

Caroline County 2014 - 2015 Programmatic Two-Year Milestones

Target Date	Milestone	Deliverable	Lead Agency	Comments/Status Updates
Urban Stormwater				
2014-2015	Assess and prioritize County road ditches for BMP projects.	Final report and GIS inventory of drainage and surface conditions of County unpaved roads.	County Planning and DPW	Study of County Unpaved Roads completed June 2014, including inventory of roads, review of drainage and surface conditions and water quality impacts. Priority needs and candidate project sites identified, as were potential programs to develop locally-sourced recycled materials for application on unpaved road surfaces, to reduce sediment loss. Study to be expanded to include specific implementation plans for BMPs.
2014-2016	Plan, design and implement BMPs on unpaved County roads.	Installation of surface and/or drainage BMPs on 1-3 unpaved road segments.	County Planning and DPW	Obtain funding for planning and design of 1-3 BMP implementation projects on unpaved County roads. Follow-up with funding for implementation of project(s).
2014-2015	Plan, design and implement stormwater BMPs on publically-owned, high-intensity urban land in Denton.	Installation of SWM retrofit BMP at County DPW yard on Wilmuth Street in Denton.	County Planning and DPW	County obtained funding for design and construction of bioretention BMP implementation in 2013. Preliminary design complete, final design and construction to be complete by 2015.
2014-2016	Identify additional publically-owned buildings and properties suitable for BMP demonstration/education project sites.	Installation of permeable paving at County Department of Emergency Services facility.	County Planning and DES	County obtained funding for design and construction of permeable pavement entrance and parking areas at new DES facility. Construction to start late 2015, end mid 2015. County pursuing funding for vacuum sweeper to enable proper maintenance at this and future permeable paving sites.
	Continue to identify and build inventory of potential stormwater BMP projects in County and municipalities,	Planning, design and implementation of SWM BMP projects in Marydel,	County Planning	MD SHA design of Marydel street and sidewalk retrofits underway, construction anticipated in Spring 2015. Continue grant solicitation for

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	with priority areas/projects and preliminary design concepts.	Federalburg and small community outside of Ridgely. Continue tree-planting projects in County and municipal parks and open spaces.		<p>additional SWM retrofit projects in Marydel. Working with DNR to develop bioretention and wetlands projects in conjunction with trail development at new Marydel Community Park.</p> <p>County convened first planning meeting for development of Nanticoke Watershed 319 Watershed Plan in June 2014. County built partnership with Federalburg, Dorchester County, Nanticoke WSA and UMD Sea Grant to develop preliminary water quality goals and implementation strategies. Continuing to develop goals and strategies, will seek funding for full 319 Plan development in 2015.</p> <p>Continue Trust Fund grant riparian tree planting projects at County and town parks (2 completed, 7 to be implemented in 2015).</p>
	Assess feasibility of initiating a bi-monthly street sweeping/storm drain vacuuming program in two or more municipalities utilizing a shared street sweeper and implemented in conjunction with storm drain cleanout and maintenance program.	Purchase of vacuum-sweeper (\$100,000-200,000).	County Planning	USDA grant/load financing program for street sweepers no longer available. County "repackaging" its request and pursuing other funding sources for sweeper/vacuum for use in street-stormdrain cleaning and for maintenance of permeable pavement sites.
2014-2016	Develop County-owned recycling facility to create driving surface aggregate and road bed fill for unpaved roads from recycled and locally-sourced materials.	Purchase of recycled glass pulverizer system and/or used tire baler. (\$100,000-\$300,000)	County Planning and DPW	As part of the report on County unpaved roads, staff researched the use of recycled materials as road bed fill and driving surface aggregate. Pending a feasibility study, the County will pursue resources to obtain or produce affordable materials to upgrade unpaved roads

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				and reduce sediment loss.
2014-2015	Funding for full-time County staff position to manage and report County 319(h) Watershed Plan/P2 WIP implementation projects.	Capacity to meet County 319(h) Plan goals and State P2 WIP targets.	County Planning	Through MDE 319(h) grant program support, County planning staff continues to successfully implement Upper Choptank Watershed 319(h) Watershed Plan goals, which help achieve State P2 WIP targets. Continued funding support will ensure continued implementation of watershed goals and achievement of WIP targets.
Wastewater				
2014-2017	Upgrade or replace Greensboro's aging secondary treatment plant (c. 1964) with ENR treatment technology.	Construction of new ENR wastewater treatment plant in town of Greensboro. Reduction of approx. 5,000 lbs TN annually to Choptank River	Greensboro and County	Engineering and design of ENR WWTP to serve towns of Greensboro and Goldsboro complete. MDE draft permit under review. Construction scheduled to begin early 2015. Design allows for expansion of plant to include remaining 3 north County towns pending availability of State and Federal grant funding. County will provide assistance as needed to Towns of Marydel, Henderson and Templeville which are in various stages of studying feasibility of small WWTP to serve one or more towns.
2014-2017	Construct treatment plant to serve north County towns with failing septic systems.	Construction of new ENR wastewater treatment plant(s) in north County town(s) or connection of town(s) to Greensboro ENR wwtp.	Towns and County	
2014-2015	Assist Town of Marydel with development of feasibility study to construct BNR or ENR sewer system.	Marydel Water and Sewer Service Feasibility Study	Marydel	CDBG-funded project underway to study the development of water and sewer services in Marydel, including the feasibility of connecting the town to the new ENR WWTP in Greensboro. New BNR or ENR sewer system would replace almost 200 aging and failing septic systems.
2014	Implement final CSS separation project in town of Federalsburg.	Separation of combined stormwater/sewer lines on Railroad Avenue.	Federalsburg	Series of CSS separation projects started in 2010 and included separation of stormwater and sewer lines on Academy, Central and Maple avenues. Railroad Avenue is final project.
Septics				
2014-2016	Develop methods for testing	Field tests of alternative and	County and	NFWF grant project to field test nutrient uptake

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	alternative methods of reducing nitrogen load from septic systems.	innovative septic BMPs and development of permanent septic BMP test center. Potential 50%+ reduction in TN loads from septics and significant cost savings (compared to BAT systems).	MD Ag Extension and MDE	in switchgrass planted over drainfields underway. County developed work program and is seeking funding for construction of permanent septic BMP test center at new Greensboro ENR WWTP. Planned BMP tests include wood chip barriers, alternative filter media, and continued switchgrass monitoring.
2014-2017	Decommission septic systems in and around the town of Goldsboro and connect properties to new Greensboro ENR WWTP.	Decommissioning of 135 septic systems and connection of properties to new Greensboro ENR WWTP.	County Dept Environmental Health, Greensboro, Goldsboro and County Planning	Property owners in process of submitting applications for BRF funding to cover costs of decommissioning septics and connecting to new plant, construction slated to be complete in 2017.
2014-2015	Assist Town of Marydel with development of water and sewer feasibility study to address failing septic systems in the Town.	Marydel Water and Sewer Service Feasibility Study, future decommissioning of approx. 150 septic systems and connection to BNR or ENR WWTP.	Marydel	Marydel received a CDBG grant to complete a feasibility study the development of water and sewer services in Marydel. The study is being undertaken by a consulting firm and will compare the feasibility of alternative solutions to the feasibility of connecting the town to the new ENR WWTP in Greensboro.
2014-2015	Assist towns of Henderson and Templeville with water/sewer feasibility studies to address failing septic systems in the towns.	Preliminary planning and funding applications for consultant studies of water and/or sewer service in Henderson and Templeville, future decommissioning of approx. 80 septic systems and connection to BNR or ENR WWTP.	Henderson Templeville County	County will provide assistance as needed to Towns of Henderson and Templeville, to study feasibility of small WWTP to serve one or more north County towns.