

Maryland's 2016 – 2017 Programmatic Two-Year Milestones

Target Date	Milestone	Deliverable	Lead Agency	Comments/Status Updates
Point Sources				
2016-2017	<p>Improve point source data quality through NetDMR implementation.</p> <ul style="list-style-type: none"> -Advocate NetDMR reporting to all NPDES permittees. -Train NPDES permittees on using web-based NetDMR system. - Facilitate creation of NPDES and outfall specific NetDMR accounts, approval of administrator authority and going “live” with data entry. 	Report NetDMR implementation.	MDE - WMA	Federal Rule CFR 127, 81FR62395 requires all regulated NPDES facilities that currently submit paper DMRs to electronically submit DMRs as of December 21, 2016. Outreach activities, including hosting 29 netDMR Training sessions for outside entities and responding to over 980 phone calls and 831 emails have resulted in all 78 major NPDES facilities and a total of 1,130+ NPDES permittees registered and approved to submit DMRs electronically.
Point Sources/Major Municipal				
2016-2017	Upgrade Major WWTPs to ENR with State grant/loan support.	A cumulative total of 63 of 67 major WWTPs will have completed construction.	MDE - WQFA	<p>Maryland's Phase II WIP called for upgrading 67 major WWTP plants with State funds*. MDE is on track to meet this goal. State funds are available and MDE seeks Maryland Board of Public Works approval upon initiation of construction.</p> <p>Current status as of 1/17/2017:</p> <ul style="list-style-type: none"> 50 of the 67 WWTPs are in operation 14 are under construction 2 in design 1 in planning <p>* 9 additional federal and privately owned plants, being upgraded at their own expense, are not included in this accounting.</p>

Maryland 2016-2017 Programmatic Milestones
Interim Report 1/17/2017

Target Date	Milestone	Deliverable	Lead Agency	Comments/Status Updates
Point Sources/Minor Municipal				
2016-2017	Upgrade minor WWTPs to ENR with State grant/loan support.	<p>A cumulative total of 8 minor WWTPs will have completed construction; the Phase II WIP goal requires 5 minor plant upgrades.</p> <p>MDE will provide an inventory of WWTPs that have been upgraded and those scheduled for upgrades based on EPA template.</p>	MDE - WQFA	<p>Maryland's Phase II WIP called for upgrading 5 large minor WWTPs to achieve about 50,000 pounds of nitrogen reduction. MDE has met the goal for minor WWTP upgrades. Currently State funding is being allocated to 18 minor plants.</p> <p>Current Status as of 1/17/2017: 5 WWTPs are in operation 3 are under construction 4 in design 6 in planning</p>
Point Sources/Minor Industrial				
2016-2017	Update minor industrial nutrient load data.	Summary of the minor industrial load data updates.	MDE - WMA/SSA	<p>Since 2012, MDE has reviewed loads from approximately 110 out of 150 facilities that discharge to Bay watersheds (73%). MDE's reviews continue to show that the estimated loads are significantly below the target loads for 2017.</p> <p>Specifically, for TN, TP, and TSS, the 2016 estimated loads are below the 2017 target loads by 67%, 19%, and 76%, respectively. Furthermore, the 2016 estimated loads for TN and TSS are below the 2025 target loads by 62% and 83%, respectively. Maryland still has to make progress on TP for 2025, as the 2016 estimated load for TP is 2% above the 2025 target load.</p>

Maryland 2016-2017 Programmatic Milestones
Interim Report 1/17/2017

Target Date	Milestone	Deliverable	Lead Agency	Comments/Status Updates
Septic Systems				
2016-2017	<p>Facilitate implementation of septic connections to ENR facilities in Critical Area and other areas of Maryland with funding support of BRF funds.</p> <p>- Provide technical and policy assistance to local governments to facilitate connections of septic tanks to WWTPs.</p> <p>- Market recent changes in the eligible use of BRF as a funding source for septic connections to ENR facilities.</p>	<p>Report number of Septic Connections to ENR facilities.</p> <p>New programs will be part of the December 2015 and future solicitations.</p>	<p>MDE WMA/ MDP MDE - WQFA</p>	<p>Current Status: Milestone Period: BAT Installations:1881 Public Sewer Connections: 40 Holding tanks: 20 Drainfields with BRF Money: 5</p> <p>This program will start in FY 2018 (7/1/2017)</p> <p>MDE and MDP gave presentations at a one-day workshop hosted by the Healthy Waters Round Table at the Chesapeake College on December 14, 2016 to provide guidance to Eastern Shore counties and municipalities on best approaches to successfully implement septic system connection projects</p>
2016-2017	<p>Improve tracking and reporting of O&M and BAT upgrades via newly developed and launched net-based BAT data tracking database.</p>	<p>Reports to SSA (Bay Program) on BAT implementation and O&M.</p>	<p>MDE - WMA</p>	<p>Net-based Database is being utilized by all counties and MDE for tracking. MDE's OIT is working with WMA to enhance tracking capabilities. Operation and Maintenance of individual BAT systems is being tracked at the county level by 12 of the 23 counties utilizing the MDE database. O&M providers, Vendors and County personnel are entering information regularly. Non Compliance notification has begun in accordance with COMAR. The MDE reformed the regulation requiring service contracts on BAT installations. There are new requirements for two-year operation,</p>

Maryland 2016-2017 Programmatic Milestones
Interim Report 1/17/2017

Target Date	Milestone	Deliverable	Lead Agency	Comments/Status Updates
				maintenance, and warranty with each BAT installed in MD.
2016-2017	Review and expand a range of new, innovative, cost-effective nutrient removal BAT technologies to be available for upgrade of septic systems in Maryland.	Develop criteria for evaluation and selection of new BAT systems utilizing national peer reviewed BMPs (soil distribution and other innovative practices.)	MDE - WMA	Class I, II, III, IV and V BAT systems criteria has been developed in response to the OSWTS Nitrogen Reduction Technology Expert Review Panel recommendations. The Classes cover all aspects of N reduction capabilities from onsite systems from traditional BAT to soil dispersal systems.
Urban Stormwater/Phase I MS4				
2016	Phase I MS4 Financial Assurance Plans. - Analyze all financial assurance plans based on the specific criteria in Maryland law for what constitutes an adequate financial assurance plan.	Report on the status of Phase I MS4 Financial Assurance Plans by September, 2016.	MDE - WMA	MDE completed reviews of the financial assurance plans according to the specific criteria in Maryland law and provided these evaluations to the CBP and EPA, Region III on 10/19/2016. Additionally, the reviews may be found on MDE's webpage here: http://mde.maryland.gov/programs/Water/StormwaterManagementProgram/SedimentandStormwaterHome/Pages/WPRPFinancialAssurancePlans.aspx
2017	Report Phase I MS4 BMP implementation for Progress via newly developed GIS database.	Database output	MDE - WMA/ SSA	Phase I MS4s have begun to use MDE's GIS database for BMP implementation reporting.
2016-2017	Maryland will develop an MS4 permit template for EPA review that articulates the requirements of the Phase I permits set to expire in 2018. A draft will be shared with the Agency and a final will be developed based on	Provide draft and final MDE template to EPA	MDE- WMA	MDE is committed to begin working with all stakeholders, including EPA, in 2017 to make updates to the current MS4 template.

Maryland 2016-2017 Programmatic Milestones
Interim Report 1/17/2017

Target Date	Milestone	Deliverable	Lead Agency	Comments/Status Updates
	that feedback before the end of the 2016/2017 milestone period.			
2017	Montgomery County Phase I MS4 Permit	Current Montgomery County permit will be administratively continued. MDE will enter into Consent Agreement with Montgomery County.	MDE - WMA	MDE is negotiating a Consent Agreement with Montgomery County.
2016-2017	Maryland will review, approve, and/or take appropriate enforcement actions according to established SOP on Phase I MS4 Restoration Plans submitted during or prior to the 2016/2017 period. Maryland will report to EPA on the status of reviews quarterly towards a target of completing at least 50% of the review actions by the end of 2016 and 100% by the end of 2017.	Provide MDE review documents to EPA.	MDE - WMA/ SSA	MDE completed MS4 Restoration Plan evaluations for Anne Arundel, Baltimore, Howard, Montgomery, and Prince George's Counties, and Baltimore City, or 55% of the Phase I permits issued in Maryland. These evaluations were submitted to the CBP on November 9, 2016. MDE anticipates completing MS4 Restoration Plan evaluations for Carroll, Charles, Frederick, and Harford Counties, and Maryland's State Highway Administration by the end of 2017.
2016-2017	Keep MS4 Guidance up-to-date. – Include latest BMP efficiencies and flexibility in meeting permit requirements and 2025 goals.	Updates as appropriate	MDE - WMA	MDE has continued to update the MS4 community on the latest BMP efficiencies and will incorporate any new BMPs into MS4 Guidance updates as necessary.
2016-2017	Market BRF as an eligible funding source for SWM Retrofit implementation.	This new program will be the December 2015 and future solicitations	MDE - WQFA	This program will start in FY 2018 (7/1/2017)

Maryland 2016-2017 Programmatic Milestones Interim Report 1/17/2017

[illegible]

Maryland 2016-2017 Programmatic Milestones
Interim Report 1/17/2017

Target Date	Milestone	Deliverable	Lead Agency	Comments/Status Updates
	support of the Maryland Phosphorus Initiative.	alternative use projects that can use the product as a valuable resource		
2016-2017	Certify the verifiers for the Agricultural Certainty program.	Work closely with the Nutrient Trading Program and anticipate future trades will be used in conjunction with the Certainty Program. Continued outreach to local farm community	MDA	As of December 2016, MDA has certified five verifiers. MDA continues to participate in agricultural forums to promote the Certainty Program
2016-2017	Accounting for growth in the Poultry Industry	Document current and future growth in the poultry industry though CAFO/MAFO permits numbers and reconcile those against NASS annual numbers. Estimate nutrients associated with manure incrementally over two year milestone period	MDA	Data is submitted to CBPO modelers to align with Poultry Litter Subcommittee Report for inclusion in the model Data is submitted to CBPO modelers to align with Poultry Litter Subcommittee Report for inclusion in the model
2016-2017	Phosphorus Management Tool using a phased-in approach through 2022 with potential to extend to 2024 for reasons of resource shortfalls.	Conduct a two year study (2015-2016) "PMT On-Farm Economic Analysis Project" to better understand outcomes and impacts of requirements. Collecting soil analysis data to better understand the scope	MDA	Regulation took effect June 8, 2015, restricting all farms with phosphorus FIV levels over 500 from applying manure. One year's data has been collected and reviewed for purposes of the economic study. As of November 2016, soils phosphorus data has been collected on greater than 1

Maryland 2016-2017 Programmatic Milestones
Interim Report 1/17/2017

Target Date	Milestone	Deliverable	Lead Agency	Comments/Status Updates
		<p>of farm fields with phosphorus FIV levels above 150.</p> <p>Collect information to track operations according to the appropriate Tier that will govern PMT implementation schedule.</p>		<p>million acres. Of the collected data, only 18% of sampled acres are subject to PMT evaluation and potential management changes.</p> <p>Collection of Tier information was initiated in 2016.</p>
2016-2017	CAFO Permit/Registration	Increased registrations	MDE	Maryland will make its best effort to ensure all new CAFO/MAFOs receive permit coverage by December 2018 and all renewal registrations that are administratively extended are also processed.
Nutrient Trading Policy				
2016-2017	<p>Finalize Draft Maryland Trading and Offset Guidance Manual</p> <p>Explore potential for pilot projects.</p> <p>Finalize actions/recommendations of the Maryland Water Quality Trading Advisory Committee (WQTAC).</p>	<p>Final Maryland Trading and Offset Guidance Manual – January 2017.</p> <p>2017-Report on status of the Pilot Projects.</p>	MDE - MDA	<p>The Draft Maryland Trading and Offset Guidance Manual is being reviewed by WQTAC. It consolidated MDE's 2008 point-to-point trading policy, MDA's trading policy documents and incorporated new trading policy for MS4 jurisdictions. WQTAC is completing the review of the Draft and will identify any needed amendments to State law and regulations, or any other actions to implement trading. MDE and MDA revised Draft Trading Manual based on the WQTAC comments. Final Draft of the Trading Manual was provided to WQTAC in September 2016. MDE/MDA received additional comments from WQTAC in November 2016 and EPA in December of 2016. 2017 Update of the Final Draft will address new comments.</p>

Maryland 2016-2017 Programmatic Milestones
Interim Report 1/17/2017

Target Date	Milestone	Deliverable	Lead Agency	Comments/Status Updates
2016-2017	Accounting for Growth	Policy on AfG	MDE	Continue formulation of an accounting for growth policy and regulations if appropriate
2016	Regulations that establish the requirements and standards for the generation and certification of nutrient and sediment credits on agricultural land.	Final Regulations	MDA	Revised regulations were adopted as of 8/29/16. .
Sector Growth Demonstration				
2016-2017	Sector Growth Demonstration	Sector Growth Demonstration Documentation	MDE - SSA	From EPA Interim Evaluation (June 2015): EPA expects Maryland to continue to identify new or increased sector loads and offset these within the appropriate timeframe and to continue to track and account for new or increased loads identified in sector growth demonstrations. The demonstration should address how to quantify and offset any increase of nutrients from increases in poultry houses that are projected for the Delmarva region
Other				
2016-2017	Market recently approved eligible uses of BRF and other State Funding Programs to increase implementation of Septic Strategies, SWM retrofits, Minor WWTP upgrades.	WQFA has already started with the solicitation to fund minor WWTPs. New programs will be part of December 2015 funding solicitation and every year thereafter, which will introduce these funding programs to over 600 eligible applicants.	MDE - WQFA	Please see minor WWTPs status above.

Maryland 2016-2017 Programmatic Milestones
Interim Report 1/17/2017

Target Date	Milestone	Deliverable	Lead Agency	Comments/Status Updates
2016 – 2017	Chesapeake and Atlantic Coastal Bays Trust Fund: Cost-Effective Non-Point Source Pollution Reduction Projects	Increase funding available for competitive solicitations of the most cost-effective, efficient nonpoint source pollution reduction projects by exploring opportunities for private capital and continued leveraging of public funds.	DNR - Bay Agencies	The Trust Fund awarded \$23.25 M through a competitive solicitation to 21 projects in targeted areas of the state. In December 2016, the Bay Agencies issued a solicitation for projects seeking funding in FY18. Based on current DBM projections, the state will award up to \$28 M through the FY18 solicitation. Proposals are due March 31, 2017. Trust Fund managers will continue to target the funds based on cost-efficiency, geographic targeting, and readiness to proceed, while exploring legislative and grant mechanism changes to leverage more private capital and investment in non-point source pollution reduction.
2016-2017	Chesapeake & Atlantic Coastal Bays Trust Fund: Strategic & Targeted Monitoring	Continue to monitor targeted Trust Fund projects sites for efficacy and annually issue a Restoration Research grant in partnership with Chesapeake Bay Trust to answer key scientific questions about Non-point Source pollution reduction projects.	DNR	The Restoration Research grant was awarded to six projects in FY16, totaling approximately \$86,000 to answer distinct restoration questions aimed at informing restoration specialists, regulators, and legislators. Funding from the Trust Fund is supplemented with CBT funds and potentially county funds. A solicitation for FY17 projects has been issued with proposals due February 20, 2017 – a \$1.2 M opportunity this year. In addition to these monitoring efforts, Resource Assessment Service at DNR continues to provide long-term monitoring of isolated BMPs to determine efficacy and efficiency of state investments.

Maryland 2016-2017 Programmatic Milestones
Interim Report 1/17/2017

Target Date	Milestone	Deliverable	Lead Agency	Comments/Status Updates
2016 – 2017	Chesapeake & Atlantic Coastal Bays Trust Fund: Technical Support through Restoration Specialists	Provide continued hands-on landscape level technical assistance to local governments and non-governmental organizations implementing restoration projects in the watershed	DNR	Restoration specialists at the Center for Habitat Restoration and Conservation at DNR continue to provide technical assistance to local governments, watershed organizations, private landowners and others interested in addressing water quality and natural resource management issues with latest science and techniques.
2016 – 2017	Chesapeake & Atlantic Coastal Bays Trust Fund: Technical Support through Soil Conservation District staff	Provide continued technical support to evaluate, design, and assist farmers with the installation of BMPs.	DNR - MDA	The Trust Fund provided \$3.29 M in FY16 and FY17 in support of 66 soil conservation district positions (41 state and 25 local cost-share).
2016 - 2017	Chesapeake and Atlantic Coastal Bays Trust Fund: Innovative Technology Fund	Develop new non-point source BMPs for nitrogen, phosphorus and sediment reduction by: (1) Annually fund 2-6 research and development projects, and invest in one commercial project; (2) Develop and implement a new program for pilot scale demonstrations of technologies, providing greater confidence that the technologies will function when implemented under operational conditions; (3) Applicable new innovative BMPs will be reviewed using the Bay Partnership approval process.	DNR	(1) SFY16 & 17 budget sufficient to sustain this level of implementation; 3 new investments in fall 2016 (2) Limited funds for one project are available in SFY16. DNR will continue to pursue partnerships with state, federal, and local government partners, as well as private parties, to enhance field testing of promising Bay restoration technologies; helping to close the gap between research and commercialization; (3) Working with the Bay Program Partnership, MD will continue to offer support for review of various new BMPs. Potential BMPs are: Agricultural Cascading Systems, Permeable Pavement Soil Media. Algal Flow-way Technologies, as well as Floating Treatment Wetlands, were approved in 2016.

Maryland 2016-2017 Programmatic Milestones
Interim Report 1/17/2017

Target Date	Milestone	Deliverable	Lead Agency	Comments/Status Updates
2016	BMP Calculator	Design and develop a publicly available open-source application that enables applicants and grantees to estimate the nitrogen, phosphorus and sediment reductions expected from their implementation projects.	DNR	CBIG funds were used for Chesapeake Commons to develop the tool for the Chesapeake and Atlantic Coastal Bays Trust Fund. The tool is available at FieldDoc.com for calculating reductions from multiple agricultural and urban stormwater BMPs. Maryland is using Trust Fund dollars to continue supporting and building FieldDoc.com into 2017.
2016-2017	Chesapeake and Atlantic Coastal Bays Trust Fund: Watershed Assistance Collaborative	Provide leadership with a dedicated DNR staff and continue funding for Maryland's Watershed Assistance Collaborative's (WAC) effort to expand the communities it works with and improve outreach. Fund and manage two Watershed Specialists' outreach in 9 counties.	DNR	In addition to the five restoration specialists, long-term financing strategy development is provided by the Environmental Finance Center to local communities. These strategies will address local community stormwater financing and help craft strategies that best meet local needs. Currently undergoing hiring process for replacing one of the watershed Specialists. This should finish up in early February.
2016-2017	Local 2-year Milestone Support Funding	Annually provide at least \$1 million in funding to support local two-year milestone implementation.	DNR - MDE	Beginning in FFY14 MDE, DNR and the Chesapeake Bay Trust (CBT) began a collaborative process of administering federal funds to support local 2-year milestone implementation. This is an extension of the Watershed Assistance Grant Program (WAGP) initiated by DNR and CBT. This funding goes toward program development planning and the design of urban stormwater projects. The later leads to shovel-ready projects for larger capital grant funding of restoration. Funding continued in SFY16 and is in the

Maryland 2016-2017 Programmatic Milestones
Interim Report 1/17/2017

Target Date	Milestone	Deliverable	Lead Agency	Comments/Status Updates
				SFY17 budget. Interest in WAGP continues to increase. Both the number of applicants and requested funds increased in FY17. Awards also increased with \$2 million in awards for 30 design and planning grants going to 13 different counties.
2016-2017	Create a Maryland Stream ReLeaf Implementation Plan for 2015-2020 through the multi-stakeholder Stream ReLeaf Coordinating Committee	Maryland Stream ReLeaf Implementation Plan for 2015-2020	DNR	The Stream ReLeaf Coordinating Committee met in September 2016 and prioritized the Stream ReLeaf Plan and implementation schedule for 2015-2020.
2016-2017	Stormwater and Nutrient Abatement Program (SNAP)	Implementation of a program to identify, evaluate, prioritize and implement restoration projects on DNR lands to assist the State Highway Administration in reaching its allocated TMDL reduction.	DNR - SHA	A Memorandum of Understanding between DNR and SHA was executed in October 2016 to provide restoration projects on DNR lands funded by SHA. Two stormwater retrofit projects and two stream restorations are scheduled to begin construction in 2017 with additional projects coming on-line throughout the milestone period. SHA will complete an assessment of stormwater retrofit opportunities in early 2017. Projects will then be selected with design and construction occurring over the next few years.
2016	SMART Homeowner BMP Tracking Tool	Statewide release in fall 2015/winter 2016 of an on-line tracking tool to quantify the contribution of small scale community and homeowner BMPs	UME - DNR	After DNR delivered calculations for the SMART tool, the coding team at Towson GIS was reorganized and the project stalled. UME is currently seeking funding to continue with development for a full scale launch.