partner Submission BMP Module.							based training modules were developed for third-party verifiers to provide direction regarding BMP verification qualifications and criteria for those entities.
2.4.8A	Develop and release a NRCS Customer Record Request Form and accompanying FAQs to allow for consistent and clear guidance for sharing of producer data	2022-2023 Update: NRCS will develop, with DEP collaboration, a new Customer Record Request Form to ensure lawful release of records and provide clear guidance to producers and public/private/nonprofit entities related to information protected under Section 1619 of the Farm Bill. This new form will allow for data to be shared with local and state agencies, as the information will be provided to the producer from NRCS, and the producer will be responsible for the release of information to other partners. It also clearly outlines that the release of information is not a condition of USDA program participation.	NRCS, DEP	Statewide	May 2022				2022 Update: NRCS Customer Record Request form and accompanying FAQs have been developed.
2.4.1F	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. 2022-2023 Update: DEP and DCNR Bureau of Recreation and Conservation are developing crosswalk lists, training, and	DEP, DCNR, PDA, SCC, EPA, PACD, NGOs, Farm Organizations, NRCS, PSU	PA Bay-wide	Ongoing	QA/QC of partner data, system access, etc.			2020 Update: DCNR Forestry entered BMPs into Practice Keeper from 2017 – 2020 and they were reported as part of 2020 Progress to EPA. Chesapeake Bay Foundation’s (CBF) Keystone 10 Million Trees Initiative reported their tree plantings from 2018 – 2020 and was submitted to EPA. DEP is working with DCNR Recreation to report their BMPs in Practice Keeper. FieldDoc, in partnership with Chesapeake Commons, was launched in October 2020 to

		<p>enhancements for reporting priority BMPs that are implemented as part of their grant programs, like parks rehabilitation projects (e.g. green infrastructure, tree planting, and forest buffers).</p>						<p>capture BMPs that are not part of a Commonwealth cost share or regulatory program.</p> <p>NFWF BMPs are going to reported through FieldDoc.</p> <p>DCNR's TreeVitalize program submitted tree planting BMPs from 2015 – 2019 for 2020 Progress.</p> <p>2021 Update: DCNR Forestry Program entered BMPs into Practice Keeper from 2017 – 2021 and these BMPs were reported as part of 2020 and 2021 Progress to EPA.</p> <p>DCNR's TreeVitalize program submitted tree planting BMPs from 2015 – 2019 were reported as part of 2020 Progress to EPA. DCNR Forestry and TreeVitalize will continue to report their BMPs to PracticeKeeper.</p> <p>DEP's DEP and DCNR collaborated with Chesapeake Bay Foundation to set up a PracticeKeeper Partner BMP Module. CBF updated their internal data collection process and requirements to accurately include spatial parcel data that they are going enter PracticeKeeper. DCNR is the reviewing entity and will be QA/QC the data and exporting CBF data from Practice Keeper to submit to DEP. CBF will report historic data to DCNR in a spreadsheet form, but moving forward CBF will utilize PracticeKeeper for all of their future reporting.</p> <p>As part of DCNR's Climate Resiliency initiative, DCNR Recreation is working with DEP to report their BMPs in PracticeKeeper. DCNR Recreation agreed to "pilot" PracticeKeeper to report BMPs for York and Lancaster County. DCNR Recreation is going to update their grant close out form to include reporting BMPs.</p> <p>For FieldDoc, Chesapeake Commons added the Tier 2 counties so they can input non-cost</p>
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								<p>share/regulatory BMPs along with the Pilot counties. EPA's CBPO 2020 Progress metrics will be added for the Pilot and Tier 2 counties in FieldDoc to compare with the county CAP goals.</p> <p>NFWF BMPs were reported through FieldDoc to EPA's CBPO for 2020 progress.</p> <p>2022 Update: DCNR Forestry Program entered BMPs into Practice Keeper and were reported for 2022 Progress to EPA.</p> <p>DCNR's TreeVitalize experienced some reporting challenges and will report next year for 2023 Progress that will include 2022 BMPs through PracticeKeeper.</p> <p>DCNR's lawn conversion program has not yet been integrated into PracticeKeeper. DCNR is exploring alternative methods for reporting forest buffers beyond PracticeKeeper.</p> <p>Scheduled for 2023: As part of DCNR's Climate Resiliency initiative, DCNR Recreation is working with DEP to report their BMPs in PracticeKeeper. DCNR Recreation agreed to "pilot" PracticeKeeper to report BMPs for York and Lancaster County. DCNR Recreation is going to update their grant close out form to include reporting BMPs.</p> <p>For FieldDoc, Chesapeake Commons added the Tier 3 and 4 counties so they can input non-cost share/regulatory BMPs along with the Pilot and Tier 2 counties. EPA's CBPO 2021 Progress metrics were added for all counties to compare with the county CAP goals. Chesapeake Commons is working with DEP and GeoDecisions to create an automated reporting process to Data Warehouse.</p> <p>NFWF BMPs were reported through FieldDoc to EPA's CBPO for 2022 progress.</p>
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<p>2.4.2F</p>	<p>Celebrate successful implementation and maintenance of forestry BMPs through reporting successful efforts.</p>	<p>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 acceptance and appetite for these BMPs will make outreach and implementation less time-intensive, less expensive processes.</p>	<p>All agencies and partners.</p>	<p>PA Bay-wide</p>	<p>Ongoing</p>	<p>Report generation, digestible messaging, continual messaging, etc.</p>			<p>2020 Update: DCNR included forest buffers and lawn conversion practices in its monthly e-newsletter, <i>The Resource</i>, and celebrated forestry BMPs through the USFS Shared Stewardship agreement signing committing to the Bay Forest Restoration Strategy.</p> <p>Teddi Stark received the 1st Annual Watershed Leadership Award which will be given annually during the Riparian Forest Buffer Summit.</p> <p>The Buffer Vocational Training at Huntingdon State Correctional Institute was a part of the Correctional Conservation Collaborative and received a Governor’s Environmental Excellence Award in 2020, as well as local news coverage.</p> <p>2021 Update: David Wise of Stroud Water Research Center received the 2nd Annual Watershed Leadership Award, which was presented at PA’s Virtual 2021 Buffer Summit.</p> <p>DCNR continued to share success stories via social media and resource newsletters, as they were available.</p> <p>DCNR invited executive and legal staff who work on our many agreements to a partner planting to celebrate progress on buffers internally.</p> <p>CCLC is making October 2021 “buffers month”, and hosting and sponsoring outreach and events around riparian forest buffers.</p> <p>2022 Update: Greg Wilson of Donegal TU was posthumously awarded the Watershed Forestry Leadership Award at the 2022 Watershed Forestry Summit (formerly Riparian Forest Buffer Summit).</p> <p>In May 2022, PA DEP, PA DCNR, PDA, and members of the Chesapeake Bay Commission</p>
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									attended a celebratory buffer planting in Lancaster, PA.
2.4.1S	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 2022	DEP, MS4s	Statewide	Begin 2019				<p>2020 Update: DEP is initiating a new project to develop a web-based system for MS4 annual reports to collect BMP data.</p> <p>DEP is utilizing an electronic system for recording MS4 inspections (“eInspection”).</p> <p>2021 Update: The development of an electronic reporting system for MS4 Annual reports is underway. It is anticipated that this system will begin to be implemented for reporting year 2022.</p> <p>2022 Update: The development of the eReporting application for MS4 Annual Status Reports is complete and a small number of MS4s were asked to beta test the system this year. A few bugs were discovered and as a result, it is likely that next year will continue to be considered a testing period.</p>
2.4.2S	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	Begin 2020				<p>2020 Update: DEP is anticipating the launch of the Chapter 102 ePermit system on January 25, 2021, to allow the regulated community to submit Notices of Intent (NOIs) electronically for PAG-02 NPDES General Permit coverage for stormwater discharges associated with construction activities. The ePermit system will be built in phases, in which new and amendment PAG-02 NOIs will be released first, followed by individual NPDES permit applications and then erosion and sediment control (E&S) permit applications. Use of Chapter 102 ePermit will be voluntary at first, but is expected to be required in the future. The system represents a significant step forward in DEP’s ability to collect information on earth disturbance activities and BMPs across Pennsylvania.</p> <p>2021 Update:</p>

								<p>The Chapter 102 ePermit system is available for voluntary use for:</p> <ol style="list-style-type: none"> 1. New NOIs and amendments for the PAG-02 General NPDES Permit (released January 25, 2021); 2. New applications and amendments for Individual NPDES Permits for Stormwater Discharges Associated with Construction Activities (released April 21, 2021); and 3. New applications and amendments for Erosion and Sediment Pollution Control (E&S) Permits for Discharge of Stormwater Associated with Construction Activities (released August 4, 2021). <p>System availability for New NOIs for the Erosion and Sediment Control General Permit (ESCGP-3) for earth disturbance associated with Oil and Gas Exploration, Production, Processing or Treatment Operations or Transmission Facilitates is tentatively planned for release on December 8, 2021. The ePermit system records anticipated PCSM BMPs for earth disturbance projects.</p> <p>2022 Update: DEP's IT staff continue to make needed improvements to ePermit. Currently about 3-5% of Chapter 102 NPDES applications/NOIs are being submitted through ePermit.</p>
2.4.3S	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			<p>2020 Update: DEP's Bureau of Clean Water continues to track MS4 PRPs. Here are the numbers:</p> <ol style="list-style-type: none"> 1. Percentage of PRPs reviewed of those received: 100% (178 total, there are multiple joint PRPs that include about 250 MS4s) 2. Percentage approved of those reviewed: 87% (155 of 178) 3. Total PRPs not received: 8 4. Total PRPs not yet approved: 31 <p>Note this is being tracked in terms of PRPs instead of MS4s, since there are multiple joint PRPs that involve many jurisdictions. The York County PRP includes more than 40 MS4 which will be approved shortly.</p> <p>2021 Update:</p>

								<p>There are 345 small regulated MS4s in the Chesapeake Bay watershed (not including PennDOT and PA Turnpike Commission). Of these, 79 have waivers. Of the remaining 266 with permit coverage, 84% have approved PRPs.</p> <p>2022 Update: DEP continues to make progress on completing PRP reviews and approval. Approximately 10% of permittees in the Chesapeake Bay Watershed do not yet have approved PRPs.</p>
2.4.4S	Review and approve PennDOT's and PA Turnpike Commission's PRPs	PRPs are expected to be received by DEP in October 2022.	DEP	Chesapeake Bay Watershed	Summer 2023	The PRPs are expected to be large and complex but are expected to result in significant pollutant load reductions.		<p>2022 Update: This is a new milestone for 2022-2023.</p> <p>PennDOT's and PTC's PRPs were received on October 27 and 31, 2022, respectively. The PRPs will be reviewed by DEP Central Office. Central Office will coordinate with the DEP regional offices where collaborative BMP projects with municipal permittees are proposed.</p>
2.4.1W	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					<p>2020 Update: Project has been scoped with the help of DEP IT. Until funds are available to support the development, the system cannot be further developed and implemented.</p> <p>2021 Update: State funds have been made available through the Clean Water Fund. Project is in the intake queue for DEP Bureau of Information Technology.</p> <p>2022 Update DEP Bureau of Information Technology re-evaluated project and determine previous project cost provide to BCW was unrealistic so the rescoped project exceeds the project funding so project is currently on hold.</p>

Section 3. Countywide Actions

3.4.1	Track and report progress in Phase 3 WIP planning and	Development of Countywide Action Plans	DEP, Local planning leaders, External Coordinators	All Counties in CBWS	Phase 1 Begins July 2019	State staffing support		<p>2020 Update:</p>
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	<p>implementation in all counties.</p>	<p>(CAPs) in all counties in Pennsylvania's Chesapeake Bay Watershed.</p>			<p>Phase 2 Begins Feb 2020</p>	<p>Internal and External Coordination</p>		<p>Pilot counties submitted annual progress templates to DEP for their Countywide Action Plan in October. DEP met and discussed progress templates with each of the pilot counties. Tier 2 counties submitted their Draft Plans in October and are in the final stages of finalizing their CAPs. Tier 2 counties will submit their first annual progress report in 2021.</p> <p>2021 Update: Pilot counties submitted annual progress reports and 2022-23 CAP milestone updates to DEP for their Countywide Action Plans in September. DEP met and discussed progress templates and milestones with each of the pilot counties.</p> <p>Tier 2 counties submitted annual progress reports to DEP for their Countywide Action Plans in September. DEP met and discussed progress templates with each of the Tier 2 counties.</p> <p>All Tier 3 and 4 counties competed and submitted their CAPs to DEP in September 2021. DEP met and discussed CAP initiatives with each of the Tier 3 and 4 counties. DEP also conducted a "Transition to Implementation" webinar in December for the Tier 3 and 4 counties.</p> <p>County annual progress and two-year milestone updates are published to the DEP Countywide Action Plans website.</p> <p>2022 Update: Tier 2 counties submitted annual progress reports and 2022-23 CAP milestone updates to DEP for their Countywide Action Plans in September. DEP met and discussed progress templates and milestones with each of the Tier 2 counties.</p> <p>Pilot and Tier 3&4 counties submitted annual progress reports to DEP for their Countywide Action Plans in September. DEP met and</p>
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								discussed progress templates with each of the Pilot and Tier 3&4 counties. County annual progress and two-year milestone updates are published to the DEP Countywide Action Plans website.
3.4.1(i)	DEP staff will conduct a full review of each county CAP and develop a CAP Highlights, Trends and Programmatic Recommendations summary of findings with an accompanying spreadsheet that provides more details of each CAP item/initiative (with counties listed) for state and federal action leaders to utilize for strategic planning and policy making.		DEP	34 CAP Counties	March 2022			<p>2022 Update: This is a new milestone for 2022-2023.</p> <p>Tier 2 counties submitted annual progress reports and 2022-23 CAP milestone updates to DEP for their Countywide Action Plans in September. DEP met and discussed progress templates and milestones with each of the Tier 2 counties.</p> <p>Pilot and Tier 3&4 counties submitted annual progress reports to DEP for their Countywide Action Plans in September. DEP met and discussed progress templates with each of the Pilot and Tier 3&4 counties.</p> <p>County annual progress and two-year milestone updates are published to the DEP Countywide Action Plans website.</p>
3.4.1(ii)	Create a Healthy Communities, Healthy Waters annual report highlighting PA's progress and sharing county-based success stories.		DEP	Chesapeake Bay Watershed	September 2022			<p>2022 Update: This is a new milestone for 2022-2023.</p> <p>The 2021 Healthy Waters Healthy Communities Annual Report can be found on PA's Plan website.</p>
3.4.2	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. 2022-2023 Update: DEP will continue to contract with SRBC to assist in updated Tier 2 CAST runs, updating County CAP	DEP, Local planning leaders, External Coordinators	All Counties in CBWS	Phase 1 Begins January 2020	State staffing support Internal and External Coordination		<p>2020 Update: Tier 2 counties are in final stages of finalizing their CAPs. The Phase 3 WIP input file will be updated in 2021 to represent the Tier 2 CAPs.</p> <p>2021 Update: DEP and SRBC have worked closely to assist Pilot and Tier 3 and 4 counties with CAST scenarios. To facilitate this process, DEP and SRBC collaborated on the following: 1. Create a standardized and user-friendly BMP Template with directions, BMP crosswalk</p>

		<p>Toolboxes, and working on Acid Mine Drainage (AMD) initiatives.</p>						<p>and definitions and for counties plan their BMPs numeric goals. DEP/SRBC provided training and answered questions about the BMP Template.</p> <p>2. When counties submitted their BMP Template, SRBC created CAST scenarios and shared results in pie charts and tables via PowerPoint to be reviewed by DEP. SRBC and DEP discussed the CAST scenario results before presenting to each county.</p> <p>3. DEP/SRBC collaborated to present the CAST results, use the Toolbox to highlight areas of opportunity, and answer technical questions.</p> <p>4. DEP/SRBC presented the difference between CAST17 and CAST19 to each Tier 1 county and answer technical questions.</p> <p>5. DEP/SRBC worked together to investigate and find solutions to issues concerning wastewater and excess in the CAST19 model.</p> <p>6. SRBC is on track to complete Pilot and Tier 3 and 4 Snapshots and Implementation Toolboxes.</p> <p>7. SRBC provided a comprehensive QA/QC document for their contracted work for DEP. DEP did a QA/QC analysis of SRBC’s Franklin County CAST Scenario</p> <p>2022 Update: DEP and SRBC have worked closely to assist Tier 2 counties with CAST scenarios. To facilitate this process, DEP and SRBC collaborated on the following:</p> <p>1. Create a standardized and user-friendly BMP Template with directions, BMP crosswalk and definitions and for counties plan their BMPs numeric goals. DEP/SRBC provided training and answered questions about the BMP Template.</p> <p>2. When counties submitted their BMP Template, SRBC created CAST scenarios and shared results in pie charts and tables via PowerPoint to be reviewed by DEP. SRBC and DEP discussed the CAST scenario results before presenting to each county.</p> <p>3. DEP/SRBC collaborated to present the CAST results, use the Toolbox to highlight areas of opportunity, and answer technical questions.</p>
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								<p>4. DEP/SRBC presented the difference between Tier 2 2020 CAST county runs and answer technical questions.</p> <p>5. DEP/SRBC worked together to investigate and find solutions to issues concerning excess in the CAST19 model.</p> <p>6. SRBC completed Tier 2 Snapshots and Implementation Toolboxes.</p> <p>7. SRBC provided a comprehensive QA/QC document for their contracted work for DEP.</p> <p>8. SRBC assisted with Technical Updates involving CAST scenarios to the WIP3 Amendment in regard to Climate Change and Non-reporting programs. SRBC created procedures for these updates and participated on WIP3 evaluation calls with EPA CBPO.</p>
3.4.3	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		<p>2020 Update: Conservation Districts continue to use the PracticeKeeper system, as required by their Nutrient/Manure Management and Bay Technician agreements. PennDOT was added as a new reporting program for stormwater BMPs for 2020 progress. DCNR Recreation is working to report stormwater BMPs on non-MS4 land through PracticeKeeper.</p> <p>2021 Update: See above for CAP updates.</p> <p>PracticeKeeper data collection is improving with expanded use by County Conservation Districts with improved functionality including Partner (non-CCD) BMP Submission capability.</p> <p>2022 Update: See above for CAP updates.</p> <p>DEP staff is working with GeoDecisions to transfer data from PracticeKeeper to the new Data Warehouse</p> <p>For 2022 Progress, DEP worked with a new data reporter, the PA Turnpike Commission, to report their historic and current stormwater BMPs for 2022 Progress.</p>

									DEP staff will continue to work with DCNR Recreation to report stormwater BMPs on non-MS4 land through PracticeKeeper.
3.4.4	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 Pennsylvania's Chesapeake Bay Watershed	DEP	Phase 1: Tier 2 Counties Phase 2: Tier 3 and 4 Counties	Phase 1: December 2020 Phase 2: December 2021	State staffing support Internal and External Coordination			<p>2020 Update: Phase 1 CAPs are completed.</p> <p>2021 Update: Phase 1 and Phase 2 CAPs are completed and published to the DEP Countywide Action Plans website.</p> <p>Pennsylvania's Phase 3 WIP Amendment was submitted to EPA by December 31, 2021 and published to the DEP Pennsylvania's Plan website.</p> <p>2022 Update: EPA provided the evaluation of the draft amended Phase 3 WIP on April 18, 2022. DEP resubmitted the final amended Phase 3 WIP by the EPA deadline of July 18, 2022. EPA published their final evaluation on November 21, 2022. Pennsylvania's final amended Phase 3 WIP is published to the DEP website. PA's Plan</p>

Priority Initiative 5: Compliance

Section 2, State Actions, Programmatic and Narrative Commitments

2.5.1	Pass the Fertilizer Bill to achieve the identified nutrient reductions on urban and agriculture lands.				2019-2020 Legislative Session				<p>2020 Update: Fertilizer Bill was not passed in the 2019-2020 Legislative Session.</p> <p>2021 Update: Fertilizer Bill is being discussed in the 2020-2021 Legislative Session.</p> <p>2022 Update: The fertilizer bill was approved by the PA House and Senate</p>
2.5.2	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				<p>2020 Update: DEP is on track and currently developing draft permits to reissue for the beneficial use of sewage sludge, PAG-07, PAG-08, and PAG-09. One of the items for consideration is incorporation of the management of sewage</p>

								<p>sludge with the consideration of the total phosphorus content of the sewage sludge. No decisions have been made on what will or will not be in these draft permits to date.</p> <p>2021 Update: P-Index Version 3 is still in development and testing, hopefully to be released in early 2022. DEP is doing outreach on the changes to the general permits that authorize land application of biosolids which include the incorporation of the -index to the biosolids management requirements. DEP is coming up against significant opposition to the proposed P-index requirement.</p> <p>2022 Update: DEP has developed pre-draft General Permits for the beneficial use of sewage sludge (AKA biosolids). These permits were shared with the Agricultural Advisory Board, the Water Resource Advisory Committee, as well as a separate DEP stakeholder workgroup. DEP presented the proposed changes to the various stakeholder groups and gathered feedback. The PA legislature has directed the Legislative Budget Finance Committee to “study the costs and methods for permit holders to comply with the proposed revisions to General Permit PAG-07, General Permit PAG-08 and General Permit PAG-09 called for under Pennsylvania’s Phase 3 Chesapeake Bay Watershed Implementation Plan.” DEP continues work on these permits.</p>
2.5.3	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. 2022-2023 Update: PFBC is participating in a sediment reduction project using stream restoration BMPs with a floodplain approach on	DEP, DCNR, Other Agencies responsible for the management of state lands, Governor’s Office	Watershed-wide	January 2021			<p>2020 Update: The Pennsylvania Fish and Boat Commission (PFBC) is partnering with DCNR’s Bureau of Forestry to conduct a pilot riparian forest buffer implementation project along the Juniata River on four parcels owned by PFBC, which will total approximately eight acres of buffer planting. These plantings are scheduled to take place in April 2021. If all goes well with these pilot plantings, PFBC will look into additional parcels owned by the Commission for potential riparian forest buffer implementation.</p>

		PFBC’s headquarters property in Dauphin County. Goals of the project are to reduce sediment and nutrient loading to the Chesapeake Bay, and Restore stable stream, wetland, and floodplain system. This project is anticipated to be completed in 2022.							<p>2021 Update: The partnership plantings with PAFBC took place in April 2021, and PAFBC is working with PA DCNR to identify additional locations for plantings in 2022.</p> <p>DCNR is also exploring options for Lawn Conversion project implementation on DCNR-controlled lands, such as at state park and state forest offices.</p> <p>2022 Update: PFBC again partnered with DCNR to plant 1.5 acres of streamside buffer along the Yellow Breeches Creek, Cumberland County on the PFBC’s Camp Hill Access property.</p>
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Section 2, State Actions, Numeric Commitments

2.5.1A	Implement NPDES Concentrated Animal Feeding Operation (CAFO) Program Delegation	<p>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.</p> <p>2022-2023 Update: Implement proactive outreach strategies to regulated community to ensure PAG-12 general permit renewal by April 2023.</p>	DEP		Ongoing				<p>2020 Update: A modification of the PAG-12 General Permit was issued by DEP on October 31, 2020 requiring the submission of NOIs to remain covered under PAG-12. DEP has submitted an end of year CMS report and will continue to provide CAFO permit and compliance information to ICIS.</p> <p>2021 Update: DEP and EPA have attended the Agricultural Advisory Board (AAB) CAFO workgroup as they deliberate areas for streamlining the permit application and reporting process. DEP will work with the AAB as well as EPA to ensure that there is transparent and consistent communications regarding the PAG-12 and it remains on schedule for renewal.</p> <p>2022 Update: EPA has reviewed DEP’s proposed draft PAG-12 general permit and has participated in AAB meetings. EPA proposed additional elements to the PAG-12, including provisions related to the Chesapeake Bay TMDL and identification of additional BMPs to meet the TMDL, as needed. The public comment period for the draft PAG-12 ended on October 31, 2022. Four sets of comments were received that</p>
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									included two requests by industry organizations to extend PAG-12 to provide sufficient time to vet new requirements relating to TMDL consistency. DEP published the PAG-12 extension on December 17, 2022.
2.5.2A	Complete complaint follow-up for CAFO and non-CAFO facilities		DEP, SCC, CDs		Ongoing				<p>2020 Update: DEP’s regional offices complete this activity on an ongoing basis.</p> <p>2021 Update: DEP’s regional offices complete this activity on an ongoing basis.</p> <p>2022 Update: DEP’s regional offices complete this activity on an ongoing basis.</p>
2.5.3A	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				<p>2020 Update: Chesapeake Bay Ag Inspection Program (CBAIP) Standard Operating Procedure was updated in May 2020. The 2019-2020 Annual Inspection Summary has been developed and published to the DEP Ag Compliance website.</p> <p>2021 Update: Chesapeake Bay Ag Inspection Program (CBAIP) Phase 1 (CBO-INSP-001) Standard Operating Procedure was updated in May 2021. The 2020-2021 Agriculture Annual Inspections Summary was published to the DEP website in December 2021.</p> <p>2022 Update: The CBAIP Phase 1 SOP and the CBAIP Phase 2 SOP were merged and published on the DEP website in May 2022. The 2021-2022 Agriculture Annual Inspections Summary was published to the DEP website in Fall 2022, with a press release announcement as well.</p>
2.5.4A	Implement Chesapeake Bay Agriculture Inspection Program, Phase 2 Pilot, with an emphasis on meeting both state planning and implementation	2022-2023 Update: The CBAIP Phase 2 program will continue to be expanded as more counties complete their Phase 1 inspections.	DEP, SCC, CDs, NRCS, Private Consultants	Chesapeake Bay	Beginning July 2020	Available funding for Technical Assistance and construction of BMPs remains a concern.			<p>2020 Update: Chesapeake Bay Ag Inspection Program – Phase 2 Standard Operating Procedure was finalized June 2020 along with the Phase 2 Inspection Program Funding Guidelines (provided via DEP Environmental Stewardship Funds). Phase 2 Inspections have been/will be</p>

	requirements on non-CAFO operations.							<p>conducted in Lancaster, Chester, and Adams counties by the conservation districts, and in York County by the DEP Southcentral Regional Office beginning in July 2020.</p> <p>2021 Update: CBAIP Phase 2 (CBO-INSP-002) Standard Operating Procedure was updated in May 2021. The 2020-2021 Agriculture Annual Inspections Summary was published to the DEP website in December 2021.</p> <p>2022 Update: The CBAIP Phase 1 SOP and the CBAIP Phase 2 SOP were merged and published on the DEP website in May 2022. The 2021-2022 Agriculture Annual Inspections Summary was published to the DEP website in Fall 2022, with a press release announcement as well.</p>
2.5.5A	Participate in EPA’s formal assessment of Pennsylvania’s Animal Agriculture Programs	2022-2023 Update: EPA will conduct a follow-up assessment of Pennsylvania’s animal agriculture programs to the initial 2015 assessment.	EPA, DEP, SCC, PDA, CCDs	Chesapeake Bay/Statewide	Beginning January 2022			<p>2021 Update: DEP and SCC staff responded to informal questions and began the review of the questionnaire. This is a new milestone for 2022-2023.</p> <p>2022 Update: EPA provided DEP with a questionnaire to complete in December 2021. DEP coordinated the completion of the questionnaire and submitted to EPA, meeting the deadline of February 11, 2022. EPA held meetings with DEP Central Office, DEP Southcentral and Northcentral Regions, PDA and SCC, as well as four conservation districts (Lycoming, Snyder, Franklin, and Lancaster) throughout March 2022. EPA conducted file reviews of CAFOs and CAOs, provided by DEP and the conservation districts. EPA provided the draft report to DEP on July 8, 2022, and DEP submitted comments on July 22, 2022, meeting the EPA deadline. EPA provided the final report to DEP on December 22, 2022.</p> <p>The final report noted that “DEP has made progress since the 2015 assessment in its efforts to reduce nutrient and sediment loads</p>

									in the Chesapeake Bay watershed” and that “Pennsylvania has responded to the 2015 recommendations and made progress towards meeting their 2025 goals. However, there are challenges that impact the pace and scale of program implementation. Notably, the scale of agriculture coupled with the demand for assistance, funds, and one-on-one support for farmers, impacts the state’s ability to meet 2025 goals.”
2.5.6A	Finalize and commence utilization of the CAFO Compliance Evaluation and Inspection (CEI) Standard Operating Procedure (SOP).	2022-2023 Update: DEP developed the CAFO CEI SOP to ensure consistent and standardized evaluation and tracking of CAFO inspections.	DEP	Chesapeake Bay/Statewide	July 2022				2022 Update: CAFO CEI SOP has been released and is currently being utilized by DEP regional staff. The CAFO CEI SOP has also been provided to EPA.
2.5.7A	Publish revision to the Manure Management Manual Technical Guidance Document (TGD).	2022-2023 Update: DEP will seek public comment on the revised Manure Management Manual Technical Guidance Document	DEP	Chesapeake Bay/Statewide	Draft: December 2022 Final: December 2023				2022 Update: Revisions to the Manure Management Manual Technical Guidance Document are under development. Draft is scheduled to be published in Spring 2023.
2.5.8A	Revise and approve five-year Nutrient and Manure Management Delegation Agreement with the conservation districts to include additional Manure Management Required Output Measures (ROMs)	2022-2023 Update: DEP and SCC will revise and update the five-year Nutrient and Manure Management Delegation Agreement to include Manure Management Planning and/or status review metrics for the Manure Management component. This agreement also includes a prioritization of identification of Concentrated Animal Operations (CAOs).	DEP/SCC	Chesapeake Bay/Statewide	July 2022				2022 Update: This is a new milestone for 2022-2023. Delegation agreements were approved at the July 2022 SCC meeting and will be in place from July 1, 2022 June 30, 2027.
2.5.9A	Hire 1 Environmental Engineer / Environmental Engineer Specialist to support agricultural permitting and compliance activities	2022-2023 Update: Environmental Engineer / Environmental Engineer Specialist will provide additional support and oversight for CAFO permitting and conservation district technical assistance	DEP	Chesapeake Bay/Statewide	February 2023				2022 Update: This position is vacant and currently being reclassified and reposted.

2.5.10A	Hire 2 Water Program Specialists to support agricultural compliance, inspection, and enforcement activities, to include Nutrient and Manure Management, Erosion and Sediment Control for Agriculture, Chesapeake Bay Agricultural Inspection Program (CBAIP) and CAFO Program	2022-2023 Update: Water Program Specialists will provide additional support and oversight for non-CAFO and CAFO compliance, inspection, and enforcement	DEP	Chesapeake Bay/Statewide	February 2023				2022 Update: One water program specialist is hired and supporting agriculture compliance, inspection and enforcement activities. One position is currently vacant. Selection is in-process as of December 2022.
2.5.11A	Hire 1 Water Quality Specialist (WQS) to conduct inspections on CAFO and non-CAFO agricultural operations	2022-2023 Update: The Northeast Regional Office will hire a Water Quality Specialist to conduct CAFO and non-CAFO inspections	DEP	Northeast Counties	December 2023				2022 Update: This is a new milestone for 2022-2023. Communication with the Regional Office is ongoing.
2.5.12A	Nutrient Management Implementation – during compliance inspections, DEP staff will continue to promote the benefits of implementation of Nutrient and Manure Management Plans, which include planned rates for land application of manure and nutrients, manure application setbacks and buffers, and generally include animal waste management systems (AWMS), animal concentration area management and barnyard runoff controls, pasture management, etc. DEP staff will provide contact information, as needed, for certified Nutrient Management Plan specialists	2022-2023 Update: DEP Water Quality Specialists conduct inspections on CAFO and non-CAFO agricultural operations. All agricultural operations that land apply manure, regardless of animal type, are regulated under 25 Pa. Code §91.36	DEP	Chesapeake Bay/Statewide	Ongoing through December 2023				2022 Update: DEP’s regional offices complete this activity on an ongoing basis.
2.5.13A	Erosion and Sediment Control - during compliance inspections, DEP staff will continue to	2022-2023 Update: DEP Water Quality Specialists conduct inspections on CAFO and non-CAFO	DEP	Chesapeake Bay/Statewide	Ongoing through December 2023				2022 Update: DEP’s regional offices complete this activity on an ongoing basis.

	<p>promote the benefits of implementation of erosion and sediment control plans, which generally include conservation tillage and/or no-till practices, cover crop, contour farming, strip cropping, field borders, terraces, diversions, grassed/natural/rock-lined waterways, barnyard runoff controls and animal heavy use area (AHUA) protection, etc. DEP staff will provide contact information, as needed, for local conservation district or private consultant technical assistance.</p>	<p>agricultural operations. All agricultural operations with plowable/tillable land or animal heavy use areas (AHUAs) are regulated under 25 Pa. Code §102.4(a).</p>						
<p>2.5.1S</p>	<p>Complete the Pollutant Reduction or Total Maximum Daily Load Plan Reviews for the 2018 Municipal Separate Storm Sewer System (MS4) permits</p>	<p>Complete technical review and issue permits</p> <p>2022-2023 Update: this Action Number will be merged with 2.4.3S</p>	<p>DEP, MS4 permittees</p>	<p>Statewide</p>	<p>2020</p>	<p>MS4s not addressing DEP review comments, staff shortages</p>		<p>2020 Update: DEP has reviewed and approved the majority of PRPs and TMDL Plans submitted in 2017. There are a few complicated cases, including cases under litigation, that have delayed completion of reviews.</p> <p>2021 Update: The majority of MS4 permittees within the Chesapeake Bay Watershed have approved PRP plans and are working on BMP implementation to meet the pollutant load reduction obligations of their MS4 permits. There are currently 43 permittees in the Bay Watershed without approved PRPs. DEP is working with these permittees to resolve the technical deficiencies with their PRPs to that they can be approved.</p> <p>2022 Update: While the majority of permittees in the Chesapeake Bay Watershed have approved PRPs, DEP continues to struggle to get the remaining permittees without approved PRPs to respond to technical deficiency letters and provide the information needed to generate a PRP that can be approved. EPA offered technical assistance to DEP to address this issue. EPA and DEP are working together to</p>

									determine a path forward to get permittees to the point where their PRPs can be approved.
2.5.2S	Develop the 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	Beginning 2019				<p>2020 Update: DEP has prepared conceptual plans for the next permit term and has solicited and received input from the regulated community and other stakeholders.</p> <p>2021 Update: DEP is continuing to work on next permit and is accepting comments from interested parties through the MS4 resource account (RA-EPPAMS4@pa.gov).</p> <p>2022 Update: DEP is coordinating with EPA on the development of the next permit term. It is anticipated that an announcement on the timeline for the future permit term will be made soon.</p> <p>DEP has extended the MS4 General Permit (PAG-13) to March 15, 2025 and has formed a workgroup that includes EPA staff. The workgroup will meet at least 8 times from November 2022 to March 2023 and will help inform DEP's development of the reissued PAG-13.</p>
2.5.3S	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				<p>2020 Update: An end of year CMS report has been submitted, and DEP will continue to provide permit and compliance information to ICIS.</p> <p>2021 Update: An end of year CMS report will be submitted during the Fall of 2021 for FFY 2021, and DEP will continue to provide permit and compliance information to ICIS.</p> <p>2022 Update: An end of year CMS report was submitted during the Fall of 2022 for FFY 2022, and DEP will continue to provide permit and compliance information to ICIS.</p>

<p>2.5.4S</p>	<p>Develop the NPDES Industrial Stormwater Permit</p>	<p>2022-2023 Update: Renew the PAG-03 general permit.</p>	<p>DEP</p>	<p>Statewide</p>	<p>2019 through 2021</p>				<p>2020 Update: A draft of the PAG-03 general permit for reissuance has been developed and is under legal review.</p> <p>2021 Update: The current PAG-03 has been administratively extended for one year. The draft PAG-03 is under review.</p> <p>2022 Update: DEP published an initial draft of PAG-03 on January 22, 2022. EPA objected to PAG-03 on February 22, 2022. DEP resolved EPA's objection on June 3, 2022. DEP published a second draft permit on August 20, 2022. The final PAG-03 was published in the PA Bulletin on December 24, 2022 and will become effective on March 24, 2023.</p>
<p>2.5.5S</p>	<p>Continue to implement the NPDES Industrial Stormwater Program Delegation, to include permitting, compliance, inspection, and enforcement.</p>	<p>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.</p>	<p>DEP</p>	<p>Statewide</p>	<p>Ongoing</p>				<p>2020 Update: An end of year CMS report has been submitted and DEP will continue to provide permit and compliance information to ICIS.</p> <p>2021 Update: An end of year CMS report has been submitted and DEP will continue to provide permit and compliance information to ICIS.</p> <p>2022 Update: An end of year CMS report was submitted during the Fall of 2022 for FFY 2022, and DEP will continue to provide permit and compliance information to ICIS.</p>
<p>2.5.6S</p>	<p>Continue to implement the NPDES Construction Stormwater Program Delegation, to include permitting, compliance, inspection, and enforcement.</p>	<p>Pennsylvania's Chapter 102 requires NPDES permitting for an acre or more of earth disturbance related to construction activities. The requirements also include post-construction stormwater management on all permitted sites. Inspection metrics and</p>	<p>DEP</p>	<p>Statewide</p>	<p>Ongoing</p>				<p>2020 Update: DEP continues to implement the NPDES program under Chapter 102 with the assistance of delegated conservation districts. An end of year CMS report has been submitted and DEP will continue to provide permit and compliance information to ICIS.</p> <p>2021 Update: DEP continues to implement the NPDES program under Chapter 102 with the</p>

		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.						assistance of delegated conservation districts. An end of year CMS report has been submitted and DEP will continue to provide permit and compliance information to ICIS. 2022 Update: DEP continues to implement the NPDES program under Chapter 102 with the assistance of delegated conservation districts. An end of year CMS report has been submitted and DEP will continue to provide permit and compliance information to ICIS.
2.5.7S	Continue water quality demonstration requirements for post-construction stormwater management	Beginning in 2019, DEP's Ch 102 program overhauled the water quality approach and started to require every applicant to perform a quantitative demonstration that their project will not cause post-construction TSS and nutrient loads in excess of pre-construction loads. Prior to this requirement, there was a presumption that if volume management was met water quality requirements would also be met.	DEP	Statewide	Ongoing			2022 Update: This is a new milestone for 2022-2023. DEP continues to require Chapter 102 NPDES permittees to demonstrate that their projects will not cause post-construction total suspended sediment (TSS) and nutrient loads in excess of pre-construction loads using DEP-approved calculations.
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			2020 Update: DEP continues to implement the NPDES program. An end of year CMS report has been submitted and DEP will continue to provide permit and compliance information to ICIS. 2021 Update: DEP continues to implement the NPDES program. An end of year CMS report has been submitted and DEP will continue to provide permit and compliance information to ICIS. 2022 Update: DEP continues to implement the NPDES program. An end of year CMS report has been

									submitted and DEP will continue to provide permit and compliance information to ICIS.

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

- 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. 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.

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.

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).

Resources Needed: Technical & Funding = This field will note technical and financial resources needed/outstanding to implement the program (Description).

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