

Frederick County 2016 - 2017 Programmatic Two-Year Implementation Milestones and Interim Progress Reporting

Target Date	Milestone	Deliverable	Lead Agency	Comments/Status Updates
Frederick County Government - WWTP				
July 1, 2012 to June 30, 2014	Ballenger-McKinney WWTP (MD0021822) ENR upgrade	WWTP ENR upgrade	Frederick County Government-DUSWM	Complete – MDE Certified increased capacity at 15 MGD in April 2016. Annual ENR limitations have been met since FY2016.
July 1, 2013 to June 30, 2014	White Rock WWTP (MD0025089) Replacement	WWTP Replacement	Frederick County Government-DUSWM	Design, permitting, and procurement complete with construction notice to proceed issued in May 2014. Replacement plant is operational.
July 1, 2013 to June 30, 2014	Mill Bottom WWTP (MD0065439) Upgrade	WWTP Upgrade	Frederick County Government-DUSWM	Notice to Proceed issued May 2014. Original upgrade work is complete but additional improvements may be required.
July 1, 2016 to June 30, 2017	Lewistown School WWTP (MD0022900) ENR Upgrade	WWTP Upgrade	Frederick County Government-DUSWM	Design underway. Ranked 13 th on Federal FY2017 & State FY2019 Clean Water Funds (State Revolving Loan/ State Grant) Priority List
July 1, 2016 to June 30, 2017	Lewistown Wastewater Collection System	Septic Consolidation	Frederick County Government-DUSWM	Ranked 12 th on Federal FY2017 & State FY2019 Clean Water Funds (State Revolving Loan/ State Grant) Priority List
July 1,	Reich's Ford Landfill Leachate	System Consolidation	Frederick County	NPDES discharge permit

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2013 to June 30, 2014	Plant (MD0061093) System Consolidation		Government-DUSWM	terminated July, 2013. System tied in to Ballenger-McKinney collection system where this flow will now receive ENR level treatment. Waste Load Allocations (WLA) for nitrogen and phosphorus from this facility to be transferred to Ballenger-McKinney WWTP when its permit is renewed in 2016. Permit administratively extended by MDE and renewal still ongoing.
July 1, 2013 to June 30, 2014	Libertytown WWTP (MD0060577) System Consolidation	System Consolidation	Frederick County Government-DUSWM	NPDES discharge permit terminated March 31, 2014. System tied in to Ballenger-McKinney collection system where this flow will now receive ENR level treatment. Waste Load (WLA) for nitrogen and phosphorus from this facility to be transferred to Ballenger-McKinney WWTP when its permit is renewed in 2016. Permit administratively extended by MDE and renewal still ongoing.
	Monrovia WWTP (MD059609) System Consolidation	System Consolidation	Frederick County Government-DUSWM	NPDES discharge permit terminated July 9, 2015. System tied in to Ballenger-McKinney collection system

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				<p>where this flow will now receive ENR level treatment. Waste Load (WLA) for nitrogen and phosphorus from this facility to be transferred to Ballenger-McKinney WWTP when its permit is renewed in 2016. Permit administratively extended by MDE and renewal still ongoing.</p>
	<p>New Market WWTP (MD0020729) System Consolidation</p>	<p>System Consolidation</p>	<p>Frederick County Government-DUSWM</p>	<p>NPDES discharge permit terminated July 9, 2015. System tied in to Ballenger-McKinney collection system where this flow will now receive ENR level treatment. Waste Load (WLA) for nitrogen and phosphorus from this facility to be transferred to Ballenger-McKinney WWTP when its permit is renewed in 2016. Permit administratively extended by MDE and renewal still ongoing.</p>
<p>July 1, 2012 to June 30, 2013</p>	<p>Sanitary Sewer Overflow (SSO) Reduction</p>	<ul style="list-style-type: none"> • Sewage Pump Station Upgrades <ul style="list-style-type: none"> ○ College Run SPS Upgrade Study ○ Ceresville SPS Pump Analysis Study • Sewer Line Televised Inspection Program <ul style="list-style-type: none"> ○ All sewer lines 10” and larger 	<p>Frederick County Government-DUSWM</p>	<ul style="list-style-type: none"> • College Run SPS Upgrade is complete. Ceresville SPS study is complete and headworks design is underway. • I & I studies are ongoing. Staff change has created a shift in

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		<ul style="list-style-type: none"> • Sewer Line Cleaning <ul style="list-style-type: none"> ○ Main Lines ○ Laterals • Inflow and Infiltration Projects <ul style="list-style-type: none"> ○ Greenview and West New Market ○ Point of Rocks ○ Jefferson ○ Monocacy ○ Ballenger ○ Buckeystown ○ Linganore 		<p>methodology as outside consultants may be needed.</p>
<p>July 1, 2013 to June 30, 2014</p>	<p>Sanitary Sewer Overflow (SSO) Reduction</p>	<ul style="list-style-type: none"> • Sewage Pump Station Upgrades <ul style="list-style-type: none"> ○ Limestone Lane SPS Replacement • Sewer Line Televised Inspection Program <ul style="list-style-type: none"> ○ Follow up to large diameter inspection program • Sewer Line and Manhole Replacements <ul style="list-style-type: none"> ○ Ballenger • Sewer Line Cleaning <ul style="list-style-type: none"> ○ Main Lines ○ Laterals • Inflow and Infiltration Projects <ul style="list-style-type: none"> ○ Crestview ○ Cloverhill ○ Discovery • Root Control Projects <ul style="list-style-type: none"> ○ White Rock ○ Countryside ○ Farmbrook • Smoke Testing 	<p>Frederick County Government-DUSWM</p>	<ul style="list-style-type: none"> • Limestone Lane SPS replacement project is complete. • Fountaindale collection system had 17 infiltration leaks repaired via trenchless point repair. • Three broken lines were repaired on the Fountaindale collection system. • Libertytown collection system- repaired two major leaks. • Libertytown collection system- repaired infiltration in seven manholes. • White Rock collection system- lined three

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		<ul style="list-style-type: none"> ○ Discovery ○ Cloverhill 		<p>manholes and repaired three big leaks on main lines.</p> <ul style="list-style-type: none"> ● Annual root control contract for 21,355 feet of main line and 173 laterals. ● Televised inspection of 44,744 feet of main line and 17,102 feet of sewer laterals.
<p>July 1, 2016 to June 30, 2017</p>	<p>Sanitary Sewer Overflow (SSO) Reduction</p>	<ul style="list-style-type: none"> ● Sewage Pump Stations & Upgrades <ul style="list-style-type: none"> ○ Point of Rocks WWTP IPS MCC upgrades ○ New SPS: Monacacy SPS and Force Main ● Sewer Improvements/Replacement <ul style="list-style-type: none"> ○ Crestview Estates Sewer Replacement ○ Monocacy Interceptor Structure Improvements ○ Tuscarora Manhole Repair ○ Pinehurst Esplanade Sewer Replacement ○ Leachate Collection System Improvements 	<p>Frederick County Government-DUSWM</p>	<ul style="list-style-type: none"> ● Point of Rocks upgrades are complete. ● Monocacy SPS & FM are under construction. ● Crestview Sewer replacement is under design. ● Monocacy Interceptor structure repair is complete. ● Tuscarora MH repair is complete. ● Pinehurst sewer is under design. ● Leachate sewer is under design. ● Crestview collection system has been inspected five times during rain events during the last twelve months. ● Eighteen infiltration

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				<p>leaks were repaired in the Crestview collection system via trenchless point repair.</p> <ul style="list-style-type: none"> • Sewer lateral replace in Crestview Estates • Two hundred feet of sewer gravity main line was replaced in Crestview due to infiltration issues.
Frederick County Government - Septics				
2016	Septic Denitrification	184 BRF septic upgrades, 218 BAT septics installed	Frederick County Division of Health Services	184 septic upgrades have taken place in partnership with the Canaan Valley Institute. 218 tanks were installed with Best Available Technology as of July 1, 2016.
2016	Septic Connections to WWTP	7 septic upgrades to sewer	Frederick County Government	Septic connections to sewer
2017	Septic Pumpout rebate	Develop rebate program to encourage septic pumping	Frederick County Government	In development
Frederick County Government – Urban Stormwater – Project Development				
11/12/2010	Pinecliff Park Stream Rest	10 impervious acres	Frederick County Government	Complete
1/1/2010	Public Safety Training Facility	15 impervious acres	Frederick County Government	Complete
1/1/2012	Citizens Care and Rehab	25.16 impervious acres	Frederick County Government	Complete
12/1/2014	Englandtowne Stream Rest	7.3 impervious acres	Frederick County Government	Complete
12/1/2013	Urbana Community Park	0.26 impervious acres	Frederick County	Complete

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	ESDSW		Government	
12/1/2013	Cooperative Extension Building ESDRG	0.25 impervious acres	Frederick County Government	Complete
5/15/2013	Orchard Grove Elementary School FOREST PLANTING	0.32 impervious acres	Frederick County Public Schools	Complete
4/1/2013	Spring Ridge Elementary School FOREST PLANTING	1.05 impervious acres	Frederick County Public Schools	Complete
4/1/2013	Crestwood Middle School FOREST PLANTING	0.79 impervious acres	Frederick County Public Schools	Complete
9/1/2012	Parkway Elementary School FOREST PLANTING	0 impervious acres	Frederick County Public Schools	Complete
8/1/2012	Pinecliff Park FOREST PLANTING	0.79 impervious acres	Frederick County Government	Complete
5/15/2012	Woodsboro Elementary School FOREST PLANTING	0 impervious acres	Frederick County Public Schools	Complete
3/30/2012	Woodsboro Community Park FOREST PLANTING	0 impervious acres		Complete
12/1/2011	Windsor Knolls Middle School FOREST PLANTING	4.56 impervious acres	Frederick County Public Schools	Complete
8/30/2011	Urbana Elementary School FOREST PLANTING	0.13 impervious acres	Frederick County Public Schools	Complete
7/1/2011	Rivermist Park FOREST PLANTING	0 impervious acres	Frederick County Government	Complete
4/1/2011	Old National Pike Park FOREST PLANTING	1.83 impervious acres	Frederick County Government	Complete
9/1/2010	West Frederick Middle FOREST PLANTING	0 impervious acres	Frederick County Public Schools	Complete
7/1/2010	Worthington Manor Golf Course FOREST PLANTING	0 impervious acres	Frederick County Government	Complete
5/1/2010	GTJ Middle School FOREST PLANTING	0 impervious acres	Frederick County Public Schools	Complete
5/1/2010	Windsor Knolls Elementary FOREST PLANTING	4.7 impervious acres	Frederick County Public Schools	Complete
Complete				

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4/6/2010	Brunswick High School FOREST PLANTING	0.37 impervious acres	Frederick County Public Schools	Complete
4/1/2010	Catoctin Mountain Park FOREST PLANTING	2.15 impervious acres	Catoctin Mountain National Park	Complete
5/1/2009	Emmitsburg Elementary School FOREST PLANTING	0 impervious acres	Frederick County Public Schools	Complete
4/27/2009	Urbana Community Park FOREST PLANTING	0.9 impervious acres	Frederick County Government	Complete
4/22/2009	Oakdale Elementary School FOREST PLANTING	0 impervious acres	Frederick County Public Schools	Complete
4/7/2009	Middletown High School FOREST PLANTING	0.16 impervious acres	Frederick County Public Schools	Complete
5/31/2008	Urbana Middle School FOREST PLANTING	0.46 impervious acres	Frederick County Public Schools	Complete
5/15/2008	Liberty Village FOREST PLANTING	0.7 impervious acres	Frederick County Government	Complete
4/12/2008	Mt. Airy Village Gate Park FOREST PLANTING	1 impervious acres		Complete
4/1/2008	Valley Elementary School FOREST PLANTING	0.79 impervious acres	Frederick County Public Schools	Complete
12/1/2007	Urbana Elementary School ESDSW	0.004 impervious acres	Frederick County Public Schools	Complete
11/1/2007	Mountain Village HOA FOREST PLANTING	1.22 impervious acres	Frederick County Government	Complete
11/1/2007	Ballenger Creek Elementary School FOREST PLANTING	0.58 impervious acres	Frederick County Public Schools	Complete
10/10/2007	Holly Hills Country Club FOREST PLANTING	5.79 impervious acres	Frederick County Government	Complete
10/10/2007	Holly Hills HOA FOREST PLANTING	0.44 impervious acres	Frederick County Government	Complete
5/20/2007	Deer Crossing Elementary School FOREST PLANTING	1.09 impervious acres	Frederick County Public Schools	Complete
5/1/2007	Cloverhill FOREST PLANTING	0.51 impervious acres	Frederick County Government	Complete

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4/26/2007	Utica Park FOREST PLANTING	0.29 impervious acres	Frederick County Government	Complete
4/1/2007	Libertytown Park FOREST PLANTING	1.56 impervious acres	Frederick County Government	Complete
4/1/2007	Wolfsville Elementary FOREST PLANTING	0.41 impervious acres	Frederick County Public Schools	Complete
3/31/2007	Mt. Airy East West Park FOREST PLANTING	1.43 impervious acres		Complete
1/1/2007	Monocacy Elementary School FOREST PLANTING	0.04 impervious acres	Frederick County Public Schools	Complete
10/31/2006	St. Peter the Apostle Church FOREST PLANTING	0.2 impervious acres	Frederick County Government	Complete
7/1/2006	New Market Middle School FOREST PLANTING	1.22 impervious acres	Frederick County Government	Complete
2017	Creek ReLeaf	Create reforestation, easement acquisition and 5 year maintenance program on private property. First applications due in 2017 with plantings scheduled for 2018.	Frederick County Government	Site selection in progress.
2017	Little Hunting Creek Stream Restoration	900 lf	Frederick County Government	Early design phase
2017	County Owned Ponds Retrofit	6 ponds treatment TBD	Frederick County Government	In design
2017	County Owned Ponds Retrofit	4 ponds treatment TBD	Frederick County Government	Land acquisition
2017	Point of Rocks Stream Restoration and Pond Retrofit	4,000 lf stream	Frederick County Government	Stream at 60% design
2017	Lower Monocacy Watershed Assessment	Assessment	Frederick County Government	Complete, needs public review
2017	Upper Monocacy Watershed Assessment	Assessment	Frederick County Government	Complete, needs public review
2017	Point of Rocks Storm Drain Network Analysis	Assessment	Frederick County Government	Complete, needs public review
2017	Urbana Pond Retrofits	15 pond retrofits on private property treatment TBD	Frederick County Government	90% design

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2017	Extension Services Site Retrofit	Cooperative Extension building and grounds treatment TBD	Frederick County Government	Design
2017	Englandtowne Pond Retrofit		Frederick County Government	Complete
Frederick County Government – Urban Stormwater – Program Development				
12/31/2015	Control non-point source pollution by implementation of low-cost residential best management practices (BMPs) for stormwater, and landscape urban nutrient management practices that will help improve local water quality.	Eliminate water-body impairments in the Lower Monocacy watershed at the neighborhood catchment scale. Visit homes with contractor to develop a “Green Infrastructure Plan” (BRP) for 50 of 1640 homes in the Peter Pan Run drainage, including urban nutrient management and other homeowner-scale GI practices Implement neighborhood-scale BMPs using the third party contractor. Treat 9.18 acres to reduce pollutant loads by 28.7 pounds of nitrogen, and 1.98 pounds of phosphorus per year; and 718.1 pounds of nitrogen, and 49.5 pounds of phosphorus over 25 years.	Frederick County Government	Complete
2015	Database Assessment and Needs	Recommendations for stormwater and BMP database improvements that include TMDL tracking.	Frederick County Government	Complete
2015	Website Upgrade	A planned upgrade of the public communications for sustainability and watershed issues	Frederick County Government	In progress
2015	Maintenance Needs and Assessment	Recommendations for maintenance process improvements for county-owned SW facilities.	Frederick County Government	Complete
2014-2015	Monocacy and Catoctin Watershed Alliance Coordination	Coordination of outreach project for water quality and habitat	Frederick County Government	Ongoing
9/1/2017	NFWF Innovative Nutrient and	Educate at least 100 homeowners about	Frederick County	Complete

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	Sediment Grant- Education of homeowners	urban stormwater management. Complete 74 homeowner scale stormwater audits and urban nutrient management and 64 installs.	Government	
2017	Green Leader Brigade	Create volunteer service program for bay improvements. Organize stream cleanup win 2017 with Alice Ferguson foundation, storm drain stenciling.	Frederick County Government	Complete. Ongoing program offerings. Fall 2017: Tree ID, Tree Plantings
2017	Scoop your Poop	County's pet waste stations at Parks to be augmented by educational campaign, surveys, pet waste bags and fobs, additional stations, and other enhanced pet waste elements.	Frederick County Government	Ongoing.
2017	Stream Report Cards	Stream Report Cards report on conditions of waterways in Frederick County using the results of the Frederick County Stream Survey, a water quality monitoring program base on the Maryland Biological Stream Survey.	Frederick County Government	Fall 2017 issue
2017	Green Homes Challenge	Continue to enroll and certify homes in the Green Homes Challenge. Green Leader challenge includes homeowner scale stormwater actions. www.frederickgreenchallenge.org .	Frederick County Government	Ongoing
2016	Stormwater Restoration Plan	On July 1, 2016, the County issued a Stormwater Restoration Plan that included an impervious cover restoration plan for its NPDES MS4 permit, as well as TMDL restoration plans for local and Bay TMDLs.	Frederick County Government	Complete
2016	Financial Assurance Plan, Watershed Restoration and Protection Plan Annual Report	Frederick County Government submitted these plans by June 30, 2016 as required by the MD Legislature.	Frederick County Government	Complete
2017	Illicit Discharge Detection and Elimination	Updated IDDE Plan and new ordinance for right of entry and enforcement.	Frederick County Government	Under development in 2017
City of Frederick – Urban Stormwater – Project Development				

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2014-2015	Planting Forest Buffer	52 acres of trees planted through DNR Grant (2.9 miles of stream with forest 100 ft. buffering)	City of Frederick	Complete
2014-2015	Stormwater retrofits in redevelopment projects	116.4 acres treated with stormwater retrofits	City of Frederick	Approved Site Plans approx. 2010 -2014
2015	Stormwater retrofit – Culler Lake	55 ac drainage area (Impervious area = 18 ac)	City of Frederick	Complete
Annual	Street Sweeping	8500 miles of street per year	City of Frederick	Lower numbers due to harsh winters in FY14.
Annual	Leaf Collection	300 miles of streets (3mo.)	City of Frederick	
Annual	Channel Restoration	650 tons of sediment removed	City of Frederick	Inlet cleaning, swales, culverts, and center channel of Carroll Creek at Bentz St.
As completed by developer	Stormwater BMPs	General SWM reporting	City of Frederick	Submitted to MDE by NOCC form
Quarterly	Stormwater fee		City of Frederick	2014 SWM fee ordinance, revised fee based on impervious area. Fee may be used for future SWM retrofits.
2017	Rock Creek Stream Restoration	1200 lf of stream restored	City of Frederick	Design complete; waiting for construction grant funding
2017	Public Works, Stormwater	Inlets inspected – 189, Inlets cleaned – 87, Inlets repaired – 33, Manholes inspected – 79, Manholes repaired – 1, Inspected SWMP's – 260 private, 40 city owned.	City of Frederick	
8/1/2017	Public Works, Stormwater	3100 lbs collected from stormceptor to Culler Lake	City of Frederick	Cleaning will be provided on a triannual basis, 8/1/2017 is

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				the first sump cleaning since installation of the unit.
City of Frederick – Urban Stormwater - Programs				
Annual	Utility bill mailers on flood hazard		City of Frederick	Topics on stream dumping, flooding topics, stormwater topics
2016	Watershed Management Plan - Identification of stream impairments & SWM retrofits	Satisfying NPDES permit requirements	City of Frederick	Tuscarora, Rock, Carroll Creek watershed basins
5/6/2017	Stream Clean-up at Fishing Creek and Tuscarora Creek.	3,840 Lbs collected and 49 participants	City of Frederick	
2/8/2017	Provide Forestry Education (Webinar)	Engaged 27 participants from Sustainable Maryland residential tree planting.	City of Frederick	
3/25/2017	Invasive plant removal in Waterford Park	Engaged 21 participants to remove plants in a City park near a stream	City of Frederick	
6/10/2017	Stream Clean-up at Carroll Creek	300 Lbs collected and 3 participants	City of Frederick	
7/30/2017	Invasive plant removal in Waterford Park	Engaged 4 participants to remove plants in a City park near a stream		
7/11/2017	Carroll Creek Clean-up	340 cy of debris removed	City of Frederick	
City of Frederick – Gas House Pike WWTP – Enhanced Nutrient Removal Upgrade Project (ENR)				
Dec 2016	Substantial Completion of Upgrade Project	Project Completion Nitrogen: before ENR 316,586 #/yr after ENR 97,411 #/yr net removed 219,175 #/yr or 69% Phosphorus: before ENR 48,705 #/yr after ENR 7,305 #/yr net removed 41,400 #/yr or 85%	City of Frederick	Construction began in the spring of 2015. Construction is estimated to be 75% complete and the anticipated completion date for the project is later in 2018.
Nonprofit projects				
2014-2015	Potomac Conservancy – Urban Stormwater – Project Planning Restore Beaver Dam Creek by	Restoration on up to 14 large agricultural properties along the length of the Creek	Potomac Conservancy	Grant funding has been secured for designs and restoration on one property

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	working with individual landowners to implement in-stream and riparian buffer restoration			to be completed by Spring 2015. Landowners have expressed interest on the adjoining property and funds are being sought. Outreach efforts will target the remaining 12 property owners along the creek.
2017-2018	Center for Watershed Protection – Urban Stormwater – Project Planning Town of New Market Stormwater Retrofit Plan	A list of potential retrofitting opportunities within the Town of New Market	Center for Watershed Protection	Submitting for grant funds
2017-2018	Town of New Market pond retrofit	Design for retrofit of the Town’s fire pond, which treats an estimated 26 acres (9.5 impervious acres).	Center for Watershed Protection	Submitting for grant funds
2015	7 Eleven Frederick - Forest buffer	150 trees, .5 ac	Stream-Link Education	Complete
2015	Bowers Farm - Forest buffer on Glade Creek	1100 trees, 1.7 ac	Stream-Link Education	Complete. Tree planting in partnership with Chesapeake Conservation Corps and Frederick County
2015	Rivermist Park - Forest buffer on Monocacy River	500 trees, 1.7 ac	Stream-Link Education	Complete. Funded by a grant from the Chesapeake Bay Trust
2016	Trimmers Farm - Forest buffer on unnamed tributary to the Monocacy River	1050 trees, 4.5 ac	Stream-Link Education	Complete
2016	Amber Meadows HOA - Forest buffer on unnamed tributary to the Monocacy Rver	400 trees, 2.75 ac	Stream-Link Education	Complete. Funded by a grant from the Chesapeake Bay Trust
2016	Crum Farm - Forest buffer on Glade Creek	325 trees, 2.6 ac	Stream-Link Education	Complete. Funded by Patagonia and the Alliance for Community Trees

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2016	Clearstory - Forest buffer on Monocacy River	80 trees, .3 ac	Stream-Link Education	Complete. Funded by City of Frederick
2016	Bridge Site - Forest buffer on Monocacy River	300 trees, 1 ac	Stream-Link Education	Complete. Funded by City of Frederick
4/16/2007	New Forest Society Nursery FOREST PLANTING	0 impervious acres	New Forest Society	Complete
4/1/2007	Fred Archibald Sanctuary FOREST PLANTING	2.58 impervious acres	Audubon Naturalist Society	Complete

Frederick County 2016-2017 BMP Implementation Milestones and Interim Milestone Progress Reporting

Action	Proposed Restoration Rates (2-years)	Actual Rate for 2016-2017	% Progress
Bioretention/raingardens	2 ac	2.8 ac	140%
Bioswale	9 ac	0 ac	0%
Dry Detention Ponds and Hydrodynamic Structures	9 ac		Historical BMPs previously submitted; included in this submission are restoration projects
Impervious Urban Surface Reduction	88 ac	.1 ac	No program
MS4 Permit - Stormwater Retrofit	7 ac	116.4 ac	1663%
Urban Filtering Practices	1165 ac	0 ac	No program
Urban Forest Buffers	114 ac	128.05 ac	112.3%
Urban Tree Planting; Urban Tree Canopy	53 ac	52 ac	98.11%
Vegetated Open Channel - Urban	134 ac	0	No program
Wet Ponds and Wetlands	0 ac	58.8 ac	Exceeds goal
Urban Nutrient Management	3699 ac/yr	100 ac	In addition to statewide regulation. Note MD will not count UNM towards Bay restoration.
Street Sweeping Pounds	120225 lbs/yr	0 lbs/yr	New CBP protocols do not match county protocols
Urban Stream Restoration / Shoreline Erosion Control	756 lf	2340 lf	310%
Septic Denitrification outside of the Critical Area, not within 1000 ft of a perennial stream	0 Systems	184 systems	Exceeds goal
Septic Denitrification Within 1000 ft of a perennial	0 Systems		

stream			
Septic Connections to Sewer	0 systems	7 systems	Exceeds goal
Municipal Wastewater	60,000 lbs N reduced, 3,000 lbs P		Exceeds goal
Gravel Road Retrofit	0 lf	7391 lf	Exceeds goal
Rain Barrels	0 Barrels	200 Barrels	Exceeds goal

This submittal is a demonstration of a seemingly technically viable way based on limited information of how targets might be met. Note that this demonstration has not been selected or adopted by the locality at this time and is simply a technical analysis of one theoretical option that may not be viable as a practical matter due to a variety of reasons. Frederick County Government and other entities represented here expressly reserve the right to change this analysis at any time for any reason in the sole determination of the locality. It is an analysis, not a plan or commitment. Frederick County Government intends to maintain its current pace as resources allow and intends to increase implementation activities as future resources may allow.