

January 1, 2016 – December 31, 2017 Jurisdiction Programmatic Two-Year Milestones

Agriculture				
Target Date	Milestone (WIP page reference)*	Deliverable	Lead Agency	Comments/Status Updates
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	<p>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.</p> <p>December 2016 Status:</p> <p>In Fall, 2016, DEP and Conservation District staff have commenced the ag inspections. The goal is to 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.</p>
		<p>January-February 2016:</p> <p>Public release of the strategy across many forums</p>	<p>DEP</p> <p>PDA</p> <p>State Conservation Commission (SCC)</p>	<p>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.</p> <p>December 2016 Status:</p> <p>The new strategy was communicated via multiple press releases and webinars</p>

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				<p>beginning in early 2016. The press releases were printed in the local newspapers and the Bay Journal.</p> <p>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.</p>
		<p>July 2016: CD and DEP Inspection & Compliance Effort. Public announcement of beginning of inspections.</p>	<p>DEP</p>	<p>CDs and DEP staff begin to conduct inspections to ascertain compliance with regulatory planning requirements.</p> <p>December 2016 Status:</p> <p>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.</p> <p>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.</p>

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				<p>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.</p> <p>As of December 1, 2016, DEP regions have conducted 130 ag inspections under this effort. In addition, Lancaster County Conservation District has agreed to provide their reports monthly, given the intense focus on the status of Lancaster County. They have conducted 77 initial inspections.</p>
		<p>Begin July 2016, then ongoing: Expand Plan Development Capacity.</p>	<p>PDA SCC DEP</p>	<p>Assist PDA, SCC and private sector with a cooperative project to obtain available 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.</p> <p>Review with PA NRCS options for better targeting existing funding and building capacity to help meet producers’ demand for technical assistance in developing and implementing the Manure Management Plans and Ag E&S Control Plans.</p> <p>December 2016 Status:</p> <p>PA in the Balance conference in November</p>

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				<p>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.</p>
		<p>July 1, 2016: Inspection & Compliance Effort. DEP, in coordination with CDs, will use targeted approach (using regional office Waterways and Wetlands staff)</p>	<p>DEP</p>	<p>DEP, in coordination with CDs, will conduct inspections of 1,100 farms in its southcentral and northcentral regions in the first year.</p> <p>December 2016 Status:</p> <p>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.</p> <p>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.</p> <p>Preliminary reports from our regions are being</p>

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				<p>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.</p> <p>As of December 1, 2016, DEP regions have conducted 130 ag inspections under this effort. In addition, Lancaster County Conservation District has agreed to provide their reports monthly, given the intense focus on the status of Lancaster County. They reported to have conducted 77 initial ag inspections so far.</p>
		<p>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.</p>	<p>CDs</p>	<p>CDs, in coordination with DEP, will conduct 2,200 inspections per year.</p> <p>Completion of inspections in all counties in the Bay Watershed would take ten years.</p> <p>December 2016 Status:</p> <p>Most of the CDs (29) have entered into agreements.</p> <p>Reporting of inspections will not occur until January 2017, per inspection SOP.</p>

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<p>See list of deliverables for month-by-month target dates.</p>	<p>Enhanced DEP Compliance, Enforcement, and Monitoring Strategy</p>	<p>Current estimate of 35-40% compliance rate for non-CAFO agricultural operations; 95% compliance for non-CAFO agricultural operations within 10 years.</p>	<p>DEP CDs</p>	<p>December 2016 Status:</p> <p>DEP staff completed six training sessions for the Chesapeake Bay Initial Ag Inspection program. Two session for DEP staff and four sessions for conservation district staff that will be conducting these initial inspections.</p> <p>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.</p> <p>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 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.</p> <p>As of December 1, 2016, DEP regions have conducted 130 ag inspections under this</p>
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				<p>effort. In addition, Lancaster County Conservation District has agreed to their reports monthly, given the intense focus on the status of Lancaster County, and they reported to have conducted 77 initial ag inspections.</p>
		<p>July 2016: Revise DEP Agricultural Compliance, Enforcement, and Inspection Standard Operating Procedures (SOP) for Non-CAFO farms.</p>	<p>DEP</p>	<p>December 2016 Status:</p> <p><i>Compliance, Enforcement, and Inspection SOP for Non-CAFO Farms</i> (BCW-INSP-019) was reviewed/revised and continues to be integrated in the Bureau of Clean Water operations.</p>
		<p>July 2016: Improve/revise DEP program guidance and data management systems to implement increased compliance and inspection program.</p>	<p>DEP</p>	<p>December 2016 Status:</p> <p>Initial Ag Inspection SOP developed to support initial ag inspection effort outlined in “reboot” strategy. Drafts developed with Conservation District review/input and on-farm testing. Final SOP completed May 2016.</p> <p>http://files.dep.state.pa.us/Water/ChesapeakeBayOffice/Final SOP Chesapeake Bay Agricultural Inspection Program.pdf</p> <p><i>Compliance, Enforcement, and Inspection SOP for Non-CAFO Farms</i> (BCW-INSP-019) was reviewed/revised and continues to be integrated in the Bureau of Clean Water operations.</p>

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Agriculture, cont.				
Target Date	Milestone (WIP page reference)*	Deliverable	Lead Agency	Comments/Status Updates
		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	<p>December 2016 Status:</p> <p>Developed new ag inspection form to be used with the Chesapeake Bay initial ag inspections in May 2016. (3800-FM-BCW0524).</p> <p>http://files.dep.state.pa.us/Water/ChesapeakeBayOffice/Final Initial Inspection Report.pdf</p> <p>Continued to utilize <i>Agricultural Operation Inspection Report</i> form for DEP 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)</p>
		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	<p>December 2016 Status:</p> <p>Completed. Brochures prepared by Ag Ombudsman Program and distributed to conservation districts and others.</p>

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<p>See list of deliverables for month-by-month target dates.</p>	<p>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.</p>	<p>Collection of data on Manure Management Plans and other specific BMPs</p>	<p>Penn State PDA DEP PA Farm Bureau PACD</p>	<p>Farmers/ag operations able to self-report voluntary practices implemented without state or federal funding.</p> <p>December 2016 Status:</p> <p>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.</p>
		<p>April 2016: Create and promote Penn State’s survey collection mechanism.</p>	<p>Penn State PDA DEP PA Farm Bureau PACD</p>	<p>December 2016 Status:</p> <p>Completed.</p>
		<p>January 2017: Verify 10% of self-reported BMP data to meet requirements of Chesapeake Bay Program for input into the Bay Watershed Model</p>	<p>Penn State</p>	<p>December 2016 Status:</p> <p>Completed. 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</p>

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			<p>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.</p> <p>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.</p> <p>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</p>
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				<p>verification visit.</p> <p>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.</p> <p>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.</p>
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	<p>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.</p> <p>December 2016 Status:</p> <p>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.</p>

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		<p>Ongoing: USDA-NRCS remote sensing pilot</p> <p>Data due to DEP from NRCS by February 2016</p> <p>Data to be reviewed by July 2016</p>	USDA-NRCS	<p>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.</p> <p>December 2016 Status:</p> <p>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.</p>
2016	<p>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.</p>	<p>Reallocate additional \$1,000,000 in state-provided water quality funding to Chesapeake Bay watershed work.</p>	DEP	<p>December 2016 Status:</p> <p>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:</p> <ul style="list-style-type: none"> · \$2.5 million for additional riparian forest buffer funding (DCNR) · \$4 million to implement high priority agricultural conservation practices (DEP/PDA)

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				<ul style="list-style-type: none"> · \$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
January 2018	Implement targeted watershed effort in the Chiques Creek watershed in Lancaster County.		DEP SRBC PSU Lancaster County CD Stakeholders	<p>This impaired watershed’s geography and land use are amenable to successful BMP implementation that will provide quick results 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.</p> <p>December 2016 Status: Overview of project attached below: http://www.srbc.net/programs/chiques/docs/chiquesinfosheet.pdf</p>

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		<p>Develop, through a collaborative effort with stakeholders, a restoration plan that includes pollutant reductions in all necessary sectors.</p> <p>This water quality analysis and watershed restoration plan will be suitable to replace a TMDL.</p> <p>Intra-Department and stakeholder coordination efforts aimed at providing resources for implementation upon completion of the initial analysis.</p>	<p>DEP SRBC PSU Lancaster County CD Stakeholders</p>	<p>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.</p> <p>Baseline monitoring will be conducted prior to implementation of plan and future monitoring data will be compared to baseline to assess success.</p> <p>December 2016 Status:</p> <p>Penn State was awarded a ~\$500,000 Chesapeake Bay Stewardship Fund grant from the National Fish and Wildlife Foundation (NFWF) in 2015 to facilitate a watershed partnership in the Chiques Creek watershed.</p> <p>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.</p>
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				http://www.srbc.net/programs/chiques/chiques.htm
December 2016	Develop a list of priority agricultural and stormwater BMPs with the greatest nutrient reduction potential for the Chesapeake Bay. PA will target annual ag cost share funding to these low cost, effective agricultural conservation practices that result in significant nutrient reductions.		DEP Other partners	December 2016 Status: PA Dept. of Agriculture (PDA) is sponsoring a NFWF grant, 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.
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.		DEP SCC PDA DCNR	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 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;

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				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.
		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.
		July 2017: Increase, by ten-fold, the amount of staff time 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 SCC PDA DCNR	Attainment of this deliverable is dependent on receipt of additional DEP staffing and funding. 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 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

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			<p>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.</p>
	<p>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.</p>		<p>One such example is the existing partnership with the Fish and Boat Commission, the Northcentral Pennsylvania Conservancy and the Conservation Districts in the DEP Northcentral Region to install stream restoration measures.</p> <p>December 2016 Status:</p> <p>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.</p>

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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.
April 2016	Establish a PA Riparian Forest Buffer Advisory Committee	Compile a draft list of participants, develop objectives, and reach-out to assess interest, then hold a meeting	DCNR	<p>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.</p> <p>December 2016 Status:</p> <p>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.</p>

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Point Sources: Number of Bay Facilities Who Must Comply with Nutrient Cap Loads				
• Significant Sewage and Industrial Facilities				
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.
Point Sources: Number of Bay Facilities Who Must Comply with Nutrient Cap Loads				
• Significant Sewage and Industrial Facilities				
Target Date	Milestone (WIP page reference)*	Deliverable	Lead Agency	Comments/Status Updates
	Two (2) additional Significant Industrial facilities will begin compliance with their cap loads starting 10/1/2015.		DEP	13 Significant Industrial facilities have begun compliance prior to 10/1/2015. Four 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. Two additional facilities have begun their compliance with the cap loads starting 10/1/2016. One additional facility will

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				begin its compliance with the cap loads starting 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.		DEP	12 Sewage and Industrial facilities began compliance with cap loads on 10/1/2014 and additional Eight (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.
	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.

Submitted to EPA: 1/17/2017

**Jurisdiction Restore Clean Water Action Items
PA 2016-2017 Programmatic Milestones**

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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: 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: The PAG-13 General Permit for MS4s was reissued in June 2016.
		3/1/2016: Final draft General Permit revisions	DEP	December 2016 Status: The PAG-13 General Permit for MS4s was reissued in June 2016.
		4/1/2016: Publish General Permit	DEP	December 2016 Status: The PAG-13 General Permit for MS4s was reissued in June 2016.
		5/1/2016: Finalize draft Individual Permit template	DEP	December 2016 Status: 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: A letter was issued to each MS4, including more than 100 new MS4s, in July 2016 to

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				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: 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.
Stormwater/MS4-PAG 13 (PA General Permit 13), cont.				
Target Date	Milestone (WIP page reference)*	Deliverable	Lead Agency	Comments/Status Updates
		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.
		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

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				permit expiration.
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 materials, etc. as needed and periodic, at least annual, workshops and training events on program requirements and the essential elements of the program. Supplement these with webinars and web-based training as needed.	Improved statewide MS4 permitting capability		December 2016 Status: DEP is in the process of updating and/or developing and posting to its MS4 website numerous materials to assist MS4 applicants and permittees, including model MCM plans, an FAQ document, and training presentations.
		1/1/2016: Plan 11 external training workshops for 2016 (big-picture decisions on purpose, locations, methods and available funding)	DEP	December 2016 Status: 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: This was completed and eight training sessions were conducted from June – October 2016.
		5/30/2016: Develop agendas and training materials	DEP	December 2016 Status: This was completed and 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.

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**Jurisdiction Restore Clean Water Action Items
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		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.
		7/1/2017: Evaluate training effectiveness	DEP	December 2016 Status: This has been 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 <u>may</u> also be another round of public training in 2017.
Stormwater/MS4-PAG 13 (PA General Permit 13), cont.				
Target Date	Milestone (WIP page reference)*	Deliverable	Lead Agency	Comments/Status Updates
See list of deliverables for month-by-month target dates.	Continue MS4 permit outreach and program development to include the implementation of a Circuit Rider Program to provide one-on-one technical assistance to municipalities in the development and implementation of a program to address the minimum control measures for an MS4 permit.	Improved individual local 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”.
		3/15/2016: Develop position description	DEP	December 2016 Status: No progress made on “MS4 circuit riders”.

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		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”.
		Ongoing: Seek and select applicants	DEP	December 2016 Status: No progress made on “MS4 circuit riders”.
		4/15/2016: Prepare materials and training for Circuit Riders	DEP	December 2016 Status: No progress made on “MS4 circuit riders”.
		6/15/2016: Train Circuit Riders	DEP	December 2016 Status: No progress made on “MS4 circuit riders”.
		7/15/2016: Circuit Riders helping MS4s. Goal of 5-10 MS4s per year per Circuit Rider	DEP	December 2016 Status: No progress made on “MS4 circuit riders”.
December 2016	Continue MS4 outreach and program development to include financial assistance grant programs to: (1) evaluate the feasibility of creating a stormwater authority and/or the creation of a framework for assessing and collecting fees for the management of stormwater; and (2) develop Chesapeake	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.

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	Bay Pollutant Reduction Plans, Impaired Waters Plans and TMDL Plans.			
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	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.
		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 recommendations approved and announced	DEP	December 2016 Status: Completed July 2016
		5/1/2016: Contracts awarded	DEP	December 2016 Status: Begun September 2016 and is ongoing;

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				completion expected March 2017.
		5/1/2018: Management of work and grant administration	DEP	December 2016 Status: Ongoing
Stormwater/Chapter 102				
Target Date	Milestone (WIP page reference)*	Deliverable	Lead Agency	Comments/Status Updates
12/2017	Reissue PAG-02 NPDES Permit: Scheduled to expire December, 2017. Revise and reissue the permit by or before date of expiration.	10/2016: Small Project Permit 12/2016: Draft sent to EPA 3/2017: Public Comment 12/2017: Final Permit	DEP	December 2016 Status: The Bureau of Clean Water reorganized in November 2016. As a result, the Chapter 102 NPDES construction stormwater program was moved to the Bureau of Clean Water, under the Division of NPDES Permitting. A priority for 2017 is reissuance of PAG-02; work is just getting underway.
Stormwater/Chapter 102, cont.				
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.

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Trading				
Target Date	Milestone (WIP page reference)*	Deliverable	Lead Agency	Comments/Status Updates
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.
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.
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.

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10/1/2017	Regulations finalized and tool in place.		DEP	December 2016 Status: On hold pending discussions between NRCS and EPA.
Tracking and Reporting				
Target Date	Milestone (WIP page reference)*	Deliverable	Lead Agency	Comments/Status Updates
See list of deliverables for month-by-month target dates.	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 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. 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.

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		<p>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.</p>	<p>DEP</p>	<p>December 2016 Status:</p> <p>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.</p> <p>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.</p> <p>Initial product rollout for July 2017.</p> <p>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.</p>
		<p>11/1/2016: Move the Chapter 102 E&S Control (102) permit data into centralized BMP system for reporting to EPA</p>	<p>DEP</p>	<p>December 2016 Status:</p> <p>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.</p> <p>PracticeKeeper software was developed for the web. The beta version of the product will be</p>

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				<p>completed in 2017. Initial User Acceptance Testing is projected for March 2017.</p> <p>Initial product rollout for July 2017.</p> <p>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.</p>
		<p>11/1/2016: Download voluntary BMP data to centralized BMP system to report to EPA.</p> <p>All BMP data being reported by CDs will be entered into selected software and middleware to get info to EPA developed</p>	DEP	<p>December 2016 Status:</p> <p>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.</p> <p>The data warehouse was completed in 2016 and was utilized to submit BMP data to EPA in December 2016</p>
		<p>9/1/2017: Track grant funding spent on BMPs</p>	DEP	<p>Develop a user interface for the tracking of grant money and tying it to BMP central.</p> <p>December 2016 Status:</p> <p>A component of PracticeKeeper data warehouse that will be developed in 2017.</p>

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		<p>9/1/2017: Develop interface to be able to mine BMP data for other uses</p>	<p>DEP</p>	<p>Develop a user interface to get data on BMPS to other applications (mapshed, 303(d) revisioning, grant funding...etc)</p> <p>December 2016 Status:</p> <p>A component of PracticeKeeper data warehouse that will be developed in 2017.</p>
		<p>1/15/2017: Develop an MS4 annual report tool that will be used by the permittee to submit annual reports to DEP</p>	<p>DEP</p>	<p>December 2016 Status:</p> <p>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.</p>

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Federal Facilities				
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	CBP	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.
November 2017	Enter Federal Facility BMP data into NEIEN for 2017 Progress Run	BMP Implementation and Reporting	CBP	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
Other/Category				
Target Date	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

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				<p>September 2016, and final report by the contractor by December 2016.</p> <p>December 2016 Status:</p> <p>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.</p>
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	<p>Identify more opportunities for LSAER implementation. Include LSAER BMP as a stand-alone practice by working through the workgroup and expert panel protocols.</p> <p>December 2016 Status:</p> <p>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.</p>

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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.

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Other/Category, cont.				
Target Date	Milestone (WIP page reference)*	Deliverable	Lead Agency	Comments/Status Updates
January 2017	<p>Develop a strategy for the development of the Phase 3 WIP that takes into account EPA defined expectations and builds upon the principles defined in the Reboot:</p> <ol style="list-style-type: none"> 1. Achieve water quality improvement and protection through an effective combination of inspection, compliance and enforcement. 2. Focus on local water quality improvement through: <ol style="list-style-type: none"> a. Effective targeting and prioritization of available resources b. Data collection, monitoring and continuous analysis 3. Document progress and performance through effective data collection and analysis and practice verification. 4. Look for innovative finance strategies to maximize available public and private sector funding. 5. Identify strategic legislative, programmatic and regulatory changes that need to be implemented to facilitate achievement of the TMDL reduction goals. <p>The strategy will take into account that stakeholder input will be needed:</p> <ol style="list-style-type: none"> 1. Within each sector; including wastewater, agriculture, stormwater and forestry. This input needs to include addressing existing load as well as sector growth. 2. Within targeted watersheds. Input to include: <ol style="list-style-type: none"> a. Size and location of watersheds to target. b. What should be done to achieve improvement? c. Who should do it? d. How do we demonstrate progress? 3. Issue specific <p>Phase 3 WIP will also include provisions for accounting for Sector Growth.</p>	Strategy	DEP	<p>December 2016 Status:</p> <p>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.</p>

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* 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.