

**Anne Arundel County 2014 - 2015 Programmatic Two-Year Milestones
Interim Progress Report
January 1, 2014 – December 31, 2014**

Target Date	Milestone	Deliverable	Lead Agency	Comments/Status Updates
Urban Stormwater				
	<u>Core Urban Stormwater Strategy – Tier I</u>			
12/2014	Implement the County’s Watershed Protection and Restoration Program (WPRP)	Fully staffed and implemented program	DPW	Implementation of the WPRP continued in 2014. 50% of the newly appropriated positions were hired in 2014. The remaining vacant positions will be filled in 2015. Tracking and accounting policies and procedures are under development. Implementation of CIP restoration projects funded in FY14 and FY15 is underway. New procurement tools were developed in 2014 to facilitate design and construction contracting and will be available for utilization Jan/Feb 2015.

Target Date	Milestone	Deliverable	Lead Agency	Comments/Status Updates
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	During 2014 WPRP developed a comprehensive web-based informational program including a dedicated webpage, Facebook page, and Twitter account to provide residents with an overview of the WPRP and fee, restoration plans, watershed assessments and educational resources regarding stormwater pollution. WPRP staff also conducted 16 presentations to community groups and utilized local media outlets to promote the program and highlight accomplishments.
On-going	Investigate and establish public/private partnerships to leverage funding and implement WIP restoration projects	Final Framework for Implementation	DPW	WPRP initiated a grant program partnership with the Chesapeake Bay Trust to provide funding for restoration projects which was announced in December 2014. Additionally, DPW provided several letters of support for non-profit restoration grant applications to a variety of funders. Opportunities are being investigated as they arise for developing public/private partnerships focused on environmental restoration.

Target Date	Milestone	Deliverable	Lead Agency	Comments/Status Updates
On-going	Refine the County's Stormwater BMP Database	Refined Database	DPW	As project managers conduct assessments of BMPs that have been identified for retrofit, rehabilitation, enhancement, and construction, corrections and updates to the County's BMP data base are being made. This process will continue as future WIP implementation and new development projects are constructed. WPRP staff are working with staff in Inspections and Permits and the Bureau of Highways to create a unified stormwater BMP tracking system for the County that will ultimately allow inspections to be remotely added. The database structure will be modified as necessary to remain compliant with MDE's required data base structure.

Target Date	Milestone	Deliverable	Lead Agency	Comments/Status Updates
6/2014	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	AACo and SHA continued meeting quarterly to coordinate WIP implementation projects, identify opportunities for collaborative implementation, monitor progress and allocate potential TMDL credits. Identifying restoration opportunities in the Jabez watershed was a primary focus during 2014. SHA contracted an assessment of the watershed which is currently underway. When the assessment is completed in 2015 the County and SHA will develop a coordinated approach to implementation. Restoration of the headwaters of Warehouse Creek was previously listed as a priority for implementation in the County, and a project that could be jointly executed with SHA. This project and the continued Jabez effort are likely to be the primary implementation focus of the County's work with SHA in 2015.

Target Date	Milestone	Deliverable	Lead Agency	Comments/Status Updates
6/2014	Improve Federal, State and Local permitting process for restoration projects.	A permitting process that reduces the amount of time to secure federal, state and local permits for restoration projects.	DPW	During 2014 the County continued working with the Corps of Engineers and MDE to advance this effort. Scheduling pre-application meetings has proven to be beneficial. The County also provided comments on the Corps' draft Regional General Permit for TMDL activities, and participated with state and federal regulatory agencies in creating a pooled monitoring program to collect more scientifically rigorous data on stream restoration to address regulatory concerns.
	<u>Core Urban Stormwater Strategy – Tier II</u>			

Target Date	Milestone	Deliverable	Lead Agency	Comments/Status Updates
6/2014	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	During 2014 the County contracted for street sweeping services. These services will augment the existing County street sweeping program and expand as the Stormwater Remediation Fee is phased in and additional revenue becomes available to encompass additional curbed County roadways. Currently, the County is targeting those curbed roads with high traffic volumes or outfalls that discharge to and/or touch a tidal or non-tidal water body within the Patapsco River Watershed, the priority area given the Baltimore Harbor Trash TMDL. Additionally, during 2014 the Bureau of Highways hired two (2) Vactor operators and is currently in the process of purchasing two (2) Vactor trucks for the street sweeping program.
6/2014	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	Mapping culvert and storm drain rehabilitation projects will facilitate project coordination and implementation. Through this effort tracking and management of stormwater/storm drain assets will be further enhanced. Routine coordination meetings are held between the Capital Implementation staff and the BOH staff.

Target Date	Milestone	Deliverable	Lead Agency	Comments/Status Updates
12/2014	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	All but one of the newly funded WPRP positions in the Bureau of Highways (BOH) has been filled. Hiring of the remaining vacant position will occur in 2015.
12/2015	Engage Watershed Organizations in WIP implementation	Achieve engagement of and coordinate watershed organizations within the County in watershed implementation projects.	DPW	The Severn Riverkeeper, South River Federation, Rhode/West Riverkeeper and the Watershed Stewards Academy are all actively engaged in restoration projects within the County. Other smaller organizations operating within the County are working to increase their capacity to conduct restoration work.

Target Date	Milestone	Deliverable	Lead Agency	Comments/Status Updates
12/2015	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	The Dept of Public Works continued to provide letters of support to NGOs for grant applications for restoration projects. In 2014 the County's WPRP developed a new <i>Anne Arundel County Watershed Restoration Grant</i> in collaboration with the Chesapeake Bay Trust. The grant funds design and implementation costs for water quality projects proposed by NGOs, community associations and faith-based organizations. The first application deadline for this new program is February 27, 2015. Further information can be found on this grant program can be found at www.cbtrust.org

Target Date	Milestone	Deliverable	Lead Agency	Comments/Status Updates
12/2015	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/WSA	WPRP staff coordinated with the Watershed Stewards Academy (WSA) to focus the outreach and restoration efforts of Stewards in watersheds targeted for WIP implementation projects. Watershed Stewards work in areas where the County has programmed CIP implementation projects to engage communities in advance of project initiation. During FY14, 23 Master Watershed Stewards were certified and 28 additional candidates completed their instruction and were working on their capstone projects. The WSA held 3 networking meetings and offered 8 continuing education courses. All certification and continuing education courses were instructed by stormwater professionals or Master Watershed Stewards. As a group, the Master Watershed Stewards gave over 3,500 volunteer hours toward engaging communities in stormwater education and restoration. The WPRP worked throughout 2014 to establish a formal agreement between the County and WSA to provide water quality education and outreach services.

Target Date	Milestone	Deliverable	Lead Agency	Comments/Status Updates
12/2015	The Watershed Stewards Academy will support community leaders to coordinate residential restoration and stormwater outreach.	200 rain barrels installed. 8,000 native plants and trees planted. 200,000 square feet of new residential and community restoration installed. Direct outreach and education on stormwater awareness topics to over 15,000 citizens. Tracking, maintenance and /or renovation of 50-100 of existing BMPs.	DPW/WSA	In 2014 the WSA continued cultivating community leaders to take action in their local communities to improve the health of their waterways and restore their watersheds. Watershed Stewards engaged a number of institutions throughout the County through outreach, education and hands-on-projects. In FY14, the WSA engaged 780 community volunteers, reached over 5,000 people in on-on-one outreach on stormwater topics, installed 55 rain barrels and 9 cisterns, planted over 14,000 native trees and plants, created 317,887 square feet of stormwater restoration, and removed almost 30,000 square feet of invasive plants

Target Date	Milestone	Deliverable	Lead Agency	Comments/Status Updates
1/2015	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/WSA	WSA piloted its “Clean Water Communities” neighborhood certification program in the community of Hillsmere in 2014 where homeowners are being engaged in an intensive effort to reduce pollution and stormwater runoff in their neighborhood. . Through the “Clean Water Communities” program in Hillsmere, 9 cisterns and 7 rain gardens across 10 properties were installed to prevent 201,405 gallons of runoff from entering Duvall Creek each year. This is equivalent to a 20% reduction in runoff across 20 residential parcels in close proximity to each other.
Wastewater Source Sector				
12/2014	Start-up and optimize new ENR facilities (e.g, Broadneck WRF, etc.) upon completion of construction.	Conditional Acceptance for contracts	DPW	In progress. Maryland City WRF complete as of January 2015. Broadwater, Patuxent, and Annapolis WRFs are awaiting performance testing. Cox Creek and Broadneck WRFs are under construction. Mayo WRF is under design.
N/A	Maintain progress on Cox Creek WRF ENR construction project.	Ongoing construction work	DPW	In progress. Project was initiated in 2013 and is ongoing with completion slated for the end of 2016.

Target Date	Milestone	Deliverable	Lead Agency	Comments/Status Updates
Septic Source Sector				
	<u>Large CIP Program</u>			
2/2015	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	In progress. Preliminary discussions have been held within the County. Further plan development may or may not draw on outside resources. It is anticipated that discussions will be ongoing in 2015.
12/2015	Develop mechanisms and policies to achieve funding.	Formal establishment of revised rates or fee structures via legislative action by County Council	Budget Office	In progress. Formal recommendations will be developed after the program approach and financial plan have been determined. Development may or may not draw on outside resources.
12/2015	Modify the County Code and administrative procedures as needed to provide authorization for the program.	Legislative code changes	Law Office	Proposed legislation and/or administrative procedures will be developed after key program elements have been finalized. It is anticipated that these discussions will be ongoing in 2015.
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	In progress. The County applied for and received a Chesapeake Bay Trust Watershed Assistance Grant to support this effort. Contract X764248 opened in 12/2014.

Target Date	Milestone	Deliverable	Lead Agency	Comments/Status Updates
06/2015	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 of position authorization.	Multiple agencies	In progress. As the number of contracts and estimated costs per year are more fully developed, County departments will project the staffing necessary to support the program.
03/2015	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	The Department of Public Works will finalize its staffing and management plan once the program funding levels have been established. Staff augmentation contracts will be developed as part of this process. Additionally, the Utility Finance unit in the DPW hired a BRF administrative position
03/2015	Review and clarify legal and administrative policies to connect existing OSDS to public sewer and cluster treatment systems.	Internal legal brief(s)	Law Office	This review of current policies will be conducted once the overall program implementation approach has been determined.
12/2014	Review and clarify permitting requirements to connect existing OSDS to public sewer and cluster treatment systems.	Internal memorandum	DPW & OPZ	Review and clarification of permitting requirements will occur in tandem with development of the septic tracking and reporting system. Further review will occur once the overall tracking and reporting program implementation approach has been determined.

Target Date	Milestone	Deliverable	Lead Agency	Comments/Status Updates
12/2014	Develop Countywide Public Relations Strategy.	Written strategy for engaging the public and providing timely and accurate information.	DPW	It is anticipated that this strategy will be developed as part of the staffing and management plan and may or may not draw on outside resources. If outside resources are utilized, a Scope Description will be developed.
12/2015	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	In progress. Cluster areas have been identified, but specific boundaries still need further development.
06/2015	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	Proposed legislation and/or administrative procedures will be developed after key program aspects have been finalized. Program development may or may not draw on outside resources. Mandatory participation may not be required.
12/2014	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	DPW and Health Dept. initiated regular meetings during the latter half of 2013. These meetings continued in 2014. This initiative is currently on hold based on discussions during those meetings that the use of cluster systems may be limited and therefore the development of formal standard designs may be unnecessary.

Target Date	Milestone	Deliverable	Lead Agency	Comments/Status Updates
Septics Source Sector – Cont'd				
	<u>Small CIP Program</u>			
12/2014	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	Proposed legislation and/or administrative procedures will be developed after key program aspects have been finalized. Further plan development may draw on outside resources to facilitate. Mandatory participation may not be required. It is anticipated that these discussions will occur in 2015.
12/2014	Determine how costs will be shared by existing homeowners.	Small CIP Program Implementation Plan	DPW – facilitate	In progress. Discussions in 2014 focused on the County's existing petition process and its suitability to the septic conversion program. Discussions will continue into 2015.
12/2014	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 – facilitate	See status of previous milestone. Further program development may draw on outside resources to facilitate.

Target Date	Milestone	Deliverable	Lead Agency	Comments/Status Updates
12/2014	Explore incentive systems for individual homeowners to increase interest in voluntary participation.	Summarize options in internal memorandum	Various	In progress. The Department of Public Works and the Health Department held meetings in 2014 to discuss BRF funding possibilities. Public outreach has been part of those discussions.
12/2014	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	In progress. A prioritization system is currently under development and will be discussed in 2015.
N/A	Develop a public outreach program to notify neighborhoods of upcoming projects.	N/A – Will be incorporated into the public relations strategy	DPW	Public outreach has been a topic for discussion in coordination meetings with Health Department during 2014.
12/2014	Determine an annual funding level for the program implementation.	Set yearly appropriation level for contract(s).	DPW	In progress. The initial Small CIP Program development task is complete. An appropriation level will be established as the program moves forward to implementation.
12/2014	Determine staffing requirements within the Dept. of Public Works and the Health Dept. to support the program.	Requests for positions where determined necessary	Various	Staffing requirements will be directly related to the decisions regarding the annual program funding level.
Septics Source Sector – Cont'd				
	<u>Private Sector Facilitated Upgrades</u>			

Target Date	Milestone	Deliverable	Lead Agency	Comments/Status Updates
12/2014	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	The County's Growth Tiers were certified in 2013. Information on the Tiers is posted on the County's web site. Initial meetings have been conducted to address components of the Water and Sewer Master Plan. Now that the County's Growth Tiers have been developed further progress on this milestone will be made.
12/2014	Develop new policies to further reduce nutrient loading from future OSDS.	Internal meetings to review additional policies to encourage additional OSDS load reduction	DPW/OPZ	In progress. The County has received inquiries regarding connection credits to be provided to developers. Further discussions will be held in 2015.
Septic Source Sector – Cont'd				
	<u>OSDS Nitrogen Reducing Units</u>			

Target Date	Milestone	Deliverable	Lead Agency	Comments/Status Updates
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.	Continue to educate Anne Arundel County residents and businesses on proper maintenance of an on-site sewage disposal system. Continue to recommend septic tank inspections and pump-outs be conducted by a licensed liquid waste hauler once every three years. Annually distribute 450 copies of educational materials in the form of DVDs, records, file folders, and brochures to County residents and businesses to meet the Septic System Maintenance requirement goals. 480 copies of educational materials were distributed to County residents and businesses in 2014.

Target Date	Milestone	Deliverable	Lead Agency	Comments/Status Updates
On-going	Enforcement of Property Maintenance Code requirements	Enforcement of identified Code violations involving improper maintenance of septic systems.	Health Dept.	Continue to enforce the requirements of the Anne Arundel County Property Maintenance Code. The Anne Arundel County Property Maintenance Code (PMC) requires that property owners maintain their septic systems in a safe, sanitary and functional condition. Where a violation is identified, Anne Arundel County enforces the requirements of the Maintenance Code including the issuance of notices, citations, and civil fines. 65 cases of violations of the Anne Arundel County PMC were enforced involving overflowing or failing OSDS.

Target Date	Milestone	Deliverable	Lead Agency	Comments/Status Updates
On-going	Maintain accurate inventory of developed accounts served by on-site disposal systems.	Accounts with accurate septic system information.	Health Dept.	Continue to develop and perform quarterly updates to accurately assess the inventory of developed accounts served by on-site sewage disposal systems. This inventory is critical to the assessment of the State's Bay Restoration Fund, and to ensure accurate accounting of nitrogen reducing units and Best Available Technology for tracking purposes. The Department of Health conducted quarterly assessments of the inventory and provided the listing of developed properties with OSDS and number of users of each OSDS to the Office of Finance for billing purposes.

ANNE ARUNDEL COUNTY GOVERNEMENT

Chesapeake Bay TMDL

2-Year Implementation Milestones

Interim Progress Report

Progress Achieved from July 1, 2013 – June 30, 2014

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

MILESTONES

WASTEWATER SOURCE SECTOR

2014 – 2015 IMPLEMENTATION MILESTONES

WASTEWATER SOURCE SECTOR

Major Municipal WWTPs (ENR Upgrades)

2014 – 2015 Implementation Milestones

ENR Project Implementation

STATUS: Complete ongoing construction projects in accordance with the schedules below:

<i>FACILITY</i>	<i>COMPLETION DATE</i>
<i>Annapolis WRF</i>	<i>June 2015</i>
<i>Broadneck WRF</i>	<i>2015 – Schedule under review</i>
<i>Broadwater WRF</i>	<i>June 2015</i>
<i>Cox Creek WRF – Phase I</i>	<i>Completed</i>
<i>Cox Creek WRF – Phase II</i>	<i>January 2017</i>
<i>Maryland City WRF</i>	<i>December 2014</i>
<i>Mayo WRF</i>	<i>January 2017</i>
<i>Patuxent WRF</i>	<i>September 2015</i>

SEPTIC SOURCE SECTOR

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

2014 – 2015 Implementation Milestones (Large CIP Program)

Approximately every three weeks DPW holds internal coordination meetings to review progress on the overall program. Agenda topics vary depending on ongoing activities. New tasks or activities that are identified as being required to support an aspect of the program are assigned a

tracking number based on calendar year and entered into a log. Due dates are loosely assigned and tasks are generally completed based on the dependence of other tasks.

A copy of the Task List as of January 2015 is provided as supplemental information. More detailed descriptions can be provided if necessary. The list reflects when tasks are identified and added to the list rather than the completion date. As such all figures provided are to be construed as approximations.

- 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.

STATUS: During 2013, the Department of Public Works (DPW) identified four (4) separate tasks related to the development of local policy, two (2) of which are now completed. During 2014, DPW identified 36 separate tasks related to the development of local policy, 21 of which are now completed.

- 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.

STATUS: Formal recommendations will be developed after the program approach and financial plan have been determined.

- Consistent with program funding, initiate designs for capital projects within the Priority Management Areas.

STATUS: Formal recommendations will be developed after the program approach and financial plan have been determined.

- 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.

STATUS: DPW has developed conceptual layouts and cost estimates for approximately 140 separate projects that could be included in the Large CIP Program. Individual tasks have been completed in-house and through the use of consultants under Open End contracts. DPW has closed out eight (8) of 28 separate tasks opened in 2013 related to the Large CIP program layouts and cost estimates. DPW completed 20 of 39 separate tasks opened in 2014 related to the Large CIP Program layouts and cost estimates. A copy of the cost summary worksheet is provided for reference. It should be understood

that these estimates are preliminary and work is still in progress on updating and reconciling information. In addition, it is not anticipated that all projects identified will be taken through to construction.

- Submit to MDE a strategic plan defining the areas and projects to be included in the Large CIP Program.

STATUS: Submission of a strategic plan is expected during calendar year 2015.

- Submit budget requests to support design and construction contracts within the Priority Management Areas.

STATUS: The County completed the following studies related to providing public sewer to areas currently served by septic systems.

- *Contract X764237 – Mid-size Sewer Extensions*
- *Contract X764235 – Annapolis Sewer Extension*
- *Contract X764233 – Bodkin Point Septic Conversions*

Budgeting for design and construction contracts will be dependent upon the final program approach and identification of funding needs.

- 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.

STATUS: The County completed the following studies related to the Broadneck Sewer Service Area:

- *Contract X764234 – Lower Broadneck Extensions Phase I*
- *Contract X764238 – Lower Broadneck Extensions Phase II*
- *Contract X764240 – Large CIP Implementation Plan*

2014 – 2015 Implementation Milestones (Small CIP Program)

- Connect existing OSDS to public sewer through existing sewer connection contract depending on current contract funding.

STATUS: The County has recently re-issued a blanket order contract for water and sewer house connections. This contract provides a method for providing connection

where existing sewer abuts property but connections were not made as part of a previous capital project. This contract is expected to fund between 70-80 connections per year.

- Create a new Project in budget to fund small extension and connection work.

STATUS: Creation of new project series in the Capital Budget will be done once program funding is established. The County completed Contract X764239 – “Small CIP Program Plan” to develop layouts for areas not included in the Large CIP layouts. The County has also opened a second contract, X764246 – “Small CIP Program Plan – Phase 2” to be completed in 2015. Information from these contracts will be used to establish the basis for the annual funding level.

- 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.

STATUS: DPW held multiple meetings with counterparts in the Health Department to share information regarding the OSDS inventory; review the current connection process and discuss potential projects. During 2014 DPW identified 18 separate tasks related to the development of the Small CIP Program, six (6) of which were completed. Discussions with the new administration regarding the program are anticipated in calendar year 2015.

- Create a prioritization list for identifying projects and potential construction contracts.

STATUS: Creation of a prioritization list will be done once program features are finalized.

2014 – 2015 Implementation Milestones (Private Sector Facilitated Upgrades)

- Amend and revise the Master Plan for Water and Sewer to identify areas developed on septic systems that will be connected to the public system.

STATUS: The 2013 Anne Arundel County Master Plan for Water Supply and Sewerage Systems expanded the Sewer Service Area boundaries to include areas on septic that were identified to be connected to public sewer. Also, the sewer timing categories of some areas identified to be connected to public sewer were changed from “No Planned Service” to “Future Service”; and from “Future Service” to “Planned Service”.

- Perform outreach to the development community explaining potential program changes.

STATUS: This is a joint effort between the DPW and the Health Department. Two meetings were held after June 2014 to discuss community engagement.

2014 – 2015 Implementation Milestones (Septic Conversion to Public WRF)

- Connect 20 septic systems to public WRF

STATUS: 43 septic systems were connected to public sewer during FY14.

2014– 2015 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.

STATUS: In progress. The Department of Health continues to implement the requirements of COMAR 26.04.02 for Best Available Technology (BAT) where a building addition, upgrade or new OSDS is made in the County. Three hundred and six (306 BAT) systems were installed in the County during FY14 one hundred and ninety-three (193) were installed using BRF funding. Additionally, four (4) “non BAT” engineered nitrogen reducing systems were constructed.

- **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 uses of

Bay Restoration Funds have 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.

STATUS: In progress. The Department of Health continues to administer the Bay Restoration Septic grant program that provides funding to projects that reduce the amount of nitrogen discharged from on-site sewage disposal systems (OSDS) to the Chesapeake Bay. During FY14, the Department of Health provided grants for 193 best available technology (BAT) and 43 public sewer hook-ups that reduce the total amount of nitrogen from OSDS and improves water quality.

- **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.

STATUS: In progress. The Department of Health continues to implement the requirements of the Groundwater Protection Plan in assuring nitrogen-reducing technology is utilized for existing development using OSDS and where recommended for building permit approval.

URBAN STORMWATER SOURCE SECTOR

Core Urban Stormwater Strategy – Tier I

2014 – 2015 Implementation Milestones (Stream Restoration)

- FY 14 39,364 linear feet of stream restoration programmed
- FY 15 63,304 linear feet of stream restoration programmed

STATUS: Feasibility assessments and design contracts have been initiated for the stream restoration projects programmed in FY14. The stream restoration projects programmed in FY15 have been assigned to project managers. Those projects managers are in the process of initiating contracts for feasibility assessments. The following projects totaling 17,110 linear feet were listed as “under design” in the County's 2012 – 2013 2-Year Implementation Milestone Report:

Cowhide Branch – 4,500 linear feet
Dividing Creek – 830 linear feet
Duvall Creek Water Quality Retrofit -780 linear feet
Granite Baptist Church North & South Fork Restoration – 1,585 linear feet
Kingsberry Drive Stream Restoration – 1,100 linear feet
Mill Creek at College Parkway – 2,000 linear feet
Old Mill In-stream Weir - 365 linear feet
Old Mill Stream Restoration – 1,100 linear feet
Shiple's Choice Dam Rehab. – 3,100 linear feet
Sloop, Eli & Long Cove Retrofit – 750 linear feet
Warehouse Creek Headwaters – 1,000 linear feet

Design and permitting is either complete or nearing completion. All of these projects are pending construction in 2015. However, proposed construction schedules can be delayed if State and Federal permitting requirements are extensive. (Note: In response to comments received from permitting agencies, the stream restoration component of the Shiple's Choice Dam Rehab project has been deterred to a future date.)

2014 – 2015 Implementation Milestones (Stormwater Pipe Outfall Retrofits)

- FY 14 174 outfalls programmed for water quality enhancement
- FY 15 253 outfalls programmed for water quality enhancement

STATUS: Feasibility assessments and design contracts have been initiated for the outfall retrofit projects programmed in FY14. The outfall retrofit projects programmed in FY15 have been assigned to project managers. Those project managers are in the process of initiating contracts for feasibility assessments. The following projects listed as “under design” in the County’s 2012 – 2013 2-Year Implementation Milestone Report have been constructed: (Note: acres managed are total acres)

Buena Vista Outfall Restoration Phase 2 – 1.3 acres managed
Forest Drive Outfall Restoration – 41.4 acres managed
Haskell Drive Outfall Restoration – 10.0 acres managed
Olde Severna Park Outfall – 49.7 acres managed
Southdown Shores Rd. Outfall Stabilization – 23.8 acres managed

The following projects listed as “under design” in the County’s 2012 – 2013 2-Year Implementation Milestone Report remain under design and or in permitting:

Barrensdale Outfall Restoration – 22.4 acres managed

Bay Green Drive Culvert Repair – 311.7 acres managed
Breitwert Ave. Storm Drain Improvement – 28.5 acres managed
Buttonwood Trail Outfall Restoration – 7.2 acres managed
Dividing Creek Outfall Restoration – 28.9 acres managed
Knollwood Road Outfall – 9.0 acres managed
Old Bay Ridge Abandoned RR Embankment – 125.4 acres managed
Pinewood Road Storm Drain Outfall Enhancement – 26.7 acres managed
Shipleigh Road Outfall – 18.1 acres managed

2014 – 2015 Implementation Milestones (Pre 2002 Stormwater Management Pond Retrofits)

- FY 14 78 pond retrofits programmed
- FY 15 50 pond retrofits programmed

STATUS: Fourteen (14) of the seventy-eight (78) ponds programmed in FY14 have been constructed (BMP# 652, 819, 24, 2478, 887, 45, 13, 242, 103, 262, 7188, 240, 1496, 4181). Feasibility assessments and design contracts have been initiated for the remaining pond retrofit projects programmed in FY14. The pond retrofit projects programmed in FY15 have been assigned to project managers. Those project managers are in the process of initiating contracts for feasibility assessments. The following projects were listed as “under design” in the County’s 2012 – 2013 2-Year Implementation Milestone Report. These projects are continuing through the design and permitting process (Note: acres managed are total acres)

209th Street Pond Retrofit – 6.8 acres managed
Concorde Circle Dry Pond Retrofit – 60.3 acres managed
Hospital Drive SWM Retrofit Ponds 2 & 3 – 45.2 acres managed
Marabook SWM Retrofit – 14.0 acres managed
Oakleaf Villa SWM Retrofit 5.9 acres managed
Old County Road SWM/BMP – 64.7 acres managed
Valentine Creek SWM Retrofit – 34.0 acres managed
Windswept SWM Pond – 15.5 acres managed

Core Urban Stormwater Strategy – Tier II

2014 – 2015 Implementation Milestones (Street Sweeping)

- Implement monthly street sweeping of up to 266 miles of curbed County roads.

STATUS: Two hundred and seventy-five (275) miles of streets were swept between July 1, 2013 and June 30, 2014. To capture the most debris for each available hour of street

sweeping, arterial, major collector and roads in business districts were targeted for routine sweeping. The County's neighborhood streets are relatively clean because of the work of conscientious residents who assist the County's Bureau of Highways by keeping the areas in front of their homes free of litter and debris as a result, residential streets were not included in the program for routine street sweeping during this reporting period. Main thoroughfares, business districts and industrial areas were scheduled for street sweeping up to four (4) times per year.

2014 – 2015 Implementation Milestones (Inlet Cleaning)

- Clean up to 17,200 inlets yearly.

STATUS: The County cleaned and removed debris from 15,804 catch basins, inlets and outlets of pipes during the July 1, 2013 – June 30, 2014 reporting period. In addition, the County inspected catch basins, manholes, and associated pipes and ditches to identify structures for cleaning with a sewer vacuum. A total of 1,165 structures were cleaned with a Vactor truck during this reporting period.

2014 – 2015 Implementation Milestones (Tree Planting)

- Implement reforestation on sixty (60) acres.

STATUS: The County's Forestry Program planted 1.55 acres on four (4) projects. Eighteen (18) acres of forested land were purchased and permanently protected. The County purchased the Simmons tract in Churchton consisting of 21.12 acres in the Critical Area which will be reforested after acquisition.

Street tree plantings are planned for spring 2015 including projects in Galesville, Severna Park, Davidsonville, Pasadena, and Arnold.

During this reporting period the County developed a new grant program, the Anne Arundel County Forestry and Greening Program." This grant program is administered by the Chesapeake Bay Trust and provides funding for forestry and greening projects in Anne Arundel County. The goal of this program is to implement cost-effective reforestation and greening projects in the County to increase tree canopy, implement demonstration-scale buffer projects and/or reforest or afforest parcels of land. The deadline for the first round of applications for this grant is March 5, 2015.

2014 – 2015 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.

STATUS: The following three (3) projects were completed on publicly owned property during this reporting period:

Londontowne Public House – SPSC system – 4.8 acres treated

Anne Arundel Community College, Resources Management Building – Rain Garden – 0.25 acres treated

Cape St. Claire Fire Station – SPSC – 0.85 acres treated

The following projects were listed as “under design” in the County’s 2012 – 2013 2-Year Implementation Milestone Report:

Brooklyn Park LID and Rain Garden. This project is currently in feasibility study.

Century Towne Road ESD. This project has been re-programmed for design in FY16.

Old Mill Community Association Bio-retention Facility. A concept plan for this project was developed as part of the Patapsco Tidal Watershed Assessment. Design has not been completed to date.

2014 – 2015 Implementation Milestones (Watershed Stewards Academy (WSA) and Watershed Organization Implementation)

- The Anne Arundel Watershed Stewards Academy will install 200 rain barrels.

STATUS: During this reporting period Watershed Stewards installed 55 rain barrels and 9 cisterns which capture over 5,000 gallons of water during each major rain event.

- The Anne Arundel Watershed Stewards Academy will plant 8,000 native plants and trees.

STATUS: During this reporting period Watershed Stewards planted over 14,000 native trees and plants.

- The Anne Arundel Watershed Stewards Academy will install 200,000 square feet of new residential and community restoration.

STATUS: During this reporting period Watershed Stewards installed 317,887 square feet of residential and community restoration.

- The watershed organizations operating in Anne Arundel County will:
 - Restore approximately 14,353 linear feet of stream
 - Construct 1,615 linear feet of living shoreline
 - Create 10,500 square feet of tidal marsh/living shoreline
 - Treat 30 acres with bio-retention systems
 - Construct 11,200 square feet bio-retention in Critical Area
 - Restore 4.75 acres of wetlands
 - Retrofit 1 SWM pond
 - Reforest 1.5 acres

STATUS:

West/Rhode Riverkeeper:

YMCA Camp Letts - 300 trees on 2 acres of horse pasture were planted to create a forested buffer in the fall of 2014.

Carrie Weedon Science Center – creation of a wetland garden in July 2013

Two (2) restoration projects are planned for 2015 one in Avalon Shores and one in Harwood in the transmission line ROW. Additionally the West/Rhode Riverkeeper received grant funding in 2014 to construct 650 feet of living shoreline at YMCA Camp Letts and 50 feet of living shoreline at the Chesapeake Yacht Club.

South River Federation:

Arundel on the Bay – Conversion of 500 feet of roadside ditches to bio-retention swales and restoration of 300 linear feet of living shoreline Spring 2014

Camp Woodlands – Creation of 500 linear feet of living shoreline and removal of 90 linear feet of bulkhead. Installed rain barrels, a rain garden and bio-retention and planted 40 native plants in the uplands (Spring 2014). Stabilization of an eroded gully on site is planned once funding is secured.

Church Creek Headwaters north of RT 665 – stream restoration completed September 2014

Poplar Point – SPSC and wetland creation - completed June 2014

Subaru Annapolis -3 rain gardens created June 2014

The Preserve at Broad Creek - Retrofit of SWM pond and SPSC to be complete in January 2015.

Bywater Branch – 2,000 linear feet of stream restoration to be constructed in 2015

2014 – 2015 Implementation Milestones (Other)

- Remove 4,000 sq.ft. of impervious surface

STATUS: During this reporting period the County removed a total of 4,163 square feet of impervious surface. This impervious surface was removed as part of the Pekin Road Bridge Demolition Project. Asphalt pavement was removed from both the east and west sides of the bridge and replaced with sod. This area totaled 3,623 square feet. The bridge deck, covered in asphalt pavement, over Rock Creek was removed. This area totaled 468 square feet. The east abutment was removed and a new abutment was constructed that resulted in an additional reduction of 72 square feet of impervious cover.