

**Anne Arundel County 2016 – 2017 Programmatic Two-Year Milestones
January 2016 – December 2017**

(Note: New Milestones are highlighted in green)

Target Date	Milestone	Deliverable	Lead Agency	Comments
Urban Stormwater				
On-going	Implement the County's Watershed Protection and Restoration Program (WPRP)	Fully staffed and implemented program	DPW	Previous 2014-2015 milestone
12/2016	Explore opportunity to appropriate capital funding of restoration projects on a watershed basis to provide flexibility in implementation.	Watershed based capital budget	DPW Budget Admin	New milestone
12/2016	Explore creating a "performance based" project in the FY17 budget to enhance private sector engagement in the County's clean water efforts	New B-Class project in capital budget	DPW	New milestone
On-going	Broaden Public Awareness and understanding of the Stormwater Remediation Fee and WPRP	Public Presentations. Outreach and education documents. Enhanced program web site.	DPW	Previous 2014-2015 milestone
On-going	Investigate and establish public/private partnerships to leverage funding and implement WIP restoration projects	Established partnerships that facilitate and implement restoration projects	DPW	Previous 2014-2015 milestone
12/2017	Refine the County's Stormwater BMP Database	Refined Database	DPW	Previous 2014-2015 milestone

Target Date	Milestone	Deliverable	Lead Agency	Comments
On-going	Identify, prioritize and establish a schedule for joint SHA/AACo. implementation projects	Prioritized list of WIP restoration projects and associated map identifying SHA projects, AACo projects, and location of joint implementation projects. List and map accompanied by a coordinated implementation schedule.	DPW	Previous 2014-2015 milestone
On-going	Improve Federal, State and County permitting process for restoration projects	A permitting process that reduces the amount of time to secure Federal, State and County permits for restoration projects.	DPW	Previous 2014-2015 milestone
On-going	Require new development to provide an adequate, stable outfall for stormwater discharges from their site into receiving waterways.	Continue to implement adequacy of public facilities regulations as they pertain to outfall adequacy.	OPZ	Milestone added in 2014-2015
12/2017	Work with the Bureau of Highways to determine the feasibility of utilizing pervious concrete on new impervious area	Draft standards	DPW	New milestone
12/2017	Work with the Bureau of Highways to determine the feasibility of installing dry well/infiltration basins in manhole footprints	Draft standards	DPW	New milestone
12/2015	Examine the County's current street-sweeping program to determine opportunities for expanding the current program to allow monthly sweeping of all curbed roads.	Targeted street sweeping program	DPW	Previous 2014-2015 milestone

Target Date	Milestone	Deliverable	Lead Agency	Comments
12/2015	Examine the County's current inlet cleaning program to determine opportunities for expanding the current program to allow routine cleaning of storm inlets.	Targeted inlet cleaning program	DPW	Previous 2014-2015 milestone
Ongoing	Coordinate the Bureau of Highways (BOH) rehabilitation projects with the Bureau of Engineers (BOE) WIP implementation projects to maximize opportunity for load reduction.	Convert Infrastructure Management Division's culvert and storm drain rehab data base to a geospatially referenced map.	DPW	Previous 2014-2015 milestone
12/2015	Complete hiring staff authorized in the FY14 and proposed in the FY15 budget to augment existing staff to address culvert and closed storm drain issues and closed storm drain maintenance (e.g. inlet cleaning).	Hire 10 positions in the Bureau of Highways	DPW	Previous 2014-2015 milestone
12/2017	Refine list of potential reforestation sites to develop a geo-referenced database of publically owned sites suitable for planting.	Database of viable properties for tree planting	DPW I&P	New milestone
12/2017	Review implementation of restoration projects to determine County's progress towards achieving the 70% stormwater load reduction goal by 2017.	Midterm evaluation	DPW	New milestone
On-going	Engage Watershed Organizations in WIP implementation	Achieve engagement of and coordinate watershed organizations within the County in watershed implementation projects.	DPW	Previous 2014-2015 milestone

Target Date	Milestone	Deliverable	Lead Agency	Comments
On-going	Work in collaboration with watershed organizations to leverage and secure grant funding for implementation projects.	Letters of Support for grants to local watershed organizations that provide funding for restoration projects. In kind match on projects that achieve load reduction.	DPW	Previous 2014-2015 milestone
On-going	Collaborate with the Anne Arundel Watershed Stewards Academy (WSA) to Train community leaders to coordinate residential restoration and stormwater outreach	150 hours of training to certify 50 master Watershed Stewards and provide continuing education to 100 additional Stewards. Convene two annual conferences to network stormwater professionals, government officials and Stewards. Provide support services and networking for 150 Stewards.	DPW	Previous 2014-2015 milestone. Deliverable updated to reflect 2016-2017 goal
On-going	The Watershed Stewards Academy will support community leaders to coordinate residential restoration and stormwater outreach.	200 rain barrels installed. 15,000 native plants and trees planted. 500,000 square feet of new residential and community restoration installed. Direct outreach and education on stormwater awareness topics to over 20,000 citizens. Tracking, maintenance and /or renovation of all Steward projects over three years old-except rain barrels.	DPW	Previous 2014-2015 milestone. Deliverable updated to reflect 2016-2017 goal

Target Date	Milestone	Deliverable	Lead Agency	Comments
12/2015	Develop a Clean Water Communities Certification. Work with WSA to explore ways that the WPRP can incentivize communities to achieve Clean Water Communities Certification. Augment the online resources provided by the DPW WPRP to provide greater connection between citizens, the WPRP and action to reduce stormwater originating from residential property.	Pilot the Clean Water Communities certification in two communities including the installation of 28 homeowner BMPs and promotion of two behavior change campaigns to reduce polluting behaviors in pilot communities. Expanded website and mapping resources to connect citizens with the WPRP and to incentives for individual actions to reduce stormwater.	DPW	Previous 2014-2015 milestone. Completed
12/2017	Gather baseline information on knowledge of stormwater possessed by residents in Anne Arundel County	In order to determine the type and extent of education and outreach that needs to be carried out, and to evaluate the success of outreach programs it is important to establish a baseline from which progress can be determined.	DPW	New milestone
12/2017	Raise awareness of healthy practices and stewardship throughout the County	Targeted outreach and education materials: e.g. surveys, social media, print materials.	DPW	New milestone

Target Date	Milestone	Deliverable	Lead Agency	Comments
12/2017	Explore collaborative partnerships that can benefit the overall watershed	In cooperation with County agencies, local watershed groups, and other community organizations develop educational strategies consistent with the Chesapeake Bay TMDL priorities to increase awareness of contaminant sources and BMPs to limit contaminants from reaching County waterways and the Chesapeake Bay. This could include supporting projects that build on awareness and knowledge and connect back to the community	DPW	New milestone
12/2017	Develop and implement a training workshop for community stormwater BMP maintenance.	Training workshop	DPW	New milestone
12/2016	Increase existing outreach and education initiatives through the implementation of a County-wide pet waste campaign	Fact sheets. Informational material.	DPW	New milestone
12/2017	In addition to County Parks that have already installed pet waste stations, explore opportunities to install pet waste stations on other County properties.	Installation of additional pet waste stations	DPW Central Services	New milestone
12/2017	Determine the effectiveness of the Countywide pet waste campaign through monitoring and research to verify water quality benefits of this BMP.	Report that includes findings and adaptive management strategies for achieving expected load reductions	DPW	New milestone

Target Date	Milestone	Deliverable	Lead Agency	Comments
12/2017	Explore strategies that result in increased management of sewage discharges from boats.	Expanded marina outreach programs and support for the State's Clean Marina Program	DPW	New milestone
12/2017	Collaborate with the Anne Arundel Watershed Stewards Academy (WSA) to create and implement a new communication and technology strategy for Certified Stewards to report their stewardship activities and those of their communities so that the metrics collected accurately reflect the pollutant loads reduced through residential scale BMPs.	Increased reporting of Steward projects and a more robust measurement of projects implemented as a result of Steward presence in a community.	DPW	New milestone
12/2017	Support the Anne Arundel Watershed Stewards Academy in developing and implementing educational programs for community leaders without the time or ability to attend the full Master Steward Certification Course. This training may be called Steward Lite.	Fifty (50) hours of training provided to approximately thirty (30) community leaders.	DPW	New milestone
Wastewater Source Sector				
12/2017	Complete construction of all new ENR facilities and optimize performance.	Conditional acceptance for contracts	DPW	Previous 2014-2015 milestone revised to reflect 2016-2017 goals
1/2017	Maintain progress on Cox Creek WRF-ENR construction project	On-going construction work	DPW	Previous 2014-2015 milestone revised to reflect 2016-2017 goals
12/2016	Explore utilizing performance below pollution load caps as a way to extend the County's compliance schedule for other pollution sectors	Nutrient trading framework	DPW	Milestone added in 2014-2015

Target Date	Milestone	Deliverable	Lead Agency	Comments
Septic Source Sector				
	<u>Large CIP Program</u>			
12/2017	Determine long term funding methods to pay for connection of existing OSDS to public sewer and cluster treatment systems.	Financial Plan for implementing program	DPW	Previous 2014-2015 milestone
12/2018	Develop mechanisms and policies to achieve funding.	Formal establishment of revised rates or fee structures via legislative action by County Council	Budget Office	Previous 2014-2015 milestone
12/2018	Modify the County Code and administrative procedures as needed to provide authorization for the program	Legislative code changes	Law Office	Previous 2014-2015 milestone
12/2014	Develop a tracking and reporting system to follow the progress of OSDS conversion and upgrades	Reporting forms and transmittals. Database sharing as needed.	DPW	Previous 2014-2015 milestone Complete
12/2017	Determine staffing requirements and pursue position authorization within the Dept. of Public Work, Dept. of Inspections & Permits, and Office of Planning & Zoning to support the expected workload.	Requests for position authorization	Multiple Agencies	Previous 2014-2015 milestone
12/2017	Develop scope descriptions and tasks for workload to be delegated using staff augmentation contracts.	Procurement of contract(s) for management of specific portions of the program.	DPW	Previous 2014-2015 milestone

Target Date	Milestone	Deliverable	Lead Agency	Comments
12/2017	Review and clarify legal and administrative policies to connect existing OSDS to public sewer and cluster treatment systems.	Internal legal brief(s)	Law Office	Previous 2014-2015 milestone
12/2017	Review and clarify permitting requirements to connect existing OSDS to public sewer and cluster treatment systems.	Internal memorandum	DPW OPZ	Previous 2014-2015 milestone
4/2018	Develop Countywide Public Relations Strategy.	Written strategy for engaging the public and providing timely and accurate information.	DPW	Previous 2014-2015 milestone
12/2019	Develop new requirements and boundaries for the proposed Cluster Treatment Areas for incorporation into the Water and Sewer Master Plan.	Updated Master Plan areas as needed.	DPW OPZ	Previous 2014-2015 milestone
12/2018	Pursue new legislation that authorizes mandatory participation by residents and businesses on septic systems for connection to the public sewer system where recommended to achieve TN pollutant reduction.	Proposed legislation as needed	Law Office	Previous 2014-2015 milestone
12/2017	The Dept. of Public Works and the Health Department will work collaboratively to develop technical standards for new cluster systems capable of nitrogen removal.	Standard specifications and details as needed	DPW	Previous 2014-2015 milestone

Target Date	Milestone	Deliverable	Lead Agency	Comments
12/2016	Pursue new State legislation to allow communities to use a Special Community Benefit District (SCBD) to cover community costs for septic to sewer conversions	Proposed legislation as needed	County Administration	Previous 2014-2015 milestone
	<u>Small CIP Program</u>			
12/2017	Determine whether the program will be voluntary-only or a combination of mandatory and voluntary, and develop the necessary administrative procedures or legislation.	Small CIP Program Implementation Plan	DPW Law Office	Previous 2014-2015 milestone
12/2017	Determine how costs will be shared by existing homeowners.	Small CIP Program Implementation Plan	DPW –	Previous 2014-2015 milestone
N/A	Consider the issue of equity between homeowners connected through the large CIP Program and those connected through the small CIP Program. In general, connections through the Small CIP Program are expected to be lower cost projects.	N/A – will be incorporated into the program fee structure	DPW –	Previous 2014-2015 milestone
12/2017	Explore incentive systems for individual homeowners to increase interest in voluntary participation.	Summarize options in internal memorandum	Various	Previous 2014-2015 milestone

Target Date	Milestone	Deliverable	Lead Agency	Comments
12/2017	Develop a system in coordination with the Department of Health for identifying and prioritizing areas to determine upcoming projects to be performed each year.	Finalized Prioritization System	DPW	Previous 2014-2015 milestone
N/A	Develop a public outreach program to notify neighborhoods of upcoming projects.	N/A – Will be incorporated into the public relations strategy	DPW	Previous 2014-2015 milestone
12/2017	Determine an annual funding level for the program implementation.	Set yearly appropriation level for contract(s).	DPW	Previous 2014-2015 milestone
12/2017	Determine staffing requirements within the Dept. of Public Works and the Health Dept. to support the program.	Requests for positions where determined necessary	Various	Previous 2014-2015 milestone
	<u>Private Sector Facilitated Upgrades</u>			
12/2017	Develop new policies and procedures to minimize construction of new systems in management areas designated as high priority for conversion to point source treatment. These new policies will be developed in accordance with Senate Bill 236 (Sustainable Growth and Agricultural Preservation Act of 2012	Published guidance regarding requirements for new development in accordance with Growth Tiers.	DPW OPZ	Previous 2014-2015 milestone
12/2017	Develop new policies and procedures to minimize construction of new systems in management areas designated as high priority for conversion to point source treatment. These new policies will be developed in accordance with Senate Bill 236 (Sustainable Growth and Agricultural Preservation Act of 2012	Published guidance regarding requirements for new development in accordance with Growth Tiers.	DPW OPZ	Previous 2014-2015 milestone

Target Date	Milestone	Deliverable	Lead Agency	Comments
	<u>OSDS Nitrogen Reducing Units</u>			
On-going	Provide educational materials to the public on septic system maintenance	Educational materials; DVDs, septic system records, scheduled maintenance folders and brochures.	Health Dept.	Previous 2014-2015 milestone
On-going	Enforcement of Property Maintenance Code requirements	Enforcement of identified Code violations involving improper maintenance of septic systems.	Health Dept.	Previous 2014-2015 milestone
On-going	Maintain accurate inventory of developed accounts served by on-site disposal systems.	Accounts with accurate septic system information.	Health Dept.	Previous 2014-2015 milestone
On-going	Work with private sector firms to encourage innovative and lower cost solutions to on-site septic treatment.	Coordinate with MDE and local agencies to make Anne Arundel County a testing ground for innovative OSDS technologies	DPW/ Health Dept.	Milestone added in 2014-2015

ANNE ARUNDEL COUNTY GOVERNEMENT

Chesapeake Bay TMDL

2 Year Implementation Milestones

Submitted by:
Anne Arundel County
Department of Public Works
Annapolis, MD

July 1, 2015 – June 30, 2017

MILESTONES

WASTEWATER SOURCE SECTOR

2016 – 2017 IMPLEMENTATION MILESTONES

WASTEWATER SOURCE SECTOR

Major Municipal WWTPs (ENR Upgrades)

2016 – 2017 Implementation Milestones

ENR Project Implementation

Complete ongoing construction projects in accordance with the schedules below:

FACILITY	COMPLETION DATE
Annapolis WRF	Operational June 2015
Broadneck WRF	2016 – Schedule under review
Broadwater WRF	Operational June 2015
Cox Creek WRF – Phase I	Complete
Cox Creek WRF – Phase II	January 2017
Maryland City WRF	Complete
Mayo WRF	January 2017
Patuxent WRF	Complete

SEPTIC SOURCE SECTOR

Implementation of Anne Arundel County's Onsite Sewage Disposal System (SDS) Strategic Plan

2016 – 2017 Implementation Milestones (Large CIP Program)

- Determine core features of program such as funding and participation through interdepartmental discussions and with direction and action by the Council and Administration as needed.
- Consistent with program features, evaluate the potential for increased staffing in project management, public relations, and other areas either through direct hiring or staff augmentation contracts.

- Consistent with program funding, initiate designs for capital projects within the Priority Management Areas.
- Refine sewer extension and cluster treatment system preliminary plans and cost estimates based upon site specific engineering studies. Update costing information as appropriate with recent bid prices.
- Hire OSDS Strategic Planner to develop key program features including: engineering, design and construction management, financial planning, public and environmental policy, public relations, and program management. Upon completion, submit to MDE a strategic plan defining the program elements.
- Upon approval of program funding, submit budget requests to support design and construction contracts within the Priority Management Areas.
- For the Broadneck Sewer Service Area, prepare an overall schedule for the design and construction of the sewer system expansion to facilitate a systematic and logical progression for retirement of septic systems.

2016 – 2017 Implementation Milestones (Small CIP Program)

- Connect existing OSDS to public sewer through existing sewer connection contract depending on current contract funding.
- Create a new Project in budget to fund small extension and connection work.
- Consistent with the Strategic Plan, determine core features of program such as funding and participation through interdepartmental discussions and with direction and action by the County Council and Administration as needed.
- Create a prioritization list for identifying projects and potential construction contracts.

2016 – 2017 Implementation Milestones (Private Sector Facilitated Upgrades)

- Explore potential of public-private partnerships for facilitating connection projects.

2016– 2017 Milestones (OSDS Nitrogen Reducing Units)

- **Implement the requirements of C.O.M.A.R. 26.04.02**

Code of Maryland Regulations C.O.M.A.R. 26.04.02 established new requirements for on-site sewage disposal systems within the Chesapeake Bay Watershed. Effective January 1, 2013, a Best Available Technology (BAT) nitrogen-reducing unit (NRU) is required in place of a septic tank where a building addition, upgrade or new on-site sewage disposal system installation is made. The requirements apply to permit applications for septic tanks, drain fields, drywells, sand mound systems, pressure dosed beds and any other type of on-site sewage disposal system on a property located within the Chesapeake Bay Watershed. Repairs or replacement of septic systems outside the Critical Area are not required to comply with the new regulation.

- **Implement the Bay Restoration (Septic) Fund Program**

Anne Arundel County will continue to administer a Bay Restoration (Septic) Fund program. The program is supported by a State grant from the Maryland Water Quality Financing Administration of the Maryland Department of the Environment (MDE) and is subject to the Maryland Board of Public Works approval. Anne Arundel County is required to implement the Bay Restoration (Septic) Fund program consistent with the program implementation guidance issued by MDE. The Bay Restoration (Septic) Fund provides up to 100% funding to property owners to cover part or all of the cost for the nitrogen-reducing unit. Applications are prioritized based on the guidance given from MDE, with repair of failing systems in the Critical Area given the highest priority for funding. A geographic information system (GIS) is used to determine the location of the property in proximity to the Chesapeake Bay Critical Area. The County utilizes only third party verified BAT approved units for grant eligibility. BAT units are approved based on their capability of reducing total nitrogen from an on-site sewage disposal system by 50%. MDE evaluates and establishes a list of nitrogen-reducing units approved as Best Available Technology (BAT) for nitrogen removal. Grant awards include the purchase and installation cost of a BAT unit and a 5 year service contract. Qualified expenses are made by Anne Arundel County as a reimbursable cost from MDE based on the grant award letter. Currently the use of Bay Restoration Funds has been expanded and are available to support sewer connection projects where public sewer abuts a property or is in a utility easement immediately abutting a property. Grants are limited to \$10,000 per household with priority given to properties in Critical and Priority Funding Areas within Existing Sewer Service Areas of the County.

- **Implement the Requirements of the Groundwater Protection Plan**

The County Dept. of Health will continue to implement the requirements of the Groundwater Protection Plan as found in Appendix D of the County's Master Water

and Sewer Plan. This Plan documents and summarizes policies and programs regarding on-site sewage disposal systems and the protection of groundwater where public sewer is not available. Nitrogen-reducing technology is utilized on properties for the repair of failing on-site sewage disposal systems, limited home additions, and new construction outside the Critical Area where variances to lot size, number of replacement systems, or change in the size of the on-site disposal system is necessary.

URBAN STORMWATER SOURCE SECTOR

Core Urban Stormwater Strategy – Tier I

2016 – 2017 Implementation Milestones (Stream Restoration)

- FY 16 Twenty-five thousand four hundred and thirty-four (25,434) linear feet of stream restoration programmed
- FY 17 Six thousand nine hundred and eighty-six (6,986) linear feet of stream restoration programmed

2016 – 2017 Implementation Milestones (Stormwater Pipe Outfall Retrofits)

- FY 16 Two hundred sixteen (216) outfalls programmed for water quality enhancement
- FY 17 Thirty-two (32) outfalls programmed for water quality enhancement

2016 – 2017 Implementation Milestones (Pre 2002 Stormwater Management Pond Retrofits)

- FY 16 Sixty-five (65) pond retrofits programmed
- FY 17 Five (5) pond retrofits programmed

Core Urban Stormwater Strategy – Tier II

2016 – 2017 Implementation Milestones (Street Sweeping)

- Implement twice monthly street sweeping along up to three hundred (300) curb miles of the County road network.
- Implement expansion of curbed streets included in the County's street sweeping program to include WIP, TMDL and NPDES related priority areas. The County anticipates adding up to 50 curb miles to the street sweeping program.

2016 – 2017 Implementation Milestones (Inlet Cleaning)

- Hand clean up to sixteen thousand (16,000) inlets yearly.
- Machine clean up to three thousand (3,00) inlets yearly.

2016 – 2017 Implementation Milestones (Tree Planting)

- Implement tree planting on up to seventy (70) acres.
Rockhold Creek Farm Park (50 acres)
Simmons Farm (15-20 acres)

2016 – 2017 Implementation Milestones (Stormwater to the Maximum Extent Practicable)

- Provide stormwater treatment to the maximum extent practical on seventy-six (76) acres of publically owned land and facilities.

2016 – 2017 Implementation Milestones (Watershed Stewards Academy (WSA) and Watershed Organization Implementation)

- The Anne Arundel Watershed Stewards Academy will install two hundred (200) rain barrels.
- The Anne Arundel Watershed Stewards Academy will plant twelve thousand (12,000) native plants and trees.
- The Anne Arundel Watershed Stewards Academy will install four hundred thousand (400,000) square feet of new residential and community restoration.
- The watershed organizations operating in Anne Arundel County will:
 - Restore approximately two thousand six hundred and fifty (2,650) linear feet of stream
 - Construct two hundred and ninety (290) linear feet of living shoreline
 - Create five thousand eight hundred (5,800) square feet of tidal marsh/living shoreline
 - Treat thirteen (13) acres with bio-retention systems
 - Five thousand (5,000) square feet bio-retention in Critical Area
 - One (1) acre wetland restoration
 - Reforest five (5) acres

2016 – 2017 Implementation Milestones (Other)

- Removal of 5.98 acres of concrete lined perennial stream channel in the headwaters of Furnace Creek (1.88 acres) and Marley Creek (4.1 acres).