Agriculture				
Target	Milestone (WIP page	Deliverable	Lead	Comments/Status Updates
Date	reference)*		Agency	
See list of deliverables for month-by-month target dates.	Develop and implement an Agricultural Compliance and Enforcement Strategy.	Establish a policy of compliance focusing on planning requirements with the goal of reasonable assurance that all PA farms have met applicable regulatory requirements by having required plans.	DEP	See attached "DEP Strategy to Enhance Pennsylvania's Chesapeake Bay Restoration Effort" document for more detailed information and background on Pennsylvania's efforts to improve local water quality, and by virtue of that, the Chesapeake Bay.  December 2016 Status: In Fall, 2016, DEP and Conservation District staff have commenced the ag inspections. The goal is t inspect 10% of the agricultural operations in the Bay Watershed annually over the course of ten years. The inspection includes identifying if the operations are meeting the regulatory requirements of having the required plans.  December 2017 Status: Ongoing.
		January-February 2016:  Public release of the strategy across many forums	DEP PDA State Conservation Commission (SCC)	Add communication of this new strategy and the voluntary self-reporting tool to materials used by conservation districts (CDs) during site visits and materials distributed by PA Farm Bureau, PennAg, PA Association of Conservation Districts and Penn State Extension at winter meetings.  December 2016 Status: The new strategy was communicated via multiple press releases and webinars beginning in early 2016. The press releases were printed in the local

			newspapers and the Bay Journal. The voluntary self-reporting tool (farm conservation practice inventory) was communicated to ag stakeholders via direct mailings and online. Approximately 20,000 surveys were mailed by PSU in early 2016. Of those, 6,780 completed surveys were submitted to Penn State, which is almost a 35% response rate.  December 2017 Status: Public release completed in 2016. Ongoing marketing and outreach efforts continue.
	July 2016: CD and DEP Inspection & Compliance Effort. Public announcement of beginning of inspections.	DEP	CDs and DEP staff begin to conduct inspections to ascertain compliance with regulatory planning requirements.  December 2016 Status: DEP staff completed six training sessions for the Chesapeake Bay Initial Ag Inspection program, two sessions for DEP staff and four sessions for conservation district staff that will be conducting these initial inspections.  The training focused on basic Chesapeake Bay information and instruction on implementation of the Initial Ag Inspection Standard Operating Procedures. More than 75 conservation district staff were trained to conduct these initial ag inspections. DEP began conducting these inspections in August; conservation districts began in October.

Begin July 2016, then ongoing:	PDA SCC	Preliminary reports from DEP regions are being provided bi-weekly; reporting requirements for each participating district was established in the May 2016 SOP and will be conducted quarterly, with the first reports from the conservation districts due to DEP in January 2017.  April 2017 Update: In the first three months of the Agriculture Compliance Inspection initiative, ending December 31, 2016, regional DEP staff performed 177 inspections and the county conservation districts performed 326 inspections. In addition, Lancaster County Conservation District has agreed to provide their reports monthly, given the intense focus on the status of Lancaster County.  December 2017 Status: Completed.  Assist PDA, SCC and private sector with a cooperative project to obtain available
Expand Plan Development Capacity.	DEP	supplemental EPA funding to build technical assistance capacity for developing Manure Management Plans and Ag Erosion and Sediment (E&S) Control Plans in the private sector.  Review with PA NRCS options for better targeting existing funding and building capacity to help meet producers' demand for technical assistance in developing and
_	ongoing:  Expand Plan Development	ongoing: SCC DEP Expand Plan Development

	Plans and Ag E&S Control Plans.
	December 2016 Status:
	PA in the Balance conference in November
	2016 focused on key elements that will need
	to be addressed in the coming years, one of
	which is technical assistance capacity
	building. A follow-up meeting with private
	consultants, NRCS, PDA/SCC, DEP,
	Conservation Districts, and other
	stakeholder groups is scheduled for January
	2017 to identify the best ways to meet the
	planning and technical assistance demand.
	December 2017 Status: In October 2017,
	DEP's new Agricultural Planning
	Reimbursement Program opened to all
	agricultural operators/landowners in
	Pennsylvania's Chesapeake Bay watershed.
	Through this program, farmers can be
	reimbursed for fees they've paid to consultants
	to create manure management plans, nutrient
	management plans, and agricultural erosion
	and sediment control plans. Reimbursement
	funds are allocated based on impact to the
	Chesapeake Bay and are available on a first-
	come, first-served basis. The registration
	deadline for this program is April 1, 2018.
	Details about how to apply, with whom to
	apply, reimbursement levels and contact
	information for county-level coordinators:
	http://www.dep.pa.gov/Business/Water/Penns
	ylvania%E2%80%99s%20Chesapeake%20Ba
	y%20Program%20Office/agriculture/Pages/F

### Jurisdiction Restore Clean Water Action Items PA 2016-2017 Programmatic Milestones – Status Update

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			unding-Programs.aspx
			An informational webinar about the program:
			http://www.larsondesigngroup.com/agricultur
			al-planning-reimbursement-program-
			informational-webinar/
			Through the end of December 2017, DEP has
			registered 145 plans through this program, for
			a total of 24,905 acres.
	July 1, 2016: Inspection &	DEP	DEP, in coordination with CDs, will conduct
	Compliance Effort. DEP, in		inspections of 1,100 farms in its southcentral
	coordination with CDs, will		and northcentral regions in the first year.
	use targeted approach (using		
	regional office Waterways		December 2016 Status: DEP staff completed
	and Wetlands staff)		six training sessions for the Chesapeake Bay
	,		Initial Ag Inspection program, two sessions
			for DEP staff and four sessions for
			conservation district staff that will be
			conducting these initial inspections.
			and the state of t
			The training focused on basic Chesapeake
			Bay information and instruction on
			implementation of the Initial Ag Inspection
			Standard Operating Procedures. More than 75
			conservation district staff were trained to
			conduct these initial ag inspections. DEP
			plans began conducting these inspections in
			August; conservation districts began in
			October.
			Dualinain and a surface of the surfa
			Preliminary reports from our regions are being
			provided bi-weekly; reporting requirements

	for each participating conservation district was established in the May 2016 SOP and will be conducted quarterly, with the first reports from the conservation districts due to DEP in January 2017.
	April 2017 Update: In the first three months of the Agriculture Compliance Inspection initiative, ending December 31, 2016, regional Pennsylvania Department of Environmental Protection (PADEP) staff performed 177 inspections and the county conservation districts performed 326 inspections. In addition, Lancaster County Conservation District has agreed to provide their reports monthly, given the intense focus on the status
	of Lancaster County.  December 2017 Status: From July 1, 2016 – June 30, 2017, the following inspection information was collected:  • 2,080 small farms (non-CAFOs) were inspected under the CB Ag Inspection Program  • 1,572 farms were inspected by Conservation Districts  • 508 farms were inspected by DEP regional offices  • 743 farms were inspected under the Act 38 Nutrient Management Program
	• Total of 393,426 acres were inspected within PA's Bay Watershed.

	July 1, 2016 (with new CD contracts): Inspection & Compliance Effort. In coordination with DEP, each CD (participating) conducts inspections at a minimum of 50 farms per Bay technician.	CDs	CDs, in coordination with DEP, will conduct 2,200 inspections per year.  Completion of inspections in all counties in the Bay Watershed would take ten years.  December 2016 Status:  Most of the CDs (29) have entered into agreements. Inspection reporting will begin in January 2017, per inspection SOP.  December 2017 Status:  From July 1, 2016 – June 30, 2017, the following inspection information was collected:  • 2,080 small farms (non-CAFOs) were inspected under the CB Ag Inspection Program  • 1,572 farms were inspected by Conservation Districts  • 508 farms were inspected by DEP regional offices  • 743 farms were inspected under the Act 38 Nutrient Management Program  • Total of 393,426 acres were inspected within PA's Bay Watershed.
Enhanced DEP Compliance, Enforcement, and Monitoring Strategy	Current estimate of 35-40% compliance rate for non-CAFO agricultural operations; 95% compliance for non-CAFO agricultural operations within 10 years.	DEP CDs	December 2016 Status: DEP staff completed six training sessions for the Chesapeake Bay Initial Ag Inspection program. Two sessions for DEP staff and four sessions for conservation district staff that will be conducting these initial inspections.

The training focused on basic Chesapeake Bay information and instruction on implementation of the Initial Ag Inspection Standard Operating Procedures. More than 75 conservation district staff were trained to conduct these initial ag inspections. DEP plans to begin conducting these inspections in August; conservation districts may begin at that time, too, but a majority of these inspections will be conducted outside of the late summer-early fall time period.

DEP staff began conducting Chesapeake Bay Initial Ag Inspection in September 2016, with conservation districts beginning these inspection October 2016. Preliminary reports from our regions are being provided biweekly; reporting requirements for each participating conservation district was established in the May 2016 SOP and will be conducted quarterly, with the first reports from the conservation districts due to DEP in January 2017.

April 2017 Update: In the first three months of the Agriculture Compliance Inspection initiative, ending December 31, 2016, regional Pennsylvania Department of Environmental Protection (PADEP) staff performed 177 inspections and the county conservation districts performed 326 inspections. In addition, Lancaster County Conservation District has agreed to their reports monthly, given the intense focus on

			the status of Lancaster County.  December 2017 Status: Chesapeake Bay Ag Inspection Program compliance metrics:  • 65% of farms met planning requirements if they were required to have a complete Manure Management Plan upon initial inspection.  • 63% of farms met planning requirements if they were required to have a complete Ag E&S Plan upon initial inspection.  http://files.dep.state.pa.us/Water/Chesapea
			keBayOffice/FINAL_CBAIP_Annual%20S ummary_June.17.pdf
	July 2016: Revise DEP Agricultural Compliance, Enforcement, and Inspection Standard Operating Procedures (SOP) for Non- CAFO farms.	DEP	December 2016 Status: Compliance, Enforcement, and Inspection SOP for Non-CAFO Farms (BCW-INSP- 019) was reviewed/revised and continues to be integrated in the Bureau of Clean Water operations.
			December 2017 Status:  Compliance, Enforcement, and Inspection SOP for Non-CAFO Farms (BCW-INSP- 019) was reviewed/revised and continues to be integrated in the Bureau of Clean Water operations.
			Initial Ag Inspection SOP developed to support initial ag inspection effort outlined

		in "reboot" strategy. Final SOP completed May 2016. SOP was revised in June 2017 as per feedback from EPA and Conservation District and DEP Regional Office staff.  http://files.dep.state.pa.us/Water/Chesape akeBayOffice/Final_SOP_Chesapeake_Bay_Agricultural_Inspection_Program.pdf
July 2016: Improve/revise DEP program guidance and data management systems to implement increased compliance and inspection program.	DEP	December 2016 Status: Initial Ag Inspection SOP developed to support initial ag inspection effort outlined in "reboot" strategy. Drafts developed with Conservation District review/input and onfarm testing. Final SOP completed May 2016.  http://files.dep.state.pa.us/Water/Chesape akeBayOffice/Final SOP Chesapeake Bay Agricultural Inspection Program.pdf  Compliance, Enforcement, and Inspection SOP for Non-CAFO Farms (BCW-INSP-019) was reviewed/revised and continues to be integrated in the Bureau of Clean Water operations.  December 2017 Status: WorldView PracticeKeeper (PK) software roll-out to all Districts occurred in Summer 2017.  The Ag Inspection Module was developed in Summer – Fall 2017. This module will be used to assist in the tracking and reporting of inspections, inspection outputs, and BMP

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			data collection.
			Two webinar trainings were held in October and November 2017, with Conservation Districts commencing the use of the PracticeKeeper geodatabase for the Bay Ag Inspections in November 2017.
			The target date for DEP Regional Offices to commence use of PK for non-CAFO Bay ag inspections is January 2018.
			Tablets/laptops were purchased for participating Conservation Districts for inspections/data collection. iPads have been purchased for DEP Regional Office staff for inspections/data collection.
	July 2016: Complete release of new Agricultural Operation Inspection Report form (3700-FM-BCR0489), which will aid in establishing consistent data collection and reporting by field staff.	DEP	December 2016 Status: Developed new ag inspection form to be used with the Chesapeake Bay initial ag inspections in May 2016. (3800-FM-BCW0524). http://files.dep.state.pa.us/Water/ChesapeakeBayOffice/Final_Initial_Inspection_Report.pdf  Continued to utilize Agricultural Operation Inspection Report form for DEP inspections, inspections outside Chesapeake
			inspections, inspections outside Chesapeake Bay watershed and follow-up inspections. This document is being revise to reflect organization change and improvements identified since it was introduced in July 2015. (BCW-FM-BCW0523A)

				December 2017 Status: Revised ag inspection form to be used with the Chesapeake Bay initial ag inspections in September 2017. (3830-FM-BCW0524) http://www.elibrary.dep.state.pa.us/dsweb/View/Collection-13655  Developed new form to be used to collect Ag BMP data in September 2017. (3830-FM-BCW0524a). http://www.elibrary.dep.state.pa.us/dsweb/View/Collection-13656
		January 2016: Support Ag Ombudsman Program with public release of two new informational pamphlets – 1) "Manure Spreading in PA" and 2) "Manure Sampling and Spreader Calibration"	SCC PDA DEP Ag Ombudsman	December 2016 Status: Completed.  Brochures prepared by Ag Ombudsman Program and distributed to conservation districts and others.  December 2017 Status: Continued distribution.
See list of deliverables for month-by-month target dates.	Implement a methodology to count, report and verify BMPs that are installed voluntarily, without state or federal cost-share assistance using the BMP tracking system developed.	Collection of data on Manure Management Plans and other specific BMPs	Penn State PDA DEP PA Farm Bureau PACD	Farmers/ag operations able to self-report voluntary practices implemented without state or federal funding.  December 2016 Status: Completed.  Penn State University and DEP collaborated on the voluntary self-reporting survey. The results of the self-reporting survey were provided, along with the Ag Workgroup

			required third-party statistical analysis, to the CBP Partnership Ag Workgroup throughout the fall and finally in December 2016. Data collected included Manure Management Plans, Ag E&S Plans, Conservation Plans, and implementation of structural BMPs. Press release followed.
Per	echanism.	Penn State PDA DEP PA Farm Bureau PACD	December 2016 Status: Completed.
sel me Ch inp	nuary 2017: Verify 10% of lf-reported BMP data to eet requirements of hesapeake Bay Program for put into the Bay Watershed odel	Penn State	As stated in Pennsylvania's BMP Verification Program Plan, third-party verifiers (e.g., Penn State Extension) may be utilized to perform verification of best management practices. Since the self- assessment farm inventory was produced by Penn State, all identifying information is held by Penn State and will not be released. The information gleaned from the assessments and on-site verification will be provided to the Department as aggregate data at the county level. The survey information is considered research and is not open to FOIA or Right to Know. Consequently, the on-site verification must be executed by the Penn State staff.

	Staff from the Bureau of Clean Water and the
	Bureau of Waterways Engineering and
	Wetlands coordinated training efforts and
	worked together with the University of
	Maryland and Chesapeake Bay Program, Penn
	State University, Penn State Extension, the
	State Conservation Commission, and the
	Lancaster County Conservation District. The
	training materials were developed
	collaboratively with staff from the State
	Conservation Commission and the Lancaster
	County Conservation District.
	Training events were held on July 18 in
	Lancaster and July 28, 2016, in State College.
	Approximately 40 Penn State Extension
	educators were trained in the verification
	process. Topics of the training included
	Chesapeake Bay 101; Biosecurity; Act 38,
	Manure Management, Ag E&S and
	Conservation Plans; Resource Improvement
	(RI) Practice Verification and Plan
	Administrative Completeness Reviews. The
	training for these Penn State Extension staff
	ended with a group exercise that "tested"
	these staff in the performance of a mock
	verification visit.
	Farm visits were conducted in August and
	September 2016. Agents were assigned
	farmers from the subsample. The agents were
	responsible for setting up the visits with
	participating farmers.
•	

				The instructions for the survey indicated the possibility that respondents might be chosen for a farm visit, which limited surprise and maximized farmer cooperation in agreeing to host farm visits. Agents contacted the farmers chosen for visits by letter and by phone to schedule visits. Consistent with the confidentiality of the survey responses and to eliminate potentials for bias, the agents were not provided participating farmers' survey responses. A total of 711 farms were visited, 10.48% of the total population of respondents.
See list of deliverables for month-by-month target dates.	Ongoing Cost-Effective BMP Data Collection Efforts	Ongoing: Conservation Technology Information Center (CTIC) Transect Survey	Capital Resource Conservation & Development Area Council	A transect survey pilot project in five counties is complete; it will be used to estimate (at a confidence interval of 90 percent) data on the use of cover crops.  December 2016 Status: Completed.  Transect Survey was approved as a method for verification by the Ag Workgroup in November 2016. The data will be used to estimate the use of cover crops.
		Ongoing: USDA-NRCS remote sensing pilot  Data due to DEP from NRCS by February 2016	USDA-NRCS	USDA-NRCS and DEP are collaborating on a remote sensing pilot project to determine if non-cost-shared BMPs can be documented through the use of aerial imagery.
		Data to be reviewed by July 2016		December 2016 Status: Completed.  Remote Sensing Project was completed and results were shared with the Ag Workgroup in

				July 2016. Further statistical analysis and documentation was requested. This was provided in November 2016. The Ag Workgroup has approved the concept, but not the incorporation of the final results into the model. Further discussions with NRCS and EPA to resolve remaining issues are planned.
2016	Implement targeted funding efforts in the Chesapeake Bay watershed, with special attention to funding agricultural or urban stormwater projects, and where geography and land use are amenable to successful BMP implementation.	Reallocate additional \$1,000,000 in state-provided water quality funding to Chesapeake Bay watershed work.	DEP	December 2016 Status: Gov. Wolf announced a new federal and state partnership between PA, USDA and EPA which provided an additional commitment of \$12 million in state funds in fiscal year 2016 to further the implementation of the Restoration Strategy and help reach 2025 nutrient and sediment reduction goals. This funding will provide:  • \$2.5 million for additional riparian forest buffer funding (DCNR)  • \$4 million to implement high priority agricultural conservation practices (DEP/PDA)  • \$1 million for agricultural practices installed through projects implemented by Conservation Districts from PA Department of Agriculture  • \$1.5 million to help farmers finance the development of the state-required nutrient/manure management or agricultural erosion and sediment control plans through a conservation plan reimbursement program (DEP)  • The remaining \$2.8 million will be directed from existing sources, programs

			and funds from the three agencies and matching funds  December 2017 Status:  DCNR and Pennvest have released grant funding for multi-functional or income-producing buffers. An initial \$3 million has been invested in this program. In addition, DCNR announced a separate statewide buffer initiative where they plan to invest another \$2.5 million over the next three years.  Growing Greener projects have been selected and announced. About \$13 million in projects are in the Chesapeake Bay drainage area.  The \$1 million in agricultural practices from the State Conservation Commission is allocated and mostly spent.  The Agricultural Plan Reimbursement Program was announced in October, 2017. Initial investment in this program was \$1.5 million to reimburse farmers for the cost of developing manure management, nutrient management or erosion and sediment control plans.
January 2018	Implement targeted watershed effort in the Chiques Creek watershed in Lancaster County.	DEP SRBC	This impaired watershed's geography and land use are amenable to successful BMP implementation that will provide quick results

		PSU Lancaster County CD Stakeholders	toward attainment status. This watershed also has an active, interested local group ready to take the lead on implementation of the initiative. Federal and state cost-share funds will be focused on implementation. Work in this watershed and other watersheds could be a model for future efforts.  December 2016 Status: Overview of project attached below:  http://www.srbc.net/programs/chiques/docs/chiquesinfosheet.pdf  December 2017 Status: Work continues to identify one pilot project within the basin. The pilot will focus on a small watershed where restoration of water quality standards is most likely to occur in a relatively short period of time. Sub-basins to be considered will be in the area surrounding Manheim.
	collaborative effort with stakeholders, a restoration	DEP SRBC PSU	Implementation will be targeted at select "priority" areas within the larger watershed to ensure local water quality improvements and eventual attainment of water quality standards.
		Lancaster County CD Stakeholders	Baseline monitoring will be conducted prior to implementation of plan and future monitoring data will be compared to baseline to assess success.

		Intra-Department and stakeholder coordination efforts aimed at providing		December 2016 Status: Penn State was awarded a ~\$500,000 Chesapeake Bay Stewardship Fund grant from the National
		resources for implementation		Fish and Wildlife Foundation (NFWF) in
		upon completion of the initial		2015 to facilitate a watershed partnership in
		analysis.		the Chiques Creek watershed.
				The project is meant to complement the alternative TMDL approach work that the PA Department of Environmental Protection and the Susquehanna River Basin Commission have been leading over the last year. By bringing together public and private entities, the Chiques Creek Re-Envisioned partnership hopes to increase outreach and engagement of landowners in the watershed and accelerate the adoption of land management practices to improve water quality, in support of existing and continued efforts in the watershed.
				http://www.srbc.net/programs/chiques/chiques .htm
				December 2017 Status: A draft Alternative Restoration Plan (ARP) has been completed by SRBC staff and will be shared with stakeholders by spring 2018. Also, by spring 2018, begin re-engagement of MS4 communities and point source dischargers to begin drafting ARP for point sources.
December 2016	Develop a list of priority		PDA	December 2016 Status: The PA Dept. of
	agricultural and stormwater		SCC	Agriculture (PDA) is sponsoring a NFWF
	BMPs with the greatest nutrient			grant, focused on development of

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reduction potential for the			conservation plans; livestock stream
Chesapeake Bay. PA will target			exclusion; plan implementation;
annual ag cost share funding to		DCIVIC	implementation of an innovative income-
these low cost, effective		PA Fish &	producing forested buffer component;
agricultural conservation			demonstration of a direct correlation between
practices that result in significant			BMPs and herd health; and water quality
nutrient reductions.			monitoring. The estimated numeric outputs
nutrent reductions.		Contor Daruncia	1 -
			are 39 Manure Management and 28 Ag E&S
			plans; 73,761 linear feet of exclusion fencing;
			50 off-stream watering systems; and 30
			crossings.
			December 2017 Status: Since the inception
			of PDA's NFWF grant project entitled, 'The
			Pennsylvania Adaptive Toolbox for
			Conservation Saturation', several key
			accomplishments have been initiated and/or
			completed. Project partners have 1) initiated
			an ongoing education and outreach program to
			farmers and interested residents in the project
			area; 2) identified 32 potential project sites
			and conducted 'on-site' assessments of
			resource management needs that would be
			developed under the objectives of the project;
			3) initiated planning activities for Ag
			E&S/conservation and manure management
			plans; and 4) established and begun baseline
			water quality monitoring and fisheries
			monitoring activities in the project area.
			The on-site assessments have resulted in:
			• 81% of the identified ag landowners in
			the project area with positive
			acceptance to participate in the project
			acceptance to participate in the project

			• 65% of the farms need either an Ag
			E&S/conservation plan, MMP or both.
			<ul> <li>Continued discussion is necessary with</li> </ul>
			· ·
			a small segment of the agricultural
			landowners hesitant to participate in
			the project. It is believed that, as the
			project progresses, those hesitant
			landowners may reconsider
			participating as they observe activities
			implementation on other farms in the
			project area.
			<ul> <li>Specific non-agency project partners</li> </ul>
			continue to engage in conversations
			with several landowners that are
			hesitant to participate in the project. A
			farmer/community meeting was held
			in December 2017 to further discuss
			project activities and outcomes with
			willing farmer participants and
			showcase the success of similar
			practices in other area communities.
			The development and delivery of Ag
			E&S/conservation plans and MMPs
			for the remainder of the project farms
			continues to move forward. The
			development and delivery of those
			plans will position participating
			landowners for progression to
			implementation activities for the next
			project objectives: livestock stream
			exclusion systems; conservation plan
			implementation for practices in
			addition to livestock stream exclusion;
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				and the introduction a new income- producing forested buffer component.
See list of deliverables for month-by-month target dates.	Increase the miles of livestock exclusion stream fencing being implemented annually within the Chesapeake Bay watershed under the DEP Streambank Fencing project.		PDA SCC DEP DCNR PA Fish & Boat Commission Other partners	December 2016 Status: PDA is sponsoring a NFWF grant in the Fishing Creek Watershed in Lancaster County that is focused on development of conservation plans; livestock stream exclusion; plan implementation; implementation of an innovative incomeproducing forested buffer component; demonstration of a direct correlation between BMPs and herd health; and water quality monitoring. The estimated numeric outputs are 39 Manure Management and 28 Ag E&S plans; 73,761 linear feet of exclusion fencing; 50 off-stream watering systems; and 30 crossings. One of the goals of this project is to achieve 100% livestock stream exclusion in this small watershed.  December 2017 Status: See above detailed description
		July 2016: Revise, where necessary, the DEP Streambank Fencing program to maximize impact and provide flexibility in program.	DEP SCC PDA DCNR	December 2016 Status: Through the Riparian Forest Buffer Advisory Committee put in place in 2016, a new income-producing, multi-functional forested buffer has been introduced. This increases flexibility for buffer implementation, whereby interested landowners would install at least a 15-foot wide native forest buffer as well as a secondary buffer averaging at least another 20 feet of native trees and shrubs.

	December 2017 Status: DCNR announced recipients for its Pilot Riparian Forest Buffer grant program in early 2017 and a second round of recipients as part of its regular Community Conservation Partnership Program in late 2017. These two grant announcements provided nearly \$1 million in funding to partners for riparian forest buffers. A portion of the grant recipients intend to establish multifunctional buffers with this funding.
	PennVest committed \$3 million in funding for riparian forest buffers over the next three years. The application period for the initial round of funding closed at the end of December showing strong demand for buffer funding.
	Penns Valley Conservation Association was recently awarded a \$65,000 grant from the Water Quality GIT to establish a demonstration and research multifunctional riparian forest buffer in Centre County, PA.
	Entrepreneurs such as Crow and Berry Land Management are emerging to help establish both buffers and markets for products from multifunctional buffers.
	DCNR received a \$750,000 grant from NFWF to establish traditional and multifunctional buffers in southcentral PA.

fold, the amount of staff time	PDA SCC	Through support from USDA, Farm Service Agency, DCNR has hired a Riparian Forest Buffer Coordinator and two watershed technicians to provide staffing towards the Commonwealth's Buffer Initiative.  DCNR recently announced a 2018 Buffer Summit designed to provide partners the latest and greatest information on riparian forest buffers.  Attainment of this deliverable is dependent on receipt of additional DEP staffing and
and funding directed to the DEP Streambank Fencing program within the Chesapeake Bay watershed. If funded, this would result in approximately 60 streambank fencing projects.	DEP DCNR PA Fish & Boat Commission	December 2016 Status: PDA is sponsoring a NFWF grant in the Fishing Creek Watershed in Lancaster County that is focused on development of conservation plans; livestock stream exclusion; plan implementation; implementation of an innovative incomeproducing forested buffer component; demonstration of a direct correlation between BMPs and herd health; and water quality monitoring. The estimated numeric outputs are 39 Manure Management and 28 Ag E&S plans; 73,761 linear feet of exclusion fencing; 50 off-stream watering systems; and 30 crossings. One of the goals of this project is to achieve 100% livestock stream exclusion in this small watershed. There are 39 farms in the Fishing Creek watershed.

	December 2017 Status: See above detailed description
Partner with other state agencies, statewide non-profits, county conservation districts and/or local watershed groups to quickly achieve on-the ground implementation of low cost and high impact BMPs.	PDA SCC With the Fish and Boat Commission, the Northcentral Pennsylvania Conservancy and the Conservation Districts in the DEP Northcentral Region to install stream restoration measures.  PA Fish & Boat Commission Other partners  December 2016 Status: PA DEP is partnering with PDA. PDA is sponsoring a NFWF grant in the Fishing Creek Watershed in Lancaster County that is focused on development of conservation plans; livestock stream exclusion; plan implementation; implementation of an innovative income-producing forested buffer component; demonstration of a direct correlation between BMPs and herd health; and water quality monitoring. The estimated numeric outputs are 39 Manure Management and 28 Ag E&S plans; 73,761 linear feet of exclusion fencing; 50 off-stream watering systems; and 30 crossings. One of the goals of this project is to achieve 100% livestock stream exclusion in this small watershed. There are 39 farms in the Fishing Creek watershed.  December 2017 Status: See above detailed description

Forestry	Forestry						
Target Date	Milestone (WIP page reference)*	Deliverable	Lead Agency	Comments/Status Updates			
Summer 2016	Create and fund new pilot riparian buffer program.		DCNR	In July 2016, DCNR launched a new pilot riparian buffer program to help meet buffer goals. The pilot generated 26 proposals seeking five times the available funding. The program requires a minimum 1:1 match and will award more than \$750,000 in DCNR funds, as well as continue through 2017 and 2018 at the same or higher funding levels.  December 2017 Status: The initial pilot program was successful and incorporated into DCNR's annual Community Conservation Partnership Program (C2P2).  The initial grants from the pilot round were awarded in January 2017, resulting in			
				\$550,000 going toward riparian buffers in the Chesapeake Bay watershed.  The 2017 C2P2 grants were announced in December 2017, with a total of \$400,000 going toward riparian buffers in the Chesapeake Bay Watershed. These two grant programs will result in approximately 250 acres of riparian forest buffers.  Additionally, PennVest agreed to provide \$3 million over three years to DCNR for riparian buffers. The initial round of applications were due to DCNR on December 29, 2017. Early results indicate that demand for this funding far outpaces the supply. DCNR plans to			

				continue these grant programs for the foreseeable future.
April 2016	Establish a PA Riparian Forest Buffer Advisory Committee	Compile a draft list of participants, develop objectives, and reachout to assess interest, then hold a meeting	DCNR	Goal of Committee will be to produce reports, recommendations, and partnerships from the Committee that work toward increasing the rate of installation of riparian forest buffers.  December 2016 Status: The committee has been formed and met three times in 2016: March 28, June 2, and October 27. Participation has grown to approximately 60 members, including agencies, non-profits, academia, and the agriculture industry. Enthusiasm is high and discussion topics have included innovative strategies, successful models, new research on RFB functionality, and use of technology. Additionally, the meetings have provided networking opportunities to strengthen existing and form new partnerships. The committee plans to continue meeting quarterly in 2017.  December 2017 Status: The Advisory Committee met twice in 2017, focusing on communications and the economics of riparian forest buffers. A third meeting was rescheduled to early 2018 to focus on Phase 3 WIP.
				The Advisory Committee was formalized through establishing a Leadership Team and incorporated into DCNR's NFWF grant. The

Point Sources: N	Number of Bay Facilities Who N	Tust Comply with Nutrient O	Cap Loads	Advisory Committee will assist with communications and messaging, reporting and tracking buffer installations, and training other partners.  Participation remains strong, and the committee plans to continue meeting quarterly in 2018.
• Significant	Sewage and Industrial Facilitie	es		
Target Date	Milestone (WIP page reference)*	Deliverable	Lead Agency	Comments/Status Updates
This sector has exceeded its WIP milestone goals.	Two (2) additional Significant Sewage facilities will begin compliance with their cap loads starting 10/1/2015.		DEP	December 2015 Status: Completed  182 Significant Municipal Facilities have compliance start dates prior to 10/1/2015.  Four additional facilities have begun their compliance with the cap load starting 10/1/2015.  December 2016 Status: 187 Significant Municipal Facilities have compliance start dates prior to 10/1/2016. Two additional facilities have begun their compliance with the cap load starting 10/1/2016.  December 2017 Status: All 189 significant Municipal Facilities have compliance date prior to 10/1/2017.

Two (2) additional Significant Industrial facilities will begin compliance with their cap loads starting 10/1/2015.	DEF	P 13 Significant Industrial facilities have begun compliance prior to 10/1/2015. <b>Four</b> additional facilities have begun their compliance with the cap load starting 10/1/2015.
		December 2016 Status:
		17 Significant Industrial facilities were in compliance prior to 10/1/2016. <b>Two</b> additional facilities have begun their compliance with the cap loads starting 10/1/2016. <b>One</b> additional facility will begin its compliance with the cap loads starting 10/1/2017.
		December 2017 Status: 22 significant Industrial facilities permits have been issued. 19 of them have compliance start date 10/1/2016 or prior. The other three have begun their compliance with the cap load beginning 10/1/2017.
12 Sewage and Industrial facilities are anticipated to begin compliance with cap loads starting 10/1/2014, and Four (4) Sewage and Industrial facilities are anticipated to begin compliance with cap loads starting 10/1/2015.	DEF	12 Sewage and Industrial facilities began compliance with cap loads on 10/1/2014 and additional <b>Eight</b> (8) Sewage and Industrial facilities began compliance with cap loads starting 10/1/2015.  December 2016 Status: Eight additional Sewage and Industrial facilities began compliance with cap loads on 10/1/2015 and additional Four (4) Sewage and Industrial facilities began compliance with cap loads starting 10/1/2016.
		20

		December 2017 Status: 189 significant sewage and 19 industrial facilities have begun their compliance with the cap loads prior to 10/1/2016. Three significant Industrial facilities have begun their compliance with the cap load starting on 10/1/2017.
Industrial Facilities: At this time, 16 of the 23 facilities have cap loads established in draft or final NPDES permits. An additional seven (7) facilities will have permits issued with cap loads prior to December 31, 2015, and cap loads will become effective no later than October 1, 2016.	DEP	At this time, 19 of the 23 facilities have cap loads established in their final NPDES permits. One draft permit with cap load has been issued and other three (3) facilities will have permits issued with cap loads prior to December 31, 2016, and cap loads will become effective no later than October 1, 2017.  December 2016 Status: At this time, 20 of the 23 facilities have cap loads established in their final NPDES permits. Two (2) draft permits with cap load has been issued and hopefully remaining one facility will have draft permit issued prior to October 1, 2017.  December 2017 Status: At this time, 22 of 23 significant industrial facilities have cap loads in their permit with compliance start date 10/1/2017 or prior.

Stormwater/MS	Stormwater/MS4-PAG 13 (PA General Permit 13)					
Target Date	Milestone (WIP page reference)*	Deliverable	Lead Agency	Comments/Status Updates		
See list of deliverables for month-by-month target dates.	Continue outreach and program development for Municipal Separate Storm Sewer System (MS4) permits to include the finalization of the PAG-13 General Permit to include percent reductions for nitrogen, phosphorus and sediment.	Improved DEP MS4 permit	DEP	December 2016 Status: Completed.  The PAG-13 General Permit for MS4s was reissued in June 2016. PAG-13 includes a requirement to develop a Pollutant Reduction Plan to reduce the existing loads of sediment, TP and TN to the Chesapeake Bay.		
		1/15/2016: Evaluate comments received on the draft permit and prepare comment response document	DEP	December 2016 Status: Completed.  The PAG-13 General Permit for MS4s was reissued in June 2016.		
		3/1/2016: Final draft General Permit revisions	DEP	December 2016 Status: Completed.  The PAG-13 General Permit for MS4s was reissued in June 2016.		
		4/1/2016: Publish General Permit	DEP	December 2016 Status: Completed.  The PAG-13 General Permit for MS4s was reissued in June 2016.		
		5/1/2016: Finalize draft Individual Permit template	DEP	December 2016 Status: Completed.  The individual permit template and application materials will be completed no later than January 2017.		

	5/1/2016: Issue instructions to each MS4	DEP	December 2016 Status: Completed.  A letter was issued to each MS4, including more than 100 new MS4s, in July 2016 to provide instructions for the next NOI/application submission.
	11/1/2016: Expand capabilities at DEP by training RO staff (MS4 and permit writer training)	DEP	December 2016 Status: Completed.  Public training on the new PAG-13 General Permit including Pollutant Reduction Plans and TMDL Plans was conducted from June — October 2016. DEP's Bureau of Clean Water is currently developing materials to train regional office staff on the review of NOIs, applications, Pollutant Reduction Plans and TMDL Plans.
	Ongoing: Review draft Pollutant Reduction Plans, Impaired Water Plans and TMDL Plans. Permittees are prepared to submit applications/NOIs	DEP (Regional offices)	December 2016 Status: Following the public training in the summer/fall of 2016, Bureau of Clean Water staff have participated in numerous working sessions with MS4s and their consultants to assist in the development of NOIs, applications and plans. Assistance continues to be provided to consulting firms and municipalities on PRP/TMDL Plan development and waivers.  April 2017 Status: EPA asked, in the <i>Interim Evaluation</i> , if draft PRPs/TMDL Plans have been developed and reviewed. No complete drafts have been submitted to date. DEP has however been helping numerous MS4s which have had questions that needed to be answered

				in order for the plans to be completed.  December 2017 Status: In August 2017, Central Office trained Regional Office staff on the review process for PRP/TMDL plans. Central Office providing additional review process training as needed in Regional Offices. Central Office staff continues to address questions from the Regional Offices and MS4 permittees.
		9/16/2017: Review and issue 2018 permits	DEP (Regional offices)	December 2016 Status:  Approximately 650 PAG-13 NOIs, applications and accompanying plans are expected on or before 9/16/2017; MS4s with existing individual permits will need to submit renewal applications no later than 180 days prior to permit expiration.  December 2017 Status: 828 GP NOIs were due on 9/16/2017. As of 12/1/2017, 770 have been recorded as received and are being processed. 517 PRPs have been submitted and are currently being reviewed. For outstanding NOIs/PRPs, NOVs have been issued or compliance assistance measures taken. IP applications will add to the workload as they are due and submitted.
See list of deliverables for month-by-month target dates.	Continue MS4 permit outreach and program development to include the development of additional handbooks, guidance	Improved statewide MS4 permitting capability		December 2016 Status:  DEP is in the process of updating and/or developing and posting to its MS4 website

materials, etc. as need periodic, at least annu workshops and training on program requirement the essential elements program. Supplement with webinars and we training as needed.	nal, ng events ents and s of the t these		numerous materials to assist MS4 applicants and permittees, including model MCM plans, an FAQ document, and training presentations.  December 2017 Status: DEP has updated its website, www.dep.pa.gov/MS4, to include numerous documents to assist MS4s with NPDES permit requirements, including an FAQ document, interactive map, and resources for developing PRPs and TMDL Plans.
	1/1/2016: Plan 11 external training workshops for 2016 (big-picture decisions on purpose, locations, methods and available funding)	DEP	December 2016 Status: Completed.  Over 1,000 municipal staff and consultants were trained by DEP through eight statewide training sessions during the summer/fall of 2016.
	4/1/2016: Develop specs, select sites and advertise workshops	DEP	December 2016 Status: Completed.  Eight training sessions were conducted from June – October 2016.
	5/30/2016: Develop agendas and training materials	DEP	December 2016 Status: Completed.  Eight training sessions were conducted from June – October 2016.
	5/30/2016: Develop model MCM #1, #2, #3 Plans and Develop technical guidance document for MCM #3	DEP Technical Contractor	December 2016 Status: DEP is working with a technical contractor to complete model MCM plans for MCMs 1 and 2.  April 2017 Status: EPA asked, in the <i>Interim Evaluation</i> , if Pennsylvania has developed

		technical guidance for MCM #3. The answer is no; limited available staff time has been focused on training and otherwise assisting MS4 with PRPs and TMDL Plans. An additional new priority is development of a training program to be delivered to the Regional Offices on how to review PRP/TMDL Plans. Improvements to DEP's MCM guidance materials will be pursued when time allows.  December 2017 Status: No update at this time.
5/30/2016: Prepare webinar for each MCM (using materials from the training; place on website)	DEP Technical Contractor	December 2016 Status: DEP is preparing narrated training presentations based on the 2016 public training for posting to its MS4 website.
		April 2017 Status: DEP staff time was not available to develop webinars in time for them to effectively be used by MS4s. In addition, guidance materials were revised which made some training material content incomplete. DEP has therefore refined the materials on the website and has made MS4s aware of those materials through email blasts and presentations at technical meetings (e.g. PSATS conference). A hard copy "reminder" letter of DEP website materials will be sent to all MS4s.  December 2017 Status: No update at this
		time.

	7/1/2017: Evaluate training effectiveness	DEP	December 2016 Status: Completed.  The majority of attendees felt the training was very helpful.
	Ongoing: Small event training (e.g. DEP MS4 Inspection Process)	DEP	December 2016 Status: The Bureau of Clean Water is preparing for regional training in 2017. There may also be another round of public training in 2017.
			December 2017 Status: DEP's Bureau of Clean Water provided statewide training to DEP regional permits staff in August 2017 that focused on the review of PRPs and TMDL Plans.
See list of deliverables for month-by-month target dates.	MS4 capability	DEP	These circuit riders will be part-time DEP employees who are subject matter experts involved in their local MS4 communities.  December 2016 Status: No progress made on "MS4 circuit riders".  December 2017 Status: The focus of the limited DEP staff resources was put on releasing the new permit and assisting MS4 communities with compliance with that permit and the submittal and review of the associated required Pollutant Reduction Plans. Therefore, when the Chesapeake Bay Regulatory Accountability Program Grant workplan was re-worked due to the large amount of unliquidated monies, it was decided not to create this program and to eliminate this initiative from the workplan. The funds for

		this program were re-allocated to other aspects of the workplan and the initiative discontinued before it ever got started. EPA approved that workplan.
3/15/2016: Develop position description	DEP	December 2016 Status: No progress made on "MS4 circuit riders".  December 2017 Status: The focus of the limited DEP staff resources was put on releasing the new permit and assisting MS4 communities with compliance with that permit and the submittal and review of the associated required Pollutant Reduction Plans. Therefore, when the Chesapeake Bay Regulatory Accountability Program Grant workplan was re-worked due to the large amount of unliquidated monies, it was decided not to create this program and to eliminate this initiative from the workplan. The funds for this program were re-allocated to other aspects of the workplan and the initiative discontinued
		before it ever got started. EPA approved that workplan.
3/15/2016: Management process and Standard Operating Procedures (SOPs) created for Circuit Riders (making assignments, technical accountability and money)	DEP	December 2016 Status: No progress made on "MS4 circuit riders".  December 2017 Status: The focus of the limited DEP staff resources was put on releasing the new permit and assisting MS4 communities with compliance with that permit and the submittal and review of the associated required Pollutant Reduction Plans. Therefore, when the Chesapeake Bay Regulatory

			Accountability Program Grant workplan was re-worked due to the large amount of unliquidated monies, it was decided not to create this program and to eliminate this initiative from the workplan. The funds for this program were re-allocated to other aspects of the workplan and the initiative discontinued before it ever got started. EPA approved that workplan.
	Ongoing: Seek and select applicants	DEP	December 2016 Status: No progress made on "MS4 circuit riders".
			December 2017 Status: The focus of the limited DEP staff resources was put on releasing the new permit and assisting MS4 communities with compliance with that permit and the submittal and review of the associated required Pollutant Reduction Plans. Therefore, when the Chesapeake Bay Regulatory Accountability Program Grant workplan was re-worked due to the large amount of unliquidated monies, it was decided not to create this program and to eliminate this initiative from the workplan. The funds for this program were re-allocated to other aspects of the workplan and the initiative discontinued before it ever got started. EPA approved that workplan.
	4/15/2016: Prepare materials and training for Circuit Riders		The focus of the limited DEP staff resources was put on releasing the new permit and assisting MS4 communities with compliance with that permit and the submittal and review of the associated required Pollutant Reduction

			Plans. Therefore, when the Chesapeake Bay Regulatory Accountability Program Grant workplan was re-worked due to the large amount of unliquidated monies, it was decided not to create this program and to eliminate this initiative from the workplan. The funds for this program were re-allocated to other aspects of the workplan and the initiative discontinued before it ever got started. EPA approved that workplan.
	Riders	DEP	December 2016 Status: No progress made on "MS4 circuit riders".  December 2017 Status: The focus of the limited DEP staff resources was put on releasing the new permit and assisting MS4 communities with compliance with that permit and the submittal and review of the associated required Pollutant Reduction Plans. Therefore, when the Chesapeake Bay Regulatory Accountability Program Grant workplan was re-worked due to the large amount of unliquidated monies, it was decided not to create this program and to eliminate this initiative from the workplan. The funds for this program were re-allocated to other aspects of the workplan and the initiative discontinued before it ever got started. EPA approved that workplan.
	7/15/2016: Circuit Riders helping MS4s. Goal of 5-10 MS4s per year per Circuit	DEP	December 2016 Status: No progress made on "MS4 circuit riders".  December 2017 Status: The focus of the

	Rider		limited DEP staff resources was put on releasing the new permit and assisting MS4 communities with compliance with that permit and the submittal and review of the associated required Pollutant Reduction Plans. Therefore, when the Chesapeake Bay Regulatory Accountability Program Grant workplan was re-worked due to the large amount of unliquidated monies, it was decided not to create this program and to eliminate this initiative from the workplan. The funds for this program were re-allocated to other aspects of the workplan and the initiative discontinued before it ever got started. EPA approved that workplan.
December 2016	Obtain authorization and funding to establish program.	DEP	December 2016 Status: The Bureau of Clean Water reorganized in November 2016. As a result, the Bureau now has an MS4 Section within the Division of NPDES Permitting. A Section Chief has been selected along with one new staff member.  December 2017 Status: The focus of the limited DEP staff resources was put on releasing the new permit and assisting MS4 communities with compliance with that permit and the submittal and review of the associated required Pollutant Reduction Plans. Therefore, when the Chesapeake Bay Regulatory Accountability Program Grant workplan was re-worked due to the large amount of unliquidated monies, it was decided not to create this program and to eliminate this

See list of deliverables for month-by-month target dates.	Installation of cost-effective Stormwater BMPs.  Goal is to treat approximately 80 acres of impervious area and another 158 acres of pervious area for a total of 238 acres treated.	Create Local Stormwater BMP Implementation Program Overview, Application, Application Instructions, Application Checklist, Rating Form, Payment Request Form	DEP	initiative from the workplan. The funds for this program were re-allocated to other aspects of the workplan and the initiative discontinued before it ever got started. EPA approved that workplan.  Will include basin retrofits, bioretention basins, porous pavement, rain gardens, tree plantings, wetlands and stream restoration projects.  Completed 1/2015  December 2016 Status:  A new round of funding (\$1.1 million) for Chesapeake Bay urban stormwater BMPs is scheduled to be announced soon, and applications will be accepted until March 2017.  December 2017 Status: Seventeen urban stormwater BMP projects were funded in the
				second round of grant funding (\$1.1 million). Grants were awarded by DEP in Spring 2017.
		Program approved	DEP	Completed January 2015
		Grant solicitation approved	DEP	Completed 8/1/2015
		Bulletin Notice & Website update	DEP	Completed 8/22/2015
		1/15/2016: Applications reviewed and rated	DEP	December 2016 Status: Completed February 2016
		3/1/2016: Grant	DEP	December 2016 Status:

		recommendations approved and announced		Completed July 2016
		5/1/2016: Contracts awarded	DEP	December 2016 Status: Begun September 2016 and is ongoing; completion expected March 2017.  December 2017 Status: Contracts have been
				awarded for two rounds of BMP project funding as of Spring 2017.
		5/1/2018: Management of work and grant administration	DEP	December 2016 Status: Ongoing  December 2017 Status: Ongoing
Stormwater/Ch	apter 102			
Toward D. A.	NAME A CITATION	I		
Target Date	Milestone (WIP page reference)*	Deliverable	Lead Agency	Comments/Status Updates

12/2017	Revise Stormwater BMP Manual: the Stormwater BMP Manual needs to be updated. Contractor assistance is necessary.	2/2016: Funding Request from CWF  3/2016: Out for Bid  12/2016: First Draft  2/2017: Public Comment  12/2017: Final Draft	DEP	Funding mechanism will need to be identified to hire contractor to assist with manual revision.  December 2016 Status: The Bureau of Clean Water is seeking to contract with Villanova University for technical assistance in updating the BMP Manual.  December 2017 Status: DEP has contracted with Villanova University for revisions to the Stormwater BMP Manual. Completion of a revised Stormwater BMP Manual is expected in 2019. While revisions to this manual are delayed, it should be recognized the existing manual is still being utilized very effectively to achieve pollutant reductions.
Trading				
Target	Milestone (WIP page	Deliverable	Lead	Comments/Status Updates
Date	reference)*		Agency	
1/1/2016 through 12/31/2016	By compliance year, identify the pollutant reduction activities that generated certified, verified and registered credits and the number credits associated with each activity that are consistent with the expectations of the TMDL. (WIP Page 49)		DEP	December 2016 Status: For the 2016 Compliance Year, approximately 602,487 N and 44,427 P Credits were traded or Registered. Of the credits registered, 489,269 N and 37,244 P Credits came from wastewater treatment plants, 34,801 N Credits originated from ag BMP's, 58,125 N and 7,183 P came from the export of poultry litter out of the watershed and 20,292 Credits came from the gasification of poultry litter. A total of 591,243 N Credits and 43,240 Credits were verified. Some of the credits were sold several times or registered twice leading to slightly more credits

			registered.
			December 2017 Status: For the 2017 Compliance Year, 567,123 N and 43,121 P Credits were verified (available for trade). A total of 272,399 N Credits and 35,143 P Credits were registered (traded). Of the credits registered, 251,989 N and 32,174 P Credits came from wastewater treatment plants; 3,873 N Credits originated from ag BMP's; 114 N and 2,969 P came from the export of poultry litter out of the watershed; and 16,423 N Credits came from the gasification of poultry litter. 3,178 P credits were brokered (bought and resold, so registered twice).
1/1/2016 through 12/31/2016	Draft revisions to the Nutrient Trading Program regulations, Chapter 96.8.	DEP	December 2016 Status: Due to staff changes, this milestone will be re-visited in 2017.  December 2017 Status: Phase 3 WIP currently in development. Regulation revisions on hold at least until Phase 3 WIP is finalized.
1/1/2016 through 12/31/2016	Develop a credit calculation tool(s) for the generation of nonpoint source credits that is consistent with the Chesapeake Bay TMDL and the revised definitions for point source and nonpoint source baseline.	DEP EPA	December 2016 Status: Development of this tool is on hold pending discussions between NRCS and EPA.  December 2017 Status: DEP is working to tailor the Nutrient Trading Tool (NTT) currently utilized by some other Bay states to meet the state's needs utilizing EPA grant funding.

Regulations finalized and tool in place.		DEP	December 2016 Status: On hold pending discussions between NRCS and EPA.  December 2017 Status: Phase 3 WIP currently in development. Regulation revisions on hold at least until Phase 3 WIP is finalized.  DEP evaluating the possibility of implementing use of the Nutrient Trading Tool (NTT) currently utilized by some other Bay states.
eporting			
Milestone (WIP page	Deliverable	Lead	Comments/Status Updates
reference)*		Agency	
Management Framework to be an open architecture type of system.	applications that have a common theme, BMP data, that will serve as a repository for BMP information that must be reported to the Chesapeake Bay program, in addition to providing management tools for other activities.	DEP	December 2016 Status: In January 2016, DEP contracted with WorldView Solutions to develop two products, a "data warehouse" and a cloud-based application of the PracticeKeeper software currently utilized by several organizations in Pennsylvania.  The data warehouse was completed in 2016 and was utilized to submit BMP data to EPA in December 2016.  PracticeKeeper software was developed for the web. The beta version of the product will be completed in 2017. Initial User Acceptance Testing is projected for March 2017.
	eporting  Milestone (WIP page reference)*  Design and build a BMP Data Management Framework to be an open architecture type of	eporting  Milestone (WIP page reference)*  Design and build a BMP Data Management Framework to be an open architecture type of system.  A group of software applications that have a common theme, BMP data, that will serve as a repository for BMP information that must be reported to the Chesapeake Bay program, in addition to providing management tools for other	in place.  Milestone (WIP page reference)*  Design and build a BMP Data Management Framework to be an open architecture type of system.  Design and build a BMP Data Management framework to be an open architecture type of system.  Deliverable Lead Agency  DEP  A group of software applications that have a common theme, BMP data, that will serve as a repository for BMP information that must be reported to the Chesapeake Bay program, in addition to providing management tools for other

			Product Version 1.1 development projected in 2017-18 for additional modules/enhancements, which MAY include ag inspection tracking and reporting to ICIS to meet eReporting Rule requirements.  December 2017 Status: BMP Warehouse was used for 2017 Progress reporting (phase 5). An updated application for Phase 6 BMP reporting is currently being developed for a 2018 Progress reporting rollout.  PracticeKeeper software was developed for the web. The product was completed in 2017. Initial training and User Acceptance Testing began in February 2017 and product began rollout in July 2017. Training and system development/utilization is ongoing.
	9/1/2016: Identify software package for use by all CDs to capture BMP data installed by farmers without cost share dollars. Provide software and training to all CDs.	DEP	December 2016 Status: In January 2016, DEP contracted with WorldView Solutions to develop two products, a "data warehouse" and a cloud-based application of the PracticeKeeper software currently utilized by several organizations in Pennsylvania.  PracticeKeeper software was developed for the web. The beta version of the product will be completed in 2017. Initial User Acceptance Testing is projected for March 2017. Initial product rollout for July 2017.

			Product Version 1.1 development projected in 2017-18 for additional modules/enhancements, which MAY include ag inspection tracking and reporting to ICIS to meet eReporting Rule requirements.  December 2017 Status: PracticeKeeper software was developed for the web. The product was completed in 2017. Initial training and User Acceptance Testing began in February 2017 and product began rollout in July 2017. Training and system development/utilization is ongoing.
	11/1/2016: Move the Chapter 102 E&S Control (102) permit data into centralized BMP system for reporting to EPA	DEP	December 2016 Status: In January 2016, DEP contracted with WorldView Solutions to develop two products, a "data warehouse" and a cloud-based application of the PracticeKeeper software currently utilized by several organizations in Pennsylvania.  PracticeKeeper software was developed for the web. The beta version of the product will be completed in 2017. Initial User Acceptance Testing is projected for March 2017. Initial product rollout for July 2017.  Product Version 1.1 development projected in 2017-18 for additional modules/enhancements, which MAY include ag inspection tracking and reporting to ICIS to meet eReporting Rule requirements.

		December 2017 Status: At this time, there is no module to address reporting to ICIS to meet eReporting Rule requirements. PracticeKeeper has not been updated to include Chapter 102 permit or BMP data. A future version of PracticeKeeper may include this functionality. Until then, DEP's Bureau of Clean Water will continue maintaining its database of Chapter 102 BMPs, which is used to report to the Bay model.
11/1/2016: Download voluntary BMP data to centralized BMP system to report to EPA.  All BMP data being reported by CDs will be entered into selected software and middleware to get info to EPA developed	DEP	December 2016 Status: In January 2016, DEP contracted with WorldView Solutions to develop two products, a "data warehouse" and a cloud-based application of the PracticeKeeper software currently utilized by several organizations in Pennsylvania.  The data warehouse was completed in 2016 and was utilized to submit BMP data to EPA in December 2016.  December 2017 Status: PracticeKeeper software was developed for the web. The product was completed in 2017. Initial training and User Acceptance Testing began in February 2017 and product began rollout in July 2017. Training and system development/utilization is ongoing with Conservation District reporting to be conducted in 2018-2019 timeframe.

	9/1/2017: Track grant funding spent on BMPs	DEP	Develop a user interface for the tracking of grant money and tying it to BMP central.  December 2016 Status: A component of PracticeKeeper data warehouse that will be developed in 2017.  December 2017 Status: A component of PracticeKeeper data warehouse will not be developed in 2017.
	9/1/2017: Develop interface to be able to mine BMP data for other uses	DEP	Develop a user interface to get data on BMPS to other applications (mapshed, 303(d) revisioning, grant fundingetc)  December 2016 Status: A component of PracticeKeeper data warehouse that will be developed in 2017.  December 2017 Status: A component of PracticeKeeper data warehouse will not be developed in 2017.
	1/15/2017: Develop an MS4 annual report tool that will be used by the permittee to submit annual reports to DEP	DEP	December 2016 Status: Penn State has substantially completed the MS4 annual reporting system and we are in the process of identifying MS4s to beta test the system. We expect launching the system for voluntary use later in 2017. The system is based on the 2013 version of the MS4 annual report and will need to be eventually updated for the 2018 version of the annual report, when completed. Our objective is to make the system mandatory for annual reports submitted on or after 9/30/18, which is the first annual report due under the

			2018 PAG-13 General Permit.  December 2017 Status: Penn State is working on incorporating the 2018 version of the annual report into the MS4 annual reporting system. The system will be accessible through www.pacleanwaterreporting.org. User Manuals are under development. DEP is anticipating a go-live date in summer 2018.		
Federal Facilitie	es ·				
Target Date	Milestone (WIP page reference)*	Deliverable	Lead Agency	Comments/Status Updates	
November 2016	Enter Federal Facility BMP data into NEIEN for 2016 Progress Run	BMP Implementation and Reporting	СВР	Data is provided from Federal Facilities Action Team and passed-through DEP.  December 2016 Status: Federal facility BMP data for 2016 was uploaded through the NEIEN node on December 16, 2016.  December 2017 Status: Federal facility 2017 BMP data was entered into BMP Warehouse and passed through NEIEN to EPA.	
November 2017	Enter Federal Facility BMP data into NEIEN for 2017 Progress Run	BMP Implementation and Reporting	СВР	Data is provided from Federal Facilities Action Team and passed-through DEP.  December 2016 Status: 2017 Uploads are scheduled for November 2017 once data are received from federal partners for the year ending June 30, 2017.	

				December 2017 Status: Federal facility 2017 BMP data was entered into BMP Warehouse and passed through NEIEN to EPA.	
Other/Category	y		·		
<b>Target Date</b>	Milestone (WIP page reference)*	Deliverable	Lead Agency	Comments/Status Updates	
December 2016	Update wetlands mapping for CBWM 6.0 calibration	BMP Implementation and Reporting	DEP	Contract coordination with EPA and Chesapeake Conservancy is underway for the development and implementation of updated wetlands mapping data. Expect data to be included in the Phase 6 Bay model by September 2016, and final report by the contractor by December 2016.  December 2016 Status: EPA/Chesapeake Conservancy contract to UVM and USC was delayed, however wetland data provided for Phase 6. As a result of the delay, the final report is being drafted but not completed at this time.  December 2017 Status: The PA Wetland Mapping was completed for the Chesapeake Bay watershed and the deliverables provided to Chesapeake Bay program.  DEP has not received a copy of the deliverables that includes the metadata, or	

				knowledge that the data is being posted on Pennsylvania Spatial Data Access (PASDA).
December 2017	Increase Legacy Sediment and Aquatic Ecosystem Restoration (LSAER) Implementation and Tracking. Double the rate of implementation from approximately two projects per year to four projects per year, equaling a total of eight implemented projects by December 2017.	BMP Implementation and Reporting	DEP	Identify more opportunities for LSAER implementation. Include LSAER BMP as a stand-alone practice by working through the workgroup and expert panel protocols.  December 2016 Status: There were no projects implemented during 2016. In 2017, we anticipate three projects being implemented in the Chesapeake Bay watershed portion of Pennsylvania. We are awaiting movement on the STAC workshop for the LSR-AER BMP in order to identify protocols and definition as a stand-alone practice.  December 2017 Status: Eight projects completed for approximately 40 acres of wetlands restored, over 28,000 linear feet of stream and floodway, and approximately 28 acres of buffer area established.

Other/Category, cont.					
Target Date	Milestone (WIP page reference)*	Deliverable	Lead Agency	Comments/Status Updates	
Spring 2016	Document, through business case development, the additional funding needed for staffing increases and cost-share programs necessary to make this plan implementable. This includes working with the Office of the Budget and the General Assembly to achieve the needed results.		DEP	This milestone was completed with the finalization of the Reboot Strategy.  December 2016 Status: Completed.	
August 2016	Request the General Assembly and the Governor's Budget Office restore funding for the statutory requirements of the Pennsylvania Storm Water Management of 1978 (Act 167) and additional staff necessary for DEP to implement provisions of the act.		DEP	This milestone was completed with the submittal of the Reboot Strategy.  December 2016 Status: Completed.	

Deliverable	Lead Agency	Comments/Status Updates
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Strategy	DEP	December 2016 Status: This strategy is in draft form and will be submitted for review and approval to the steering committee, once the steering committee is convened. A copy of the draft strategy will also be shared with EPA once finalized.  December 2017 Status: A "Game Plan for Success" was finalized and approved by the Phase 3 WIP Steering Committee in May 2017. Methodology for the Development of the Phase 3 WIP Guidelines have also been developed and reviewed by the Steering Committee. Finally, an early Communications Strategy was approved by the Steering Committee in May 2017. This is being updated and expanded to strengthen local engagement and the implementation of local planning goals at the county level. This will be submitted to the Steering Committee for their review at either the January or February 2018 meeting. All meeting notices and work
	Strategy	Strategy DEP

		products of the Steering Committee can be found on the Phase 3 WIP webpage at: www.dep.pa.gov/chesapeakebay/
		phase3

<sup>\*</sup> As part of the adaptive management process for achieving water quality goals, jurisdictions may submit programmatic milestones that modify, are in place of, or are in addition to milestones listed in their Phase I WIPs so long as the jurisdiction can demonstrate that they will be as effective toward meeting water quality goals.