

# 2020/2021 Milestone Priorities for Maryland's Phase III WIP

		Milestone	Agency	Steps to Achieve MS Goals	Deliverable
<p>The practices identified in this section represent the additional new or revised priority implementation efforts that Maryland proposes to meet Phase III WIP Goals.</p>	<p><b>Agriculture</b></p>	<p><b>Agricultural Drainage Management</b></p>	MDA	<ol style="list-style-type: none"> <li>1) Add drainage management BMPs to MACS Program</li> <li>2) Collaborate with Conservation Partners to identify opportunities for implementation.</li> <li>3) Provide appropriate training for drainage management BMP design &amp; installation.</li> </ol>	<p><b>4,156 acres managed under Agricultural Drainage Management</b></p>
		<p><b>Pasture and Grazing Management</b></p>	MDA	<ol style="list-style-type: none"> <li>1) Identify opportunities for additional stream exclusion fencing</li> <li>2) Working with NRCS, MDA will conduct grazing management training for field staff</li> <li>3) Re-engage the Horse Outreach Workgroup to provide technical assistance to equine operations</li> <li>4) Collaborate with conservation partners in securing additional funding to support pasture/grazing operations management.</li> </ol>	<p><b>292 Total Acres under Horse Pasture Management</b></p> <p><b>3,232 Total Acres under Prescribed Grazing</b></p>
		<p><b>Increase Conservation Practice Adoption on Leased Land</b></p>	MDA	<ol style="list-style-type: none"> <li>1) Work with conservation partners regarding outreach/education to non-operating landowners</li> <li>2) Explore options to incentivize conservation participation with non-operation landowners</li> <li>3) Work with conservation partners to evaluate/combine existing stewardship recognition programs (Certainty, FSCAP, CSP etc)</li> </ol>	<p><b># of Landowners reached</b></p>

		<b>Increased Technical Assistance</b>	MDA, MDDNR	<p>1) MDA has worked with the Governor's office to propose a reallocation of funding from the Chesapeake and Atlantic Coastal Bays Trust Fund to support up to 53 State positions within Maryland that will provide direct technical assistance to farmers and boost the State's BMP verification program to support the WIP. While the funding reallocation was approved, the timeline for hiring is currently being evaluated given the anticipated fiscal impact from COVID-19.</p> <p>2) In agreements between the Resource Conservation Program and Soil Conservation Districts, funding distribution has been aligned with demonstrated progress towards WIP goals at the local level.</p>	<b># of Positions Created</b>
	<b>Wastewater</b>	<b>Continue to upgrade non-significant wastewater treatment plants (WWTPs)</b>	MDE	<p>1) Modify the permits for proposed facilities (1 per year) to allow for upgrade to ENR</p> <p>2) Modify the BRF ranking tool to allow for smaller facilities to qualify for State grants</p>	<b>2 non-significant WWTPs will be upgraded.</b>
		<b>Maintain significant facilities at 3.25 mg/L or lower for Nitrogen</b>	MDE	<p>1) Aim for meeting the Phase III WIP 2025 average statewide operational nitrogen effluent goal of 3.25 mg/L for municipal wastewater plants during State Fiscal Year 2021.</p> <p>2) Evaluate the effectiveness of State wastewater incentives programs (Bay Restoration Fund Operations and Maintenance Grant, Clean Water Commerce Act, Water Quality Trading Program) and other regulations toward achieving the 3.25 mg/L Phase III WIP goal. If necessary, consider modifications to programs.</p>	<p><b>3.25 mg/L based on 2021 Progress</b></p> <p><b>A summary of the effectiveness of State wastewater incentive programs</b></p>
		<b>Finish ENR upgrades to Significant Facilities</b>	MDE	<p>1) Continue to work with remaining facilities to ensure their contracts and construction are proceeding on time</p>	<b>Updated inventory of upgraded plants, and scheduled upgrades</b>

	Natural Filters	Oyster Reef Restoration	DNR	<ul style="list-style-type: none"> <li>1) Complete restoration in Little Choptank River (2020)</li> <li>2) Complete an initial planting in the Tred Avon River (2021)</li> <li>3) Complete the final planting in Harris Creek (2020)</li> <li>4) Complete the final restoration blueprints and begin restoration activities for St. Mary's and Manokin restorations</li> <li>5) Continue monitoring and sampling to ensure successful metrics as defined by the Chesapeake Bay Agreement</li> </ul>	<p><b>177.2 Acres of restored oyster reefs</b></p> <p><b>Completed Blueprints for St. Mary's and Manokin restoration sites</b></p>
		Forest Market Strategy	DNR	<ul style="list-style-type: none"> <li>1) Promote local forest product markets, which include value-added products and woody biomass used for local generation of thermal energy and electricity.</li> <li>2) Fund silviculture needed for forest health and to attract private investment that preserves existing forest and expands forests.</li> </ul>	<b>Completed Maryland Economic Adjustment Strategy that supports sustainable forestry</b>
		Incentivise Forest Conservation in Developed Sector	MDE	Include forest conservation measures within the updated Accounting Guidance for the fifth generation Phase I MS4 permits	<b>Increased implementation of these practices documented in the annual reports</b>
	Stormwater	Finalize the next generation Phase I MS4 permits	MDE	<ul style="list-style-type: none"> <li>1) Issue final determinations for the next generation Phase I MS4 permits for five large and five medium jurisdictions</li> <li>2) Issue tentative determination for the State Highway Administration's Phase I MS4 permit</li> <li>3) Issue accounting guidance for the fifth-generation permit</li> <li>4) Additional impervious acre retrofit requirement of approximately 2 percent per permit year, in aggregate, from the dates when the permits are issued</li> </ul>	<p><b>Large permits issued and enforced</b></p> <p><b>Issue Accounting Guidance</b></p> <p><b>Medium permits issued and enforced</b></p>

		<b>Atmospheric Deposition</b>	MDE	Investigate opportunities to receive model credit for NOx emissions reductions strategies identified in Maryland's Phase III WIP	<b>Initiate process for crediting non-VW-settlement NOx reductions within bay accounting framework</b>
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# Other 2020/2021 WIP Milestones

		Milestone	Agency	Steps to Achieve MS Goals	Deliverable
<p>The milestones identified in this section show existing BMP or programmatic implementation programs that continue to support WIP implementation.</p>	<p><b>Agriculture</b></p>	<p><b>Traditional Cover Crop Implementation</b></p>	<p>MDA</p>	<p>1) Continue to work with the agricultural community to ensure strong participation in the Maryland Cover Crop Program. 2) Continue to evaluate and refine program policies in consideration of environmental and economic factors. 3) Develop a Soil Health Program that will also help promote the benefits of cover crops in row crop production.</p>	<p><b>470,000 acres of traditional cover crop</b></p>
		<p><b>Soil Conservation and Water Quality Planning</b></p>	<p>MDA</p>	<p>1) Continue to work with USDA-NRCS and local Soil Conservation Districts in SCWQP development 2) Work with the Conservation Partnership to identify and address Technical Assistance gaps.</p>	<p><b>1,000,000 acres managed under a Conservation Plan</b></p>
		<p><b>Tillage Management</b></p>	<p>MDA</p>	<p>1) Through the Soil Health Program, highlight the co-benefits provided by long-term utilization of tillage management practices.</p>	<p><b>Work towards 248,000 acres of conservation tillage annually</b></p> <p><b>643,000 acres of high residue tillage annually</b></p>
		<p><b>Animal Waste Management Systems</b></p>	<p>MDA</p>	<p>1) Continue to work with USDA-NRCS and local Soil Conservation Districts to identify and address resource concerns in the area of animal waste management. 2) Continued funding of storage facilities through MACS and EQIP.</p>	<p><b>Poultry - 100% AU</b> <b>Dairy - 90% AU</b> <b>Livestock - 50% AU</b></p>

		<b>Grass &amp; Riparian Buffers</b>	MDA	1) Incentivize implementation of grass buffers through enrollment in the Conservation Reserve Enhancement Program. 2) Collaborate with Conservation Partners to identify implementation opportunities in conjunction with other practices.	<b>Additional 605 acres a year</b>
		<b>Nutrient Management Core Nitrogen</b>	MDA	1) Continue to work with the agricultural community to ensure fertilizers, manure, and other nutrient sources are applied in an effective and environmentally sound manner. 2) Continue to provide education and training regarding proper nutrient application in adherence with a nutrient management plan and all current regulations.	<b>70% compliance rate</b>
		<b>Pocomoke and Wicomico River Basins</b>	MDA	Data from 2014 to 2016 showed the Pocomoke and Wicomico Rivers as having some of the highest levels of summer dissolved oxygen open water criteria exceedances in Maryland. EPA's evaluation of Maryland's Phase III WIP recommended that the state, "target implementation in the most impaired segments." Wicomico, Worcester, and Somerset counties, where the Pocomoke and Wicomico river basins are located, have collectively committed to: 1) Working within the Soil Conservation District partnership to address natural resource concerns and provide direct technical assistance, planning an additional 1,800 acres a year. 2) An additional 1,800 acres treated through agricultural drainage management practices by 2021. 3) Continuing to manage 100% of their poultry waste through animal waste management practices, as well as a 10% increase of the amount of livestock waste managed by 2021.	<b>Regionally</b>  <b>109,404 acres managed under a conservation plan</b>  <b>An additional 1,800 acres treated through Ag Drainage Management Practices</b>  <b>Animal Waste Management Systems:</b> <b>Poultry - 100% AU</b> <b>Livestock - 50% AU</b>
		<b>Phosphorus Management Tool</b>	MDA	1) Continue to fund and support the Manure Transport Program which provides financial assistance to farmers for transportation of manure to a producer or alternative use facility where it can be utilized in accordance with a Nutrient Management Plan.	<b>Manure Transport Funding Support</b>  <b>Animal Waste</b>

				<p>2) Continue to work with Delmarva Land to Litter Collaborative and other partners, identifying solutions to the challenge of managing litter in order to achieve our water quality goals.</p> <p>3) Continue to work within Soil Conservation Districts to identify and address resource concerns in the area of animal waste management as well as provide continued funding of storage facilities through MACS and EQIP, as highlighted in our Animal Waste Management System milestones.</p>	<b>Management System Milestones</b>
		<b>New CAFO Permit</b>	MDE	<p>1) Renew general CAFO permit by December 1, 2020.</p> <p>2) Prioritize the registry of the remaining 19 CAFOs that were missed in the 2017under 2019 general permit.</p> <p>3) Begin the renewal of facilities under the 2014 permit into the 2020 permit.</p>	<p><b>New Permit Issuance</b></p> <p><b>Registration of remaining 19 CAFOs not under 2014 permit</b></p> <p><b># of CAFOs under new permit</b></p>
	<b>Natural Filters</b>	<b>Expand existing tree planting programs</b>	DNR, MDE	<p>1) Work in 5 counties to increase the number of contracts on residential properties in the Lawn to Woodland program.</p> <p>2) Providing economic incentives through the "Marylanders Plant Trees" program which encourages citizens to plant individual trees on residential properties.</p> <p>3) Incentivize tree planting and forest buffers through updated Accounting Guidance for fifth-generation MS4 permits</p> <p>4) Continuing with the Healthy Forests, Healthy Waters initiative, prioritize riparian buffer plantings through decision criteria scoring</p>	<p><b>Maintain contract numbers in Lawn to Woodland program</b></p> <p><b>Maintain number of vouchers provided in Marylanders Plant Trees program</b></p> <p><b>300 acres planted via Healthy Forests, Healthy Waters</b></p>

		<b>Maryland Stream ReLeaf</b>	DNR	<p>1) Establish partnerships to identify focus areas and complementary programs that expand forest buffers</p> <p>2) Identify riparian forest buffer priority projects in the Lower Susquehanna watershed (Cecil and Harford Counties)</p>	<p><b>2 meetings per year to coordinate the partnership</b></p> <p><b>Develop riparian forest buffer restoration and conservation strategies for the program</b></p>
		<b>Incorporate Conservation Plus</b>	DNR, MDP	<p>For the first time, land conservation activities will count toward our Bay goals. This is due to the fact that the Chesapeake Bay Program (CBP) now considers land conservation a best management practice (BMP) similar to cover crops, septic system upgrades, wetlands restoration, and oyster aquaculture. Maryland is recognized as a leader in land conservation and, in order to take advantage of this new opportunity, will:</p> <p>1) sustain funding for state land conservation and preservation programs to support the expected 2019-2025 forecast. Maryland will continue to support the Maryland Agricultural Land Preservation Foundation, Rural Legacy Program, and Program Open Space State-side.</p> <p>2) Work with state agencies and local governments to apply state and local land conservation programs as appropriate to reduce the modelled impacts to the bay of future growth, maximize bay health restoration opportunities, and mitigate the impacts of climate change to our natural and built infrastructures.</p>	<p><b>Sustained levels of state funding for Program Open Space, Rural Legacy, and Maryland Agricultural Land Preservation Foundation.</b></p> <p><b>Refined targeting of Maryland's land conservation programs to address impacts from modelled future growth and climate change</b></p>
	<b>On-Site Disposal Systems</b>	<b>Septic Upgrades to BAT</b>	MDE	1) Continue to use the Bay Restoration Fund to upgrade septic systems to Best Available Technology (BAT) within the Critical Area	<b>Fund 1800 BAT upgrades in the critical area</b>
		<b>Regulations Amendment</b>	MDE	Amend regulations to include loading rate decreases when Best Available Technology (BAT) or Membrane Bioreactor (MBR) technology is utilized for systems that discharge <5,000 gallons per day.	<b>Regulation Amendment</b>



		<b>Bermed Infiltration Pond Removal</b>	MDE	<p>1) Identify priority systems 2) Remove discharge permit and connect to Wastewater facilities</p> <p>There are 8 large facilities and approximately 40 small facilities</p>	<b>Work on 8 large facilities as priority</b>
	<b>Stormwater</b>	<b>Stormwater Goals</b>	MDE	1) Before the next Phase I permit can be issued, permittees are required to perform a "Maximum Extent Practicable" (MEP) analysis of their programs to determine the BMP implementation level that they could reasonably achieve with available and future funding levels.	<b>MEP analyses for all Phase I MS4 permittees</b>
		<b>Implementation of SW goals</b>	MDE	<p>1) In the next Phase 1 MS4 permits, establish a requirement that milestones for implementation will be included in the jurisdictions' annual reports.</p> <p>2) Review all Phase I MS4 Annual Reports, any new MEP analyses, and fiscal analyses on an annual basis for ensuring MS4 permit compliance</p>	<p><b>Collection of milestones from Annual Reports</b></p> <p><b>Annual Report and FAP Review for all jurisdictions in 2021</b></p>
		<b>Urban Nutrient Management</b>	MDA	1) Continue to support and expand the management of nutrient applications on urban land	<p><b>285,000 acres managed under urban NM - Commercial Applicator</b></p> <p><b>466,000 acres managed under urban NM - DIY Applicator</b></p>
		<b>Industrial Stormwater Compliance</b>	MDE	<p>1) Continue to work with industrial sites to bring unpermitted sites into compliance</p> <p>2) Focus on areas with requests for residual designation</p>	<b>Report on number of sites brought into compliance</b>

		<p><b>Phase II MS4 Permit Compliance</b></p>	<p>MDE</p>	<p>1) The most recent Phase II MS4 permit was issued on October 31, 2018.                  2) MDE continues to provide extensive outreach and assistance with Phase II permittees so they understand permit conditions and obligations.                  3) Currently there are a total of 89 municipal, State, and federal permittees throughout Maryland which are submitting annual reports which MDE will review.                  4) In year one, MDE will assist with development of their permit baselines that will be used to drive implementation for the next permit iteration.                  5) Years 2 through 5 will be used to develop their BMP implementation plans to meet the third generation permit conditions.</p>	<p><b># of annual reports completed and reviewed by MDE</b></p> <p><b>Preliminary BMP Implementation goals</b></p>
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# 2020/2021 Milestones for WIP Support

		Milestone	Agency	Steps to Achieve MS Goals	Deliverable
<p>These milestones are related to programs that provide monetary, programmatic, or technical support to the State's WIP efforts.</p>	<p><b>Funding</b></p>	<p><b>Submit Annual Chesapeake Bay Funding (i.e., JCR) reports to MD Legislature</b></p>	<p>All MD Agencies</p>	<p>Finish internal agency review of funding programs for sufficiency and proper targeting, while also looking to achieve important co-benefits like climate mitigation and adaptation. Identify any gaps in funding needed to achieve 2025 Bay Restoration goals.</p>	<p><b>Submit reports to MD's Legislature by Dec. 1 of each year.</b></p>
		<p><b>Bay Restoration and Clean Water State Revolving Loan Funds</b></p>	<p>MDE</p>	<p>1) Continue to market the Bay Restoration Fund (BRF) and Clean Water State Revolving Fund (WQRLF) for stormwater management projects and MS4 implementation 2) Revise the Integrated Project Priority System (IPPS) for the BRF and WQRLF to improve the potential for high-benefit septic projects, stormwater management projects and MS4 implementation</p>	<p><b>Report number of projects funded through these grants</b>  <b>Document the new ranking priority metrics</b></p>
		<p><b>Chesapeake and Atlantic Coastal Bays Trust Fund</b></p>	<p>DNR</p>	<p>1) Cost-Effective Non-point Source Pollution Reduction projects: a) Maintain full funding levels b) Simplify the application process through a single point-of-entry grants gateway c) Explore opportunities for increased funding through private capital d) Prioritize projects that foster healthy ecosystems, communities, and resilient economies 2) Natural Filters Program projects: a) Maintain existing funding levels to implement natural filter BMPs on state and public lands. Natural filters practices improve both water quality and habitat by protecting, enhancing and restoring riparian buffers, wetlands, streams and living shorelines.</p>	<p><b>Report number of projects funded, and associated pounds of nutrients and sediment reduced through these grants</b></p>

		<b>Local Watershed Implementation Plan Funding</b>	DNR	<p>1) Continue to update or improve the process and ranking criteria to identify and provide funding to those local communities with the most cost effective projects for Bay restoration as needed</p> <p>2) Promote program through outreach to local communities and local jurisdictions</p>	<b>Sustained levels of state funding to support local watershed implementation planning</b>
	<b>Modeling &amp; Research</b>	<b>Urban Development Growth and Land Preservation Accounting</b>	MDP	<p>1) Update Chesapeake Bay Modeling tools with the State's own projections of growth in the urban sector</p> <p>2) Provide technical support to ensure land use data and Chesapeake Bay land Change model forecasts are accurate</p> <p>3) Explore the use of the MD Dept. of Planning's Growth Simulation Model as an alternative for CBP modeling tools to account for 2025 projected growth</p> <p>4) Continue to update and maintain Maryland's land preservation datasets to inform CBP modeling tools.</p>	<b>Provide Growth numbers and other documentation to CBPO</b>
		<b>Additional Geographic Targeting Tools</b>	All agencies	Monitor the development and explore the application of BMP targeting tools to improve the cost effective implementation of Bay restoration resources in Maryland	<b>Presentation to Maryland Bay Cabinet from Maryland Bay Workgroup</b>
		<b>Ecological Effects of Sea Level Rise</b>	DNR	<p>1) Coordinate with higher education and other partners to :</p> <p>a) Enhance models that quantify wave attenuation and the flood reduction benefits of nature-based features</p> <p>b) Use this information to inform conservation and restoration priorities for Maryland coastlines</p>	<b>Quantify the protective services of marsh, seagrass, and living shorelines under current and future sea level conditions</b>

		<p><b>Incorporating Air Emission Reduction Strategies</b></p>	<p>MDE</p>	<p>1) Help quantify the water quality benefits of practices performed with VW settlement funds 2) Work to convene an expert panel to help quantify additional water quality impacts of future air emissions reductions strategies 3) Revise Quality Assurance Project Plans (QAPPs) to account for air emissions reduction BMPs</p>	<p><b>Provide Information to EPA on VW settlement BMPs</b>  <b>Create accounting system to track air emission BMPs</b></p>
		<p><b>Chesapeake &amp; Atlantic Coastal Bays Trust Fund Projects</b></p>	<p>DNR</p>	<p>1) Strategic &amp; Targeted Monitoring: a) Continue to monitor projects implemented through the Trust Fund for efficacy of implementation b) Continue to conduct long-term monitoring of BMPs to assess performance and alignment with state investment goals 2) Innovative Technology Fund: a) Develop new non-point source BMPs for nitrogen, phosphorus, and sediment reduction b) Expand partnerships with other programs that develop emerging technologies c) Ensure new practices are reviewed by the Chesapeake Bay Partnership, or other appropriate avenues</p>	<p><b>Monitor Trust Fund BMPs to ensure they provide the stated benefit</b>  <b>Annually fund two research and development projects</b>  <b>Invest in one commercial project</b></p>
		<p><b>Beneficial Use of Dredge Material</b></p>	<p>DNR</p>	<p>1) Use the new BUILD tool to synchronize the beneficial use of dredged material in restoration projects that reduce flooding, stabilize shorelines and mitigate storm impacts 2) Incorporate research from the Thin-Layer Sediment Placement NERRs Grant to exam the effectiveness of using thin-layer placement of dredged sediment on tidal marshes as part of a marsh adaptation strategy 3) Incorporate the Marsh Equilibrium Model (MEM) to evaluate suitability for the use of Thin-Layer Sediment Placement 4) Use the results of this process to promote waterway improvement and coastal resiliency in a cost effective manner</p>	<p><b>Promote the utilization of dredge material for beneficial uses (BU) and implement projects in targeted sites</b></p>

	<b>Technical Assistance</b>	<b>Watershed Assistance Collaborative</b>	DNR, MDE	1) Watershed Assistance Collaborative (WAC): a) Continue to provide dedicated staff and funding to support the program; b) Expand the program's ability to serve additional communities and improve outreach	<b>Fund and manage two Watershed Specialists' outreach; collaborate with three additional Specialists</b>
		<b>Technical Support through Restoration Specialists</b>	DNR	1) 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 the latest science and techniques. 2) Advance restoration science, outcomes, and cost-efficiency within the Watershed Assistance Grant the Trust Fund local solicitation and the Natural Filters Program	<b>Provide continued hands-on landscape level technical assistance to local governments and non-governmental organizations implementing restoration projects</b>
		<b>BMP Calculator</b>	DNR	1) Operate and maintain a publically available online application to estimate nutrient and sediment reductions from site level projects. 2) Integrate updates associated with Chesapeake Assessment Scenario Tool. 3) Add new BMPs as they are approved	<b>Operate and maintain FieldDoc.com</b>
		<b>Septic Connections</b>	MDE, MDP	Provide technical and policy assistance to local governments to facilitate connections of septic tanks to WWTPs	<b>Report number of septic connected</b>
		<b>Stormwater Meetings</b>	MDE	MDE will meet with stormwater permittees on a quarterly basis to discuss: a) WIP Expectations b) Emerging Pollutants c) Local Impairments	<b>Quarterly meetings at MDE with Stormwater permittees</b>
		<b>MD Technical Assistance Provider Survey</b>	MDE	Survey organizations providing technical assistance with Chesapeake Bay restoration in MD. Include questions about audience served, types of assistance provided, and unmet needs that represent barriers to achieving restoration goals. Results will be used to identify opportunities for synergy and collaboration, and to prioritize gaps for further exploration.	<b>Summary of survey results</b>

	<b>Developing Partnerships</b>	<b>DNR-MDOT Master Memorandum of Understanding</b>	DNR/MDOT	1) Implement a partnership to maximize public benefit and efficient use of funding to support common objectives, including (but not limited to), Chesapeake Bay watershed implementation plan, environmental compliance, stewardship and sustainability activities.	<b>Develop a Memorandum of Understanding between DNR and MDOT that would cover all of MDOT's transportation business units.</b>
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## 2020/2021 Climate Mitigation and Resiliency Milestones

		Milestone	Agency	Steps to Achieve MS Goals	Deliverable
<b>Milestones Identified in this section are driven by their ability to assist Maryland with</b>		<b>Integrating Climate into Phase III WIP Implementation</b>	MDE	1) Determine how storm precipitation events are estimated to change in the future and affect BMP pollutant removal effectiveness. 2) Beginning in September 2021, Maryland's 2022-2023 two-year milestones will reflect these changes.	<b>Account for additional climate-induced loads and improved understanding of BMPs</b>

<b>increasing its resiliency to changes in Climate.</b>	<b>Coast Smart Construction Criteria</b>	DNR	1) Implement the 2019 Coast Smart Construction legislation that applies design and siting criteria to certain state and local capital projects. 2) Protect and maintain ecological features that buffer projects from the impacts of future sea level rise, coastal flooding, or storm surge	<b>Update siting and design criteria that maximizes resiliency benefits for the construction or reconstruction of certain state and local capital projects.</b>
	<b>Climate Mitigation and Adaptation Synergies</b>	DNR	Work with higher education institutions and stakeholders to develop indicators of climate mitigation and resiliency progress. Use developed and existing indicators to communicate combined progress on both climate mitigation / resiliency and bay health.	<b>Develop and publish a suite of indicators to communicate and measure progress on climate adaptation across Maryland including those relevant to Maryland's Bay Health goals.</b>
	<b>Chesapeake Bay Sentinel Site Cooperative</b>	DNR	The Chesapeake Bay Sentinel Site Cooperative (CBSSC) is a group of ecosystem-based study sites across the Chesapeake Bay that: 1) work together to measure the impacts of sea level rise in the Bay; 2) Work with partners to apply scientific findings produced at sentinel sites to help communities prepare for coastal flooding and other effects of changing climate conditions; 3) Work in partnership with coastal managers, decision makers, and community liaisons. Building off the discussion at the 2019 Marsh Resilience Summit, the CBSSC is seeking to advance the priorities identified at the summit including trend analysis of marsh elevation.	<b>Use information to inform Maryland's implementation strategies that combat the nutrient and sediment impacts of climate change.</b>



		<p><b>Local Engagement and Education: Maryland Climate Leadership Academy</b></p>	<p>DNR</p>	<p>The Maryland Climate Leadership Academy will advance the capacity of state and local government agencies, infrastructure organizations and businesses to develop and implement sound climate change initiatives thus ensuring current and future public health, security and economic prosperity. The Academy will continue to support the work of the Maryland Climate Change Commission and State of Maryland in their efforts to address climate change and meet goals related to the mitigation of and adaptation to the effects of climate change in Maryland.</p>	<p><b>Host three additional cohorts of the Certified Climate Change Professional (CCP) training program.</b></p> <p><b>Develop and implement sector specific training for local elected leaders, planners and others as identified.</b></p>
		<p><b>Water Reuse</b></p>	<p>MDE</p>	<p>Begin implementing one or more water reuse pilot projects with local jurisdictions to address water supply shortages while exploring and accounting for reduced nutrient discharges to the Chesapeake Bay</p>	<p><b>One or more pilot studies under development.</b></p>
		<p><b>Hazard Mitigation Watershed Planning</b></p>	<p>MDE</p>	<p>1) Begin the process of integrating hazard mitigation planning into local TMDL watershed implementation plans 2) Work with local officials to find ways to use BMPs to lower Flood Insurance rates for our citizens</p>	<p><b>Two local watershed plans with hazard mitigation incorporated</b></p>
		<p><b>Water Quality and Climate Change Resiliency Portfolio</b></p>	<p>DNR/MD E</p>	<p>Work with existing stakeholders in the climate space (i.e, Maryland's Climate Change Commission and Adaptation and Resiliency Work Group) to identify a pipeline of projects that prepares Maryland and its communities to build climate resilience by taking advantage of existing and emerging funding opportunities that promote the use of natural infrastructure. Explore creation of targeting tools to identify priority project areas or communities for resiliency action.</p>	<p><b>A list of priority projects and/or targeting framework for resiliency focus.</b></p>

		<p><b>Living Shorelines</b></p>	<p>MDE/ DNR</p>	<ol style="list-style-type: none"> <li>1) Identify actions which improve the timeliness and consistency of state and federal regulatory decision making for living shoreline permits.</li> <li>2) Evaluate social marketing behavior change study results for potential use in MDE's permitting program.</li> <li>3) Complete enhanced shoreline suitability analyses of four counties for using LS practices.</li> <li>4) Improve data capture and analysis methods to advance the LS goal and its evaluation.</li> <li>5) Develop a rapid assessment tool to evaluate installed LS projects.</li> <li>6) Identify ways to promote climate resilience in proposed shoreline stability designs submitted for MDE approval.</li> <li>7) Conduct an LS Summit with stakeholders.</li> </ol>	<p><b>Living Shorelines (LS):</b> <b>Increase the percentage of shoreline stabilization projects that use LS practices and develop ways to evaluate and improve techniques in the face of climate change.</b></p>
		<p><b>Resiliency through Restoration Initiative</b></p>	<p>DNR</p>	<ol style="list-style-type: none"> <li>1) Demonstrate how nature-based features can enhance community resilience to climate change impacts:             <ol style="list-style-type: none"> <li>a) Target projects which reduce climate change risk to our citizens</li> <li>b) Design and implement up to 15 nature-based community resiliency projects</li> <li>c) Provide funding, training and technical assistance that will assist practitioners.</li> <li>d) Monitor projects to evaluate success</li> </ol> </li> </ol>	<p><b>Complete 15 nature-based community resilience projects</b></p>

# Additional 2020/2021 Milestones for Maryland

		Milestone	Agency	Steps to Achieve MS Goals	Deliverable
Additional State Priorities represent items that contribute to the Phase III WIP efforts, but include other tangible co-benefits.	Stormwater	Stormwater Permit and PCBs mitigation for construction activities	MDE	1) Issue the construction Stormwater permit in first half of 2020, and next version of industrial SW late 2020 or early 2021 2) Include Industrial BMP Guidance for PCB and other toxic pollutants.	Issuance of the new construction SW permit  Target removal of PCB as part of Construction and Industrial SW permits.
		Pesticides	MDE	1) Issue 17-PE permit renewal mid-2020 2) Audit larger pesticide applicator Pesticide Management Plans, once the renewal is issued	Report on the number of audits
	Protection	GAP Analysis	MDE	Complete 1st step of GAP analysis through literature review and basic research to identify existing guidance documentation and processes that can support high quality/high value streams	Summary report on the status of high quality/high value streams protection guidance  Guidance reference compendium

		<b>Maryland Healthy Watersheds Assessment</b>	MDE	Complete the Maryland Healthy Watersheds Assessment using a \$55,000 grant awarded to the Maintaining Healthy Watershed Goal Implementation Team by the Chesapeake Bay Trust. The project seeks to create a relative state watershed health baseline, on the segment-catchment scale, based on metrics known to influence watershed health, as well as identify vulnerability indicators.	<b>Integrate MDHWQ into MD IMAP</b>  <b>Geodatabase</b>  <b>Final Report</b>  <b>SOPs/Protocol Documentation</b>
		<b>Combined Program Review</b>	MDE	Pilot integration of the Antidegradation Tier II Environmental Review with the Department of Natural Resource's Power Plant Review Program.	<b>Custom forms, templates, and other review documentation for th PPRP review process</b>  <b>SOPs for special condition development and implementation guidance</b>
	<b>Trading</b>	<b>Water Quality Trading Program Enhancement</b>	MDE, MDA	1) Create new tools to encourage participation in the market and to make the process easier to understand 2) Provide new guidance documents that help participants better understand the process for generating and transferring credits 3) Work to increase the quantity of credit buyers in the program through encouragement of participation by non-traditional partners 4) Enhancement and consolidation of the MDE Water Quality Trading Register and the Chesapeake Bay Nutrient Trading Registry 5) Certify trades from non-MS4 purchasers	<b>6 Guidance Documents</b>  <b>New Web App for mapping</b>  <b>Consolidation and update of the Chesapeake Bay Nutrient Trading Registry tool</b>  <b>Certified trade to non-MS4 purchaser</b>

		<b>Oyster Aquaculture Harvest Verification Program</b>	MDE, DNR	1) Finalize and publish the forms Aquaculture growers need to participate in the program 2) Finalize and publish guidance on the process for harvest verification 3) Register first trade of nutrient credits derived from Oyster Aquaculture 4) Register first trade of nutrient credits derived from Agriculture	<b>Implement an oyster harvest verification process to allow participation in the WQ Trading Program</b>
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