COUNTY COUNCIL

OF

HARFORD COUNTY, MARYLAND

Resolution No. 13-018

Legislative Session Day 18-021

September 11, 2018

Introduced by Council President Slutzky at
the request of the County Executive

A RESOLUTION providing for the approval of the Financial Assurance Plan, a copy of which is attached hereto, for the Harford County national pollutant discharge elimination system Phase I municipal separate storm sewer system permit and for submission of the Plan to the Maryland Department of the Environment for its review.

Harford County Finanical Assurance Plan (September 7, 2018)

MS4 Information	
Jurisdiction	Harford County
Contact Name	Christine Buckley
Phone	(410) 638-3217 extension 1176
Address	212 S. Bond Street
City	Bel Air
State	MD
Zip	21014
Email	cmbuckley@harfordcountymd.gov
Baseline Impervious Surface Untreated (Acres)	11,094
Permit Number	11-DP-3310
Reporting Year	FY2018

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Harford County Finanical Assurance Plan (September 7, 2018)

Article 4-202.1(j)(1)(i)1: Actions that will be required of the county or municipality to meet the requirements of its National Pollutant Discharge Elimination System Phase I Municipal Separate Storm Sewer System Permit.

Untreated impervious surfaces (acres) or baseline: 11,094 **Impervious surface restoration (ISR) requirement:** 20%

RESTORATION TYPE	CLASS	IMPERVIOUS ACRES	COST[1,2]	% ISR COMPLETE	STATUS	PROJECTED YEAR[3]
Operational Programs						
(SEPP) Septic Pumping	A	300	$0	2.7%	Planning	FY19
(SEPP) Septic Pumping	A	300	$0	2.7%	Planning	FY20
(SEPP) Septic Pumping	A	300	$0	2.7%	Planning	FY21
(SEPP) Septic Pumping	A	300	$0	2.7%	Planning	FY22
(SEPP) Septic Pumping	A	300	$0	2.7%	Planning	FY23
Average Operations Next Two Years (FY2019-FY2020)***		300.0	$0	2.7%		
Average Operations Permit Term (FY2010-FY2020)***		308.2	$0	2.8%		
Average Operations Permit Term and Projected Years (FY2010-FY2022)***		306.6	$0	2.8%		

Capital Projects						
(SEPC) Septic Connections to WWTP	A	1	$18,000	0.0%	Complete[4]	FY18
(SEPC) Septic Connections to WWTP	A	1.6	$18,000	0.0%	Planning	FY19
(SEPC) Septic Connections to WWTP	A	4.3	$50,000	0.0%	Planning	FY20
(SEPC) Septic Connections to WWTP	A	0.4	$4,500	0.0%	Planning	FY21
(SEPC) Septic Connections to WWTP	A	30.4	$351,000	0.3%	Planning	FY22
(SEPC) Septic Connections to WWTP	A	3.9	$45,000	0.0%	Planning	FY23
(SEPD) Installation of new BAT on existing septic Denitrification	A	5	N/A	0.0%	Complete[4]	FY18
(SEPD) Installation of new BAT on existing septic Denitrification	A	5	N/A	0.0%	Planning	FY19
(SEPD) Installation of new BAT on existing septic Denitrification	A	5	N/A	0.0%	Planning	FY20
(SEPD) Installation of new BAT on existing septic Denitrification	A	5	N/A	0.0%	Planning	FY21
(SEPD) Installation of new BAT on existing septic Denitrification	A	5	N/A	0.0%	Planning	FY22
(SEPD) Installation of new BAT on existing septic Denitrification	A	5	N/A	0.0%	Planning	FY23
(FPU) Tree Plantings	A	1.5	$45,000	0.0%	Planning	FY19
(FPU) Tree Plantings	A	1.5	$45,000	0.0%	Planning	FY20
(FPU) Tree Plantings	A	1.5	$45,000	0.0%	Planning	FY21

(FPU) Tree Plantings	A	1.5	$45,000	0.0%	Planning	FY22
(FPU) Tree Plantings	A	1.5	$45,000	0.0%	Planning	FY23
(WPWS) Retrofit of existing stormwater pond	S	2.6	$262,600	0.2%	Complete[4]	FY18
(WPWS) Retrofit of existing stormwater pond	S	1.6	$161,600	0.0%	Complete[4]	FY18
(STRE) Stream restoration	A	10.6	$1,100,000	0.0%	Complete[4]	FY18
(FBIO) New bioretention facility	S	0.3	$160,000	0.0%	Complete[4]	FY18
(APRP) Permeable Pavers	A	0.1	$100,000	0.0%	Complete[4]	FY18
(STRE) Stream restoration	A	37	$1,100,000	0.3%	Complete[4]	FY18
(FPU) Tree planting	A	1.3	$60,000	0.0%	Complete[4]	FY18
(IBAS) Retrofit of existing stormwater pond	S	1.6	$106,000	0.0%	Complete[4]	FY18
(FBIO) New bioretention facility	S	0.2	$12,000	0.0%	Complete[4]	FY18
(FPU) Tree planting	A	0.2	$39,000	0.0%	Complete[4]	FY18
(STRE) Stream restoration	A	38	$1,150,000	0.3%	Complete[4]	FY18
Stormwater Retrofit	S	3	$200,000	0.0%	Under Construction	FY19
(STRE) Stream Restoration	A	30	$2,100,000	0.3%	Under Construction	FY19
(STRE) Stream Restoration	A	3	$100,000	0.0%	Design complete	FY19

(STRE) Stream Restoration	A	30	$700,000	0.3%	Design complete	FY19
(PMED / PWED /WEDW / WSHW) Stormwater Retrofit	S	3	$225,000	0.0%	Planning	FY19
(PMED / PWED /WEDW / WSHW) Stormwater Retrofit	S	3	$225,000	0.0%	Planning	FY19
(STRE) Stream Restoration	A	28	$1,100,000	0.3%	Design complete	FY20
(PMED / PWED /WEDW / WSHW) Stormwater Retrofit	S	5	$300,000	0.0%	Design complete	FY20
(STRE) Stream Restoration	A	26	$2,200,000	0.2%	Design Complete	FY20
(PMED / PWED /WEDW / WSHW) Stormwater Retrofit	S	6	$600,000	0.1%	Design Complete	FY20
(STRE) Stream Restoration	A	20	$1,500,000	0.2%	Under Design	FY20
(PMED / PWED /WEDW / WSHW) Stormwater Retrofit	S	4	$300,000	0.0%	Under Design	FY20
(STRE) Stream Restoration	A	22	$2,000,000	0.2%	Under Design	FY20
(STRE) Stream Restoration	A	8	$900,000	0.1%	Under Design	FY20
(STRE) Stream Restoration	A	15	$800,000	0.1%	Under Design	FY20
(PMED / PWED /WEDW / WSHW) Stormwater Retrofit	S	5	$400,000	0.0%	Under Design	FY20
(STRE) Stream Restoration	A	30	$2,100,000	0.3%	Under Design	FY20
(STRE) Stream Restoration	A	20	$1,200,000	0.2%	Under Design	FY20
(STRE) Stream Restoration	A	30	$1,500,000	0.3%	Under Design	FY20

(STRE) Stream Restoration	A	20	$1,200,000	0.2%	Under Design	FY21
(STRE) Stream Restoration	A	33	$2,000,000	0.3%	Planning	FY21
(PMED / PWED /WEDW / WSHW) Stormwater Retrofit	S	3	$300,000	0.0%	Planning	FY21
(STRE) Stream Restoration	A	11	$600,000	0.1%	Planning	FY21
(STRE) Stream Restoration	A	120	$6,000,000	1.1%	Planning	FY22
(PMED / PWED /WEDW / WSHW) Stormwater Retrofit	S	15	$800,000	0.1%	Planning	FY22
(STRE) Stream Restoration	A	120	$6,000,000	1.1%	Planning	FY23
(PMED / PWED /WEDW / WSHW) Stormwater Retrofit	S	15	$800,000	0.1%	Planning	FY23
Subtotal Capital Next Two Years (FY2019-FY2020)		309.9	$18,608,000	2.8%		
Subtotal Capital Permit Term (FY2010-FY2020)		603.52	$30,129,200	5.5%		
Subtotal Capital Permit Term and Projected Years (FY2010-FY2023)		994.72	$48,364,700	9.0%		

Other						
Nutrient Trading with WWTP		1331	$0	12.0%	Planning	FY20
Subtotal Other Next Two Years (FY2019-FY2020)		1331	$0	12.00%		
Subtotal Other Permit Term (FY2010-FY2020)		1331	$0	12.0%		
Subtotal Other Permit Term and Projected Years (FY2010-FY2023)		1331	$0	12.0%		
Total Next Two Years (FY2019-FY2020)		**1940.9**	**$18,608,000**	**17.5%**		
Total Permit Term (FY2010-FY2020)		**2242.8**	**$30,129,200**	**20.3%**		
Total Permit Term and Projected Years (FY2010-FY2023)		**2632.3**	**$48,364,700**	**23.8%**		

[1] Cost is the total cost for the project including planning, design, and construction.

[2] Cost is not related to annual fiscal costs. Planning, design, and construction typically do not occur within a single fiscal year.

[3] Projected year is the year the project is constructed.

[4] Costs and impervious acres treated are preliminary.

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Harford County Finanical Assurance Plan (September 7, 2018)

Article 4-202.1(j)(1)(i)2: Projected annual and 5-year costs for the county or municipality to meet the impervious surface restoration plan requirements of its National Pollutant Discharge Elimination System Phase I Municipal

	CURRENT PERMIT TERM							
DESCRIPTION	**THRU FY17[1]**	**FY 2018**	**FY 2019**	**FY 2020**	**FY 2021**	**FY 2022**	**FY 2023**	**TOTAL**
Operating Expenditures								
Street Sweeping Program								$0
Inlet Cleaning								$0
Support of Capital Projects		$200,000	$250,000	$300,000	$350,000	$400,000	$450,000	$1,950,000
Debt Service Payment		$240,000	$400,000	$600,000	$800,000	$1,000,000	$1,200,000	$4,240,000
Other	-	-	-	-	-	-	-	$0
Capital Expenditures								
General Fund (Paygo)								$0
WPR Fund (Paygo)		$5,120,000	$6,900,000	$9,700,000	$5,700,000	$7,500,000	$7,500,000	$42,420,000
Debt Service								$0
Grants & Partnerships		$3,000,000	$2,100,000	$2,500,000	$2,500,000	$2,500,000	$2,500,000	$15,100,000
Other	-	-	-	-	-	-	-	$0
Subtotal operation and paygo:	$0	$5,560,000	$7,550,000	$10,600,000	$6,850,000	$8,900,000	$9,150,000	$48,610,000
Total expenditures:	**$0**	**$8,560,000**	**$9,650,000**	**$13,100,000**	**$9,350,000**	**$11,400,000**	**$11,650,000**	**$63,710,000**

Total ISR[2] costs except debt service: $59,470,000

Compare ISR[2] costs (except debt service) / total ISRP proposed actions: 123%

[1] Harford County has not provided this information because it is beyond the rquirments of the statute.

Harford County Finanical Assurance Plan (September 7, 2018)

Article 4-202.1(j)(1)(i)3: Projected annual and 5-year revenues or other funds that will be used to meet the cost for the county or municipality to meet the impervious surface restoration plan requirements under the National Pollutant Discharge Elimination System Phase I Municipal Separate Storm Sewer System Permit.

	CURRENT PERMIT TERM								
DESCRIPTION	**THRU FY17[1]**	**FY 2018**	**FY 2019**	**FY 2020**	**FY 2021**	**FY 2022**	**FY 2023**	**FY 19-20***	**TOTAL**
Annual Revenue Appropriated for ISR[2]		$11,210,000	$11,732,500	$11,447,500	$11,637,500	$11,827,500	$12,017,500	$23,180,000	$69,872,500
Annual Costs towards ISR[2]		$8,560,000	$9,650,000	$13,100,000	$9,350,000	$11,400,000	$11,650,000	$22,750,000	$63,710,000

Compare revenue appropriated / annual costs: **102%**

WPRP 2018 Reporting Criteria **100%**

[1] Harford County has not provided this information because it is beyond the requirements of the statute.

[2] Impervious Surface Restoration

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Harford County Finanical Assurance Plan (September 7, 2018)

Article 4-202.1(j)(1)(i)4: Any sources of funds that will be utilized by the county or municipality to meet the requirements of its National Pollutant Discharge Elimination System Phase I Municipal Separate Storm Sewer System Permit.

	Current MS4 Permit Term							
SOURCE	**THRU FY17[1]**	**FY 2018**	**FY 2019**	**FY 2020**	**TOTAL**	**FY 2021**	**FY 2022**	**FY 2023**
Paygo Sources								
Stormwater Remediation Fees (WPR Fund)					$ -			
Miscellaneous Fees (WPR Fund)					$ -			
General Fund (Salaries)		$ 1,300,000	$ 1,300,000	$ 1,500,000	$ 4,100,000	$ 1,600,000	$ 1,700,000	$ 1,800,000
Other (Recordation Tax)		$ 500,000	$ 400,000	$ 400,000	$ 1,300,000	$ 400,000	$ 400,000	$ 400,000
Subtotal Paygo Sources	$ -	$ 1,800,000	$ 1,700,000	$ 1,900,000	$ 5,400,000	$ 2,000,000	$ 2,100,000	$ 2,200,000
Debt Service								
County Transportation Bonds					$ -			
General Obligation Bonds		$ 5,800,000	$ 6,050,000	$ 6,150,000	$ 18,000,000	$ 6,250,000	$ 6,350,000	$ 6,450,000
Revenue (Utility) Bonds					$ -			
State Revolving Loan Fund					$ -			
Public-private partnership (debt service)					$ -			
Subtotal Debt Service	$ -	$ 5,800,000	$ 6,050,000	$ 6,150,000	$ 18,000,000	$ 6,250,000	$ 6,350,000	$ 6,450,000
Grants and Partnerships[3]								
State funded grants		$ 4,050,000	$ 4,150,000	$ 3,550,000	$ 11,750,000	$ 3,550,000	$ 3,550,000	$ 3,550,000
Federal funded grants		$ 150,000	$ 450,000	$ 450,000	$ 1,050,000	$ 450,000	$ 450,000	$ 450,000
Public-private partnership (matched grant)					$ -			
Subtotal Grants and Partnerships	$ -	$ 4,200,000	$ 4,600,000	$ 4,000,000	$ 12,800,000	$ 4,000,000	$ 4,000,000	$ 4,000,000
Total Annual Sources of Funds	**$ -**	**$11,800,000**	**$12,350,000**	**$12,050,000**	**$ 36,200,000**	**$12,250,000**	**$12,450,000**	**$12,650,000**
Percent of Funds Directed Toward ISR[2]		**95.00%**	**95.00%**	**95.00%**		**95.00%**	**95.00%**	**95.00%**

Compare total permit term paygo ISR[2] costs / subtotal permit term paygo sources: 439%

Compare total permit term ISR[2] costs / total permit term annual sources of funds: 86%

[1] Harford County has not provided this information because it is beyond the requirements of the statute.

[2] Impervious Surface Restoration

[3] Grants anticipated

[3] Funding includes programs or portions of programs required by the MS4 in addition to ISR such as illicit discharge.

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Harford County Finanical Assurance Plan (September 7, 2018)

Article 4-202.1(j)(1)(i)5: Specific actions and expenditures that the county or municipality implemented in the previous fiscal years to meet its impervious surface restoration plan requirements under its National Pollutant Discharge Elimination System Phase I Municipal Separate Storm Sewer System Permit.

Baseline Acres: 11,094 **Requirement:** 20%

RESTORATION ID	TYPE	CLASS	NUMBER	IMP[1] ACRES	BUILT DATE	COST	% ISR[2] Complete	STATUS	COMMENTS
Operational Programs									
Septic Pumping	SEPP	A	10,011	300.3	FY18	$0	2.7%	Complete	
Septic Pumping	SEPP	A	9,889	296.7	FY17	$0	2.7%	Complete	
Septic Pumping	SEPP	A	10,299	309.0	FY16	$0	2.8%	Complete	
Septic Pumping	SEPP	A	9,388	281.7	FY15	$0	2.5%	Complete	
Septic Pumping	SEPP	A	10,055	301.7	FY14	$0	2.7%	Complete	
Septic Pumping	SEPP	A	9,486	284.6	FY13	$0	2.6%	Complete	
Septic Pumping	SEPP	A	10,450	313.5	FY12	$0	2.8%	Complete	
Septic Pumping	SEPP	A	12,785	383.6	FY11	$0	3.5%	Complete	
Septic Pumping	SEPP	A	12,536	376.1	FY10	$0	3.4%	Complete	
Septic Pumping	SEPP	A	8,397	251.9	FY09	$0	2.3%	Complete	
Average Operations Complete To Date*			10,330	310		$0	2.8%		

Capital Projects									
Retrofit of existing stormwater pond	WPWS	S	1	3.66	FY17	$530,000	0.0%	Complete	
Retrofit of existing stormwater pond	(WPWS)	S	4	8.4	FY17	$250,000	0.1%	Complete	
Stream restoration	(STRE)	A	1	19.6	FY17	$600,000	0.2%	Complete	
Stream restoration	STRE	A	1	20.9	FY17	$900,000	0.2%	Complete	
New pocket wetland	WPWS	S	1	0.3	FY17	$13,000	0.0%	Complete	
Retrofit of existing stormwater pond	WPWS	S	1	8.66	FY16	$580,000	0.1%	Complete	
Retrofit of existing stormwater pond	PMED	S	1	12	FY16	$390,000	0.1%	Complete	
Retrofit of existing stormwater pond	MSGW	S	1	0.8	FY16	$82,000	0.0%	Complete	
New bioretention facility	FBIO	S	1	0.6	FY15	$100,000	0.0%	Complete	
Stream restoration	STRE	A	1	12.4	FY15	$550,000	0.1%	Complete	
Stream restoration	STRE	A	1	12.1	FY14	$570,000	0.1%	Complete	
Retrofit of existing stormwater pond	WEDW	S	1	3.8	FY14	$240,000	0.0%	Complete	
Retrofit of existing stormwater pond	WEDW	S	1	4.8	FY14	$320,000	0.0%	Complete	
Stream restoration	STRE	A	1	7.3	FY13	$320,000	0.1%	Complete	
Retrofit of existing stormwater pond	WPWS	S	1	11.7	FY12	$520,000	0.1%	Complete	

Stream restoration	STRE	A	1	4.7	FY12	$220,000	0.0%	Complete	
New bioretention facility	FBIO	S	1	0.9	FY11	$160,000	0.0%	Complete	
New bioretention facility	STRE	A	1	0.6	FY11	$180,000	0.0%	Complete	
Stream restoration	STRE	A	1	16.8	FY11	$380,000	0.2%	Complete	
New bioretention facility	FBIO	S	1	0.6	FY11	$110,000	0.0%	Complete	
Tree planting	FPU	A	2	1.2	FY15	$26,000	0.0%	Complete	
Tree planting	FPU	A	3	1.8	FY15	$50,000	0.0%	Complete	
Tree planting	FPU	A	4	3.2	FY14	$81,000	0.0%	Complete	
Tree planting	FPU	A	4	1.8	FY14	$56,000	0.0%	Complete	
Tree planting	FPU	A	1	0.8	FY13	$24,000	0.0%	Complete	
Septic Connection to WWTP	SEPC	A	4	1.6	FY15	N/A	0.0%	Complete	Bay Restoration Fund
Septic Connection to WWTP	SEPC	A	2	0.8	FY14	N/A	0.0%	Complete	Bay Restoration Fund
Septic Connection to WWTP	SEPC	A	1	0.4	FY13	N/A	0.0%	Complete	Bay Restoration Fund
Septic Connection to WWTP	SEPC	A	1	0.4	FY12	N/A	0.0%	Complete	Bay Restoration Fund
Installation of new BAT on existing septic Denitrification	SEPD	A	39	10.1	FY15	N/A	0.1%	Complete	Bay Restoration Fund
Installation of new BAT on existing septic Denitrification	SEPD	A	43	11.2	FY14	N/A	0.1%	Complete	Bay Restoration Fund

Installation of new BAT on existing septic Denitrification	SEPD	A	23	6	FY13	N/A	0.1%	Complete	Bay Restoration Fund
Installation of new BAT on existing septic Denitrification	SEPD	A	8	2.1	FY12	N/A	0.0%	Complete	Bay Restoration Fund
Demolition of townhouse community	IMPP	A	1	2.1	FY11	N/A	0.0%	Complete	Costs not available
Subtotal Capital Complete To Date			159	194.12		$7,252,000	1.75%		
Other									
							0.0%		
Subtotal Other Complete To Date			0	0		$0	0.0%		
Total Complete to Date			**10,489**	**504.0**		**$7,252,000**	**4.5%**		

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Harford County NPDES Phase 1 MS4
Financial Assurance Plan

September 7, 2018

As required by the Annotated Code of Maryland ENV §4-202.1(j), Harford County has prepared the following Financial Assurance Plan ("FAP") which demonstrates the County's projected strategy for addressing the County's NPDES Phase I MS4 permit. By its nature, the FAP is a planning document. The County expressly reserves the right to make future changes to the FAP based on new or additional information or based on available funding consistent with an adaptive management approach.

Background

The Clean Water Act, significantly revised in 1972, established the National Pollutant Discharge Elimination System program ("NPDES") for facilities that discharge pollutants into navigable waters. Before discharging pollutants from a point source (for example, a pipe or outfall), a facility must apply for and receive an NPDES permit.

The 1987 Clean Water Act amendments updated the law to require permits for discharges from certain Municipal Separate Storm Sewer Systems ("MS4s"). Per federal regulations, MS4s serving a population over 100,000 were required to submit a two-phase application for an individual five-year NPDES MS4 permit. This group of MS4s is called Phase I MS4s.

Maryland has been delegated the authority to adminster the NPDES program by the U.S. Environmental Protection Agency ("EPA"). The Maryland Department of the Environment ("MDE") is the state agency that oversees this delegated authority. Harford County received its first MS4 permit on May 17, 1994 and received reissued permits on August 13, 1999, November 1, 2004 and December 30, 2014.

Maryland House Bill 987, *"Stormwater Management – Watershed Protection and Restoration Program"*, was approved in 2012 and codified into State law. This bill required all counties and municipalities subject to a Phase I MS4 permit to establish a stormwater remediation fee to fund the implementation of each jurisdiction's MS4 permit. Maryland Senate Bill 863, *"Watershed Protection and Restoration Programs – Revisions"*, was approved in 2015 and codified into State law. This bill amended the Environment Code by (1) removing the requirement for each jurisdiction subject to a Phase I MS4 permit to establish a stormwater remediation fee and (2) adding the requirement for each jurisdiction to file a financial assurance plan.

Introduction

Harford County recognizes the need to improve water quality in the Chesapeake Bay and in impaired local Harford County streams. We also recognize through the NPDES MS4 permitting program, the responsibility of local governments to participate in the restoration of our waters.

Harford County, however, reiterated throughout the permit issuance process leading to the December 30, 2014 reissuance of our MS4 permit, that the permit requirements exceed Harford County's maximum extent practicable ("MEP"), considering both limited financial capabilities and short timeframes for implementation. MEP is the legal compliance standard for MS4s established by the Clean Water Act. This FAP should be read in the context of the County's continuing concern that its current MS4 permit demands a level of effort beyond legal requirements. The County expressly reserves its right to an MS4 permit that imposes no more than an MEP level of effort.

Program Capacity

Since the reissuance of Harford County's MS4 permit, the County has increased both staff and financial capacity for the implementation of the MS4 program.

The MS4 program is administered through the Department of Public Works, Office of Watershed Protection and Restoration, with support from other departments throughout the County government, and supplemental staff from consultants. Additionally, Harford County utilizes various partnerships with outside agencies such as Maryland Department of Natural Resources and U.S. Geological Survey to accomplish permit requirements.

In FY2018, Harford County began collaborating with the Chesapeake Bay Trust to provide funding to Harford County applicants under their Outreach and Restoration Grant. The purpose of this collaboration is to engage non-profit groups such as churches in managing and implementing restoration projects.

In FY2018, Harford County also began collaborating with the University of Maryland Extension to initiate a Watershed Stewards Academy. The purpose of the Watershed Stewards Academy is to train citizens to engage their local communities. In May 2018, ten Watershed Stewards completed their training and began pursuing opportunities to provide outreach to the community and investigating opportunities for small-scale restoration projects.

In addition to increased staff capacity, Harford County continues to utilize and expand the use of open-end contracts for design and design / build in order to complete watershed restoration projects as quickly as is practicable. Focusing watershed restoration projects on County-owned properties has likewise assisted in this regard.

In March 2015, the County Council passed Resolution 005-15 to dedicate a portion of the County's recordation tax in the amount of $1.10 per $1,000 of consideration beginning with fiscal year 2016 ("FY2016") to be dedicated to the implementation of watershed protection and restoration projects. Most of the dedicated funds will be used to pay debt services for future bonds.

Prior to FY2016, the County had no dedicated funding source for the implementation of capital improvement projects for the MS4 program. With the establishment of a dedicated funding source in 2015 and a commitment to issue bonds, a systematic strategy for addressing the requirements of the MS4 program and more specifically the watershed restoration component of the MS4 permit is in place. This level of dedicated funding also allows for the design and construction of larger scale restoration projects that can benefit from economies of scale to maximize restoration benefits per cost.

A summary of the capital budgets for the implementation of the MS4 permit for approved FY2018 and FY2019 and proposed FY2020 is listed below.

	Approved FY2018	Approved FY2019	Proposed FY2020
Paygo[1]	$0.5 M	$0.4 M	$0.4 M
Future Bonds[2]	$5.8 M	$6.05 M	$6.15 M
Proposed Grants	$4.2 M	$4.6 M	$4.0 M
Total	$10.5 M	$11.05 M	$10.55 M

Footnotes:

[1] Source of funding is recordation tax

[2] Debt services on future bonds to be paid from recordation tax

Within the General Fund, fifteen (15) full time positions were approved for FY2019 for the implementation of the MS4 program including the following:

Staff Funded under the Watershed Protection and Restoration Program - $1.6 M

MS4 Office - 4

Erosion and Sediment Control / Stormwater Plans Review – 5

Erosion and Sediment Control / Stormwater Construction Inspections – 5

Stormwater Maintenance Inspections – 1

Additional funding was approved for FY2019 to continue contracting for supplemental staff for the following:

Supplemental Staff under the Watershed Protection and Restoration Program – $0.25 M

MS4 Office – 0.4

Stormwater Construction Inspections – 1

Stormwater Maintenance Inspections - 1

The budgets discussed above do not include the full costs to implement the MS4 permit. Many of the programs required under the MS4 permit exist within other county departments and divisions such as property management, pollution prevention, and litter and floatables, to mention a few. In addition, future grants have not been secured but are rather estimates of grant awards based projected availability.

Impervious Area Assessment

In December 2015, as required in Part IV E.2.a. of the MS4 permit, the County submitted an impervious surface area assessment consistent with the methods described in the MDE document *"Accounting for Stormwater Wasteload Allocations and Impervious Acres Treated, Guidance for National Pollutant Discharge Elimination System Stormwater Permits" (MDE, June 2014)*.

Part 1.B of the MS4 permit correctly defines the MS4 permit area. Outside of the permit, MDE has expressed a more expansive interpretation of the regulated permit area. The County's assessment was conservatively based on MDE's interpretation. However, the County expressly reserves its rights to reduce the acreage associated with the impervious surface area assessment in Part IV.E.2.a. of the permit, which in turn impacts the County's restoration efforts during this permit term under Part IV.E.2.a, to the minimum acreage required by the permit. The County expressly reserves its rights to make refinements to its assessment as necessary in the future based upon new or additional information consistent with an adaptive management approach.

Furthermore, the County made no representation by submittal of the assessment that 20% of the acreage identified can be restored in the manner provided in Part IV.E.2.a considering financial capabilities and the short timeframes specified in Part IV.E.2.a. for the magnitude of work which the County maintains exceeds the legally-authorized maximum extent practicable (MEP) level of effort for the term of the permit. As noted above, the County expressly reserves its right to an MS4 permit that imposes no more than an MEP level of effort.

On April 6, 2016, MDE provided comments and requested additional information from the County they deemed necessary to approve the County's impervious surface area assessment. As directed, Harford County provided a response to their comments on August 1, 2016.

On February 14, 2017, MDE approved a portion of the requested credits and set the baseline for untreated impervious surfaces at 11,094 acres. Harford County is working towards collecting additional information to verify credits for 372 acres. Harford County is also working on identifying existing roadside grass swales that provide treatment. The County estimates approximately 150 additional acres can be removed from the baseline through treatment within the grass swales. These additional credits would reduce the County's baseline from 11,094 acres to 10,572 acres.

	Acres
Untreated impervious surfaces	11,094
WQ treatment through existing SWM	-187
Large lot (5 ac) impervious disconnect	-79
Watershed restoration (through 2009)	-106
Existing grass swales	-150
Adjusted untreated impervious surfaces	10,572

For the purposes of this financial assurance plan, Harford County has used 11,094 acres of impervious surfaces as untreated.

Watershed Restoration

Through FY2018, Harford County completed watershed restoration for 256 acres of impervious surfaces through design and construction of capital improvement projects including upgrading existing stormwater management facilities, constructing new stormwater management facilities, constructing stream restorations, and planting trees. The following table provides a summary for implementation of these projects:

	Acres
Watershed Restoration *(2009 through FY2017)*	162
Watershed Restoration *(FY2018)*	94
Watershed Restoration *(FY2019)*	73
Watershed Restoration *(FY2020)*	220
Total	549

Septic Systems

Harford County has also proposed alternative impervious surface restoration credits for connecting septic systems to the wastewater treatment plant and upgrading septic systems for denitrification. These programs are administered by the Harford County Health Department or Harford County Division of Water and Sewer. A portion of these projects are funded with Bay Restoration Funds. The Office of Watershed Protection and Restoration also provides funding for the connection of septic systems to the wastewater treatment plant. The following table provides a summary for implementation of these projects.

	Acres
Septic connections and upgrades *(2009 through FY2017)*	33
Septic connections and upgrades *(FY2018)*	6
Septic connections and upgrades *(FY2019)*	7
Septic connections and upgrades *(FY2020)*	9
Total	55

Additionally, Harford County has listed the annual practice of septic system pumping for 308 impervious acres. This represents an average annual volume of 10 million gallons delivered to the wastewater treatment plant from septic haulers.

Nutrient Trading

MDE recently adopted the Maryland Water Quality Trading Program regulations, which includes guidelines for MS4s to participate in nutrient trading to comply with impervious surface restoration permit requirements. One scenario includes trading with the County's wastewater treatment plant (WWTP). The trade would be temporary until the County is able to complete the watershed restoration. MDE's draft of the next MS4 permit includes provisions to complete by the end of the permit term all watershed restoration traded with the WWTP. Harford County is proposing to use WWTP credits to address the remaining watershed restoration for 12% of the watershed restoration for untreated impervious surfaces. This would be a temporary trade to allow the County to continue to build program capacity and complete projects within more realistic timeframes. Based on Harford County's estimate of approximately $55,000 per acre of impervious surface treated, this would cost approximately, $73 M.

Summary

Harford County has proposed a capital improvement program through the end of the MS4 permit term, FY2020, to address watershed restoration for 4.9% of the untreated impervious surface. An additional 0.5% from septic upgrades or connection to the wastewater treatment plant and 2.7% from annual septic pumping. An additional 12% will be provided through nutrient trading with the County's wastewater treatment plant. Enclosed are the spreadsheets developed by

MDE for submittal of the financial assurance plan. It should be noted that Harford County's MS4 permit expires on December 30, 2019.

WHEREAS, Harford County has been issued a national pollutant discharge elimination system Phase I municipal separate storm sewer system permit ("Permit") for discharges from its storm drain outfalls; and

WHEREAS, the Annotated Code of Maryland, Environment Article, §4-202.1(j)(1) requires that on or before July 1, 2016, and every 2 years thereafter on the anniversary of the date of issuance of its Permit, a county must file a Financial Assurance Plan describing its projected program for meeting permit requirements, including sources of revenue for the program; and

WHEREAS, the Annotated Code of Maryland, Environment Article, §4-202.1(j)(3) provides that the Financial Assurance Plan may not be filed until the local governing body of the county has held a public hearing and approved the Financial Assurance Plan.

NOW, THEREFORE, BE IT RESOLVED by the County Council of Harford County, Maryland, that the Financial Assurance Plan is hereby approved and shall be submitted to the Maryland Department of the Environment for its review.

ATTEST:

Mylia A. Dixon
Council Administrator

Richard C. Slutzky
President of the Council

ADOPTED: October 16, 2018

RESOLUTION NO. 013-18