Maryland's 2018 – 2019 Programmatic Two-Year Milestones

Target Date	Milestone	Deliverable	Lead Agency	Comments/Status Updates
Point Sources				
2018-2019	Improve point source data quality through NetDMR implementation. - MDE will work to ensure all of the remaining facilities with NPDES permits that are required to adopt the Net DMR system complete their registration	Report NetDMR implementation.	MDE - WSA	
Point Sources/Major Municipal				
2018-2019	Upgrade Major WWTPs to ENR with State grant/loan support.	A cumulative total of 65 of 67 major WWTPs will have completed construction.	MDE - WQFA	
Point Sources/Minor Municipal				
2018-2019	Upgrade minor WWTPs to ENR with State grant/loan support.	A cumulative total of 8 minor WWTPs will have completed construction. The Phase II WIP goal required 5 minor plant upgrades, which has been met. MDE will provide an inventory of WWTPs that have been upgraded and those scheduled for upgrades based on EPA template.	MDE - WQFA	

Point Sources/Minor Industrial				
2018-2019	Continue to update minor industrial nutrient load data.	Summary of the minor industrial load data updates.	MDE – WSA, WWPP	
Septic Systems				
2018-2019	Continue to facilitate implementation of septic connections to ENR facilities in Critical Area and other areas of Maryland with funding support of BRF funds. - Provide technical and policy assistance to local governments to facilitate connections of septic tanks to WWTPs. - Market recent changes in the eligible use of BRF as a funding source for septic connections to ENR facilities.	Report number of Septic Connections to ENR facilities. Continue to include program as part of solicitation.	MDE WSA/ WQFA, MDP	
2018-2019	Improve county programs for installation of BAT units in areas of special concern or focus areas.	Status report on review of local problem areas relative to water quality issues and contaminated areas based on soil conditions.	MDE - WWPP	
2018-2019	Amend regulations to include loading rate decreases when Best AvailableTechnolog y (BAT) or Membrane Bioreact or (MBR) technology is utilized	Develop criteria for evaluation and selection of new MBR technology, improve the operation and maintenance component for BAT and MBR technologies.	MDE - WWPP	

Urban Stormwater/Phase I MS4				
2018-2019	Report Phase I MS4 BMP implementation for Progress via newly developed GIS database. The use of this database will be a requirement in all MS4 Phase I permits.	Database output	MDE – WSA, SSDS	
2018-2019	Maryland developed an MS4 permit template for EPA review that articulates the requirements of the Phase I permits set to expire in 2018. MDE will continue working with environmental groups, the Maryland Association of Counties, and EPA to make updates to the current MS4 template.	Provide final MDE template to EPA	MDE-WSA	
2018-2019	Montgomery County Phase I MS4 Permit	Current Montgomery County permit will be administratively continued. MDE will enter into Consent Agreement with Montgomery County.	MDE – WSA, SSDS	
2018-2019	Maryland will review, approve, and/or take appropriate enforcement action according to established SOP on Phase I MS4 Restoration Plans submitted during or prior to the 2018/2019 period.	Provide MDE review documents to EPA.	MDE – WSA, SSDS	

2018-2019	Keep MS4 Guidance up-to-date. – Include latest BMP efficiencies and flexibility in meeting permit requirements and 2025 goals.	Updates as appropriate	MDE - WSA	
2018-2019	Continue to market BRF as an eligible funding source for SWM Retrofit implementation.	Report on number of projects funded	MDE - WQFA	
Urban Stormwater/Phase II MS4				
2018-2019	Issue Final Determination for Phase II MS4 permits - Review Draft Phase II permits for consistency with outcomes of the legal issues associated with Phase I MS4 permits. - Review and incorporate EPA's final stormwater general permitting rule, published by EPA in November 2016, into Maryland's Phase II MS4 general permits. Final Determination for Phase II MS4 permit	 March 31, 2018	MDE - WSA	
Agriculture				
2018-2019	Solicit proposals for funding that will support demonstrations for alternative technologies that use and manage animal waste, including manure-to-energy	Solicitations will be forthcoming in FY2018 and FY2019.	MDA - DNR	

	technologies.			
2018-2019	Facilitate participation and provide continued financial incentives in FY 2018 and 2019 for the Manure Transport Program in support of the Maryland Phosphorus Initiative.	Provide financial assistance to farmers who cannot use manure in accordance with a Nutrient Management Plan to transport the manure to a producer or alternative use that can utilize it.	MDA	
2018-2019	Implement the Maryland Phosphorus Initiative -Refine soils data collection to track Phosphorus Management Tool use and assure implementation Tiers as farms transition	Report status on PMT Initiative	MDA	2018 begins the Tier transition schedule to implement the PMT. Operations that have a P-FIV >450 are placed into tier C. Those operations that are in Tier B P-FIV 300-450 begin transition in 2019. Regulations adopted in 2015 still place a ban on P application on fields with an P-FIV >500. Implementation reviews will be initiated to confirm adherence to the regulations. Soils data refinement is ongoing as we are doing implementation reviews to obtain the data for operations that were not initially reported.
2018-2019	Certify the verifiers for the Agricultural Certainty program.	Work closely with the Nutrient Trading Program and anticipate the Certainty Program will be used to prequalify producers for participation in trading. Continued outreach to local farm community	MDA	

2018-2019	Increase public awareness of agriculture's conservation efforts	Provide public, web-based tools demonstrating conservation implementation within Maryland's agricultural sector MDA will develop an interactive Dashboard to demonstrate conservation implemtation levels of multiple BMP types at county and/or basin scales.	MDA	
2018-2019	CAFO Permit/Registrations/Renewal	Renew general CAFO permit by December 1, 2019. Register remaining CAFOs under 2014 general permit: unregistered CAFOs and CAFOs with administratively extended registrations under 2009 general permit by December 1, 2019.	MDE/ LMA	
Nutrient and Sediment Trading Program				
2018-2019	Finalize proposed COMAR 26.08.11, Maryland Water Quality Trading Program. Develop forms for certification, verification and registration of credits. Update April 2017 Maryland Trading and Offset Guidance Manual be consistent with the adopted COMAR 26.08.11	2018 Final Regulations COMAR 26.08.11 2018 - Final Forms for certification, verification and registration of credits. Updated Trading and Offset Guidance Manual	MDE - MDA	

	Incorporate specific language on trading permits, e.g. if MS4s will be allowed to use trading to fulfill its restoration requirements or WWTPs plan to use credits in the market.	Update permits		
2018-2019	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 August 29, 2016, but some additional changes may be necessary when final trading program regulations are adopted.
Growth				
2018-2019	Growth Updates - MDE will update CBP modeling tools with new local data on a two year basis in coordination with MDP, and explore the use of the MDP Growth Simulation Model as an alternative to the CBP modeling tools to account for 2025 projected growth	Provide Growth Documentation	MDE, IWPP/ MDP	
2018-2019	Accounting for Growth	Policy on AfG -Continue formulation of an accounting for growth policy and regulations if appropriate	MDE	
2018-2019	Sector Growth Demonstration	Documentation	MDE	
2018-2019	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	MDA	MDA, in cooperation with MDE's CAFO/MAFO permit authority, will review expected poultry inventory for comparison with NASS data. Concurrently, MDA will pursue

		annual numbers. Estimate nutrients associated with manure incrementally over two year milestone period		information from industry partners on poultry inventory both for new growth versus replacement inventory. Data sources for submission to CBPO modelers to align with Poultry Litter Subcommittee Report for inclusion in the model is TBD
Other				
2018-2019	Maryland will continue its involvement in the Federal Facilities Workgroup (FFW) to assist federal agencies track and report BMP implementation on federal lands.	Continued coordination with federal agencies to ensure federal facility targets, the use of the Phase 6 watershed model, and federal facility-content in the Phase III WIP are fully supportive of Maryland's WIP implementation.	MDE	
2018-2019	Continue to market 2017 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 and will continue to offer these funding opportunities to over 600 eligible applicants.	MDE - WQFA	
2018-2019	Clean Water Commerce Act -Complete regulation promulgation -Implement Request for Proposals for the purchase of nutrient and sediment reductions -Complete the purchase of up to $4M for reductions in SFY2018; $6M in SFY 2019	- Regulations - RFP SFY2018 & SFY2019 - Report status of Purchase	MDE – WQFA	

2018-2019	Water Reuse Initiative -MDE will investigate water re-use as a new initiative	Develop recommendations for policy changes	MDE	
2018-2019	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 SFY19 request for proposals was issued on November 27, 2017: http://dnr.maryland.gov/ccs/Pages/funding/trust-fund_grants.aspx Applications are due March 30, 2018 and awards will be announced by July 1, 2018. DNR plans to allocate and award about $21 million. Trust Fund managers will continue to target the funds based on cost-efficiency, geographic targeting, and readiness and ability to proceed, while exploring legislative and grant mechanism changes to leverage more private capital and investment in non-point source pollution reduction.
2018-2019	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	A solicitation for FY18 projects will be issued in the winter of 2018 for the next round of research proposals. 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
2018-2019	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	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

		projects in the watershed		and natural resource management issues with latest science and techniques. These specialists also work with applicants to Chesapeake Bay Trust's Watershed Assistance Grant, the Trust Fund competitive solicitation and Natural Filters funding to promote best management practice techniques that advance restoration science, outcomes, and cost-efficiency.
2018-2019	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 proposed SFY19 Trust Fund budget continues supporting 66 soil conservation district positions (41 state and 25 local cost-share).
2018-2019	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) Expand partnerships with other programs that develop emerging technologies and products; (3) Applicable new innovative BMPs will be reviewed using the Bay Partnership approval process or other appropriate implementation review avenue.	DNR	Proposed SFY19 budget at $1million will continue research and development projects and seed capital investments.
2018-2019	BMP Calculator	Design and develop a publicly available open-	DNR	FieldDoc.com will be updated with the Phase 6 Watershed Model. New BMPs

		source application that enables applicants and grantees to estimate the nitrogen, phosphorus and sediment reductions expected from their implementation projects.		added as approved by the Partnership.
2018-2019	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.
2018-2019	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 latter leads to shovel-ready projects for larger capital grant funding of restoration. Funding continued in FFY17 and is in the FFY18 planned budget.
2018-2019	Create a Maryland Stream ReLeaf Implementation Plan for	Maryland Stream ReLeaf Implementation Plan for	DNR	Focus on buffer monitoring and NFWF grant to address invasive species and

	2015-2020 through the multi-stakeholder Stream ReLeaf Coordinating Committee	2015-2020		concentrated flow issues. Collect data on increasing function over time of previously planted buffers, and the transformative nature for streams. Investments in CREP easements show good progress. FSA surveys of those not re-enrolling in CREP found that a third of forest buffers can't reenroll because they are in easements now.
2018-2019	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.
2018-2019	Coastal Resiliency Grant Program	Design and implement innovative climate-resilient coastal restoration projects	DNR	The goal of this program is to utilize natural and nature-based features to help protect coastal residents, economies and public resources from the full impacts of flooding, erosion, storm surge, and sea level rise. Four projects are currently underway in Prince George's, St. Mary's, Dorchester, and Somerset counties, with two additional projects planned for Anne Arundel County. CCS plans to competitively solicit projects for FY 2019 and will work with grantees through all phases of completion, including design, permitting, construction, adaptive management, outreach, and monitoring.
2018-2019	Carbon Farming on DNR Owned Agricultural Land		DNR	A new initiative called "Carbon Farming" that would use DNR owned agricultural land to pilot implementation of practices that increase

				the concentration of carbon in the soil. This initiative would link directly to Maryland's Healthy Soils Program that was passed last legislative session and directly contribute to the Maryland's Greenhouse Gas Reduction Plan as a carbon sequestration mitigation strategy. Carbon farming involves implementing practices that are known to improve the rate at which CO2 is removed from the atmosphere and converted to plant material and/or soil organic matter. Carbon farming is successful when carbon gains resulting from enhanced land management and/or conservation practices exceed carbon losses.
2018-2019	A resilient and ready Maryland	Utilize restoration for resiliency	DNR	To address the immediate and increasing threat of flooding and higher intensity storms, we will develop a Resiliency Financing Institute to identify sustainable funding sources for investments that reduce risk; undertake priority resiliency projects to protect vulnerable coastal communities and ecosystems, and launch a local adaptation certification program that will enable local government agencies to gain better knowledge to address local risks. This will be accomplished through: 1) utilizing natural features to protect against flooding, erosion, storm surge and sea level rise; 2) develop a resiliency financing tool; 3) advancing the science of thin layered dredge applications for habitat management and climate co-benefits; 4) continue resilient communities grants; 5) making state parks more resilient via green infrastructure; 6) partner with federal military

				bases on landuse study; 7) incorporate resiliency benefits onto land conservation acquisitions
2018-2019	Accelerate Oyster Restoration and Aquaculture for Water Quality	Increase oyster biomass for use in Bay Program crediting	DNR	Increasing biomass will be achieved by: 1) solving ongoing issues with supply constraints of oyster larvae and shell; 2) developing oyster cooperatives with MDOT, ORP and others to fund and implement oyster biomass production; 3) connecting private capital to aquaculture