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COUNTY COUNCIL
OF
HARFORD COUNTY, MARYLAND

Resolution No. 019-23

Legislative Session Day 23-007

March 7, 2023

Introduced by Council President Vincenti 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.

RESOLUTION NO. 019-23

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

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

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

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

ATTEST:

Mylia Dixon
Council Administrator

Patrick S. Vincenti
President of the Council

Robert G. Cassilly
County Executive

ADOPTED:

Harford County NPDES Phase 1 MS4 Financial Assurance Plan

February 2023

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 administer 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. MDE administratively extended the County’s permit which expired December 29, 2019. On December 20, 2022, MDE reissued the County’s permit. This FAP is based on the newly issued permit conditions.

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.

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, the County was able to develop a systematic strategy for addressing the requirements of the MS4 program. 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 for the project cost spent.

A summary of the capital budgets for the implementation of the MS4 permit for approved FY2022 and FY2023 and proposed FY2024 is listed below.

	Approved FY2022	Approved FY2023	Proposed FY2024
Paygo ¹	\$0.70 M	\$0.85 M	\$1.20 M
Future Bonds ²	\$6.75 M	\$8.45 M	\$8.60 M
Proposed Grants	\$4 M	\$2 M	\$2 M
Total	\$11.45 M	\$11.30 M	\$11.80 M

Footnotes:

¹ Source of funding is recordation tax

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

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 on projected availability.

Impervious Surfaces

Compliance for traditional NPDES permits is measured at the end of a discharge pipe. Specific metrics must be met daily to maintain compliance. Because MS4 permits cover thousands of stormdrain pipes, daily measurement of discharge is impractical. Therefore, MDE has selected untreated impervious surfaces as a surrogate parameter to measure MS4 permit compliance. Untreated impervious surfaces are hard surfaces constructed without stormwater management controls for water quality. Those areas were constructed prior to stormwater management water quality regulations adopted in Harford County in 2002, or areas that were constructed with stormwater management waivers or exemptions.

As required in Part IV E.2.a. of the previous MS4 permit, the County submitted an impervious surface 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). Subsequently, MDE approved the requested baseline for untreated impervious surfaces at 10,928 acres.

Watershed Restoration

Through permit expiration, or December 2019, Harford County completed watershed restoration for 719.5 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.

Septic Systems

MDE’s Guidance allows for alternative impervious surface restoration credits for septic systems. Through permit expiration, or December 2019, Harford County received additional credits for pumping of septic systems (153.4 acres), connecting septic systems to the wastewater treatment plant (34.2 acres) and upgrading septic systems for denitrification (63.2 acres). Credits for pumping septic systems are based on pumpouts completed by residents and businesses. Credits must be maintained annually or replaced with a watershed restoration as discussed above.

Nutrient Trading

In 2018, MDE 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). This type of trade is temporary until the County is able to complete the watershed restoration. Harford County’s draft permit includes provisions to complete, by the end of the next permit term, all watershed restoration traded with the WWTP, or 1,215 acres.

Summary

As of the end of the previous MS4 permit term, December 29, 2019, Harford County completed a capital improvement program which addressed watershed restoration for 6.6% of the untreated impervious surface. An additional 0.9% was achieved from septic upgrades or connection to the wastewater treatment plant and 1.4% from annual septic pumping. An additional 11% has been provided through nutrient trading with the County's wastewater treatment plant.

The County's newly reissued permit requires the restoration of 2,461 acres of untreated impervious surfaces or (1) continued annual credits for septic pumping (153 acres), (2) replacement of the nutrient trade with watershed restoration (1,215 acres), and (3) new watershed restoration (1,093 acres).

Enclosed are the spreadsheets developed by MDE for submittal of the financial assurance plan. The FAP covers fiscal years 2022 through 2027. The newly reissued permit expires December 29, 2027, midway through fiscal year 2028. Therefore, the FAP does not span the entire 5-year cycle for the newly reissued permit.

Harford County Financial Assurance Plan

MS4 Information	
Jurisdiction	Harford County
Contact Name	Christine Buckley
Phone	(410) 638-3217 extention 1176
Address	212 South Bond Street
City	Bel Air
State	MD
Zip	21014
Email	cmbuckley@harfordcountymd.gov
Continued Annual Alternative ISR (ac)	1369
Required ISR New Permit (ac)	1093
Total ISR (ac)	2461
Permit Num	22-DP-3310
Permit Period	12/30/2023 through 12/29/2027
Reporting (FY)	2022

Harford County Financial Assurance Plan

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.

Continued Annual Alternative ISR (ac)	1,369	56%
Required ISR New Permit (ac):	1,093	
Total ISR (ac):	2,461	

RESTORATION TYPE	IMPERVIOUS ACRES	% ISR GOAL	COSTS	STATUS	COMPLETION (FY)
Obligations from Previous Permit That Must Be Continued or Met					
Operational Programs (for previous permit)					
Septic System Pumping	70	5%	\$0	PLANNING	2023
Septic System Pumping	70	5%	\$0	PLANNING	2024
Septic System Pumping	70	5%	\$0	PLANNING	2025
Septic System Pumping	70	5%	\$0	PLANNING	2026
Septic System Pumping	70	5%	\$0	PLANNING	2027
Operations (FY23-24)	70	5%	\$0		
Operations (FY23-27)	70	5%	\$0		
Operations (FY20 - FY27)	70	5%	\$0		
Capital Projects (for previous permit)					
Conservation Landscaping	0	0%			2023
Conservation Landscaping	2.6	0%	\$142,450	PLANNING	2024
Conservation Landscaping	2.6	0%	\$142,450	PLANNING	2025
Conservation Landscaping	3	0%	\$162,800	PLANNING	2026
Conservation Landscaping	3	0%	\$162,800	PLANNING	2027
Forest Tree Planting	0	0%			2023
Forest Tree Planting	11	1%	\$605,000	PLANNING	2024
Forest Tree Planting	11	1%	\$605,000	PLANNING	2025
Forest Tree Planting	11	1%	\$605,000	PLANNING	2026
Forest Tree Planting	11	1%	\$605,000	PLANNING	2027
Tree Canopy Planting	0	0%			2023

Tree Canopy Planting	2.8	0%	\$154,000	PLANNING	2024
Tree Canopy Planting	2.8	0%	\$154,000	PLANNING	2025
Tree Canopy Planting	2.8	0%	\$154,000	PLANNING	2026
Tree Canopy Planting	2.8	0%	\$154,000	PLANNING	2027
Septic Connection	2.3	0%	\$45,000	PLANNING	2023
Septic Connection	2.3	0%	\$45,000	PLANNING	2024
Septic Connection	2.3	0%	\$45,000	PLANNING	2025
Septic Connection	2.3	0%	\$45,000	PLANNING	2026
Septic Connection	2.3	0%	\$45,000	PLANNING	2027
Stormwater Retrofit	3.3	0%	\$400,000	DESIGN	2023
Stormwater Retrofit	4.8	0%	\$400,000	PLANNING	2024
Stormwater Retrofit	14	1%	\$400,000	PLANNING	2025
Stormwater Retrofit	4	0%	\$400,000	PLANNING	2026
Stormwater Retrofit	4	0%	\$400,000	PLANNING	2027
Stream Restoration	87	6%	\$3,000,000	DESIGN	2023
Stream Restoration	164	12%	\$5,200,000	DESIGN	2024
Stream Restoration	364	27%	\$7,400,000	DESIGN	2025
Stream Restoration	100	7%	\$3,500,000	PLANNING	2026
Stream Restoration	0	0%	\$0	PLANNING	2027
Capital (FY23-FY24)	280	20%	\$9,991,450		
Capital (FY23-FY27)	823	60%	\$24,971,500		
Capital (FY20 - FY27)	1,304	95%	\$36,233,000		
Other (for previous permit)					
Nutrient Trade	725	N/A	\$0	PLANNING	2023
Nutrient Trade	538	N/A	\$0	PLANNING	2024
Nutrient Trade	141	N/A	\$0	PLANNING	2025
Nutrient Trade	18	N/A	\$0	PLANNING	2026
Other (FY23-FY24)			\$0		
Other (FY23-FY27)			\$0		
Other (FY20 - FY27)			\$0		

Obligations from Previous Permit That Must Be Continued or Met					
Total (FY23 - FY24)	350	26%	\$9,991,450		
Total (FY23 - FY27)	893	65%	\$24,971,500		
Total (FY20 - FY27)	1,374	100%	\$36,233,000		
Restoration for the New Permit					
Operational Programs					
		0%			
Operations (FY23-24)	0	0%	\$0		
Operations (FY23-27)	0	0%	\$0		
Operations (FY20 - FY27)	0	0%	\$0		
Capital Projects					
Stream Restoration	40	4%	\$1,000,000	PLANNING	2026
Stream Restoration	210	19%	\$5,250,000	PLANNING	2027
Capital (FY23-FY24)	0	0%	\$0		
Capital (FY23-FY27)	250	23%	\$6,250,000		
Capital (FY20 - FY27)	250	23%	\$6,250,000		
Other					
		0%			
Other (FY23-FY24)	0	0%	\$0		
Other (FY23-FY27)	0	0%	\$0		
Other (FY20 - FY27)	0	0%	\$0		
Restoration for the New Permit					
Total (FY23 - FY24)	0	0%	\$0		
Total (FY23 - FY27)	250	23%	\$6,250,000		
Total (FY20 - FY27)	250	23%	\$6,250,000		

Harford County Financial Assurance Plan

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 Separate Storm Sewer System Permit.

DESCRIPTION	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	TOTAL
Operating Expenditures (costs)							
Support of Capital Projects	\$400,000	\$475,000	\$525,000	\$600,000	\$675,000	\$725,000	\$3,400,000
Interest on Bonds	\$654,829	\$635,034	\$660,000	\$700,000	\$760,000	\$840,000	\$4,249,863
Capital Expenditures (costs)							
Support of Capital Projects	\$729,000	\$780,000	\$830,000	\$880,000	\$930,000	\$980,000	\$5,129,000
Design / Construction	\$2,478,000	\$9,340,000	\$8,220,000	\$5,190,000	\$6,970,000	\$6,970,000	\$39,168,000
Inspection	\$214,000	\$350,000	\$313,000	\$156,000	\$226,000	\$226,000	\$1,485,000
Construction Management	\$0	\$562,000	\$626,000	\$311,000	\$452,000	\$452,000	\$2,403,000
Monitoring (Waterway permit required)	\$32,000	\$258,000	\$271,000	\$210,000	\$315,000	\$315,000	\$1,401,000
Inspection (ISR verification)	\$0	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$100,000
Maintenance / Repairs	\$919,000	\$400,000	\$450,000	\$500,000	\$550,000	\$600,000	\$3,419,000
Grants & Partnerships ¹	\$0	-\$1,500,000	-\$1,500,000	-\$1,500,000	-\$1,500,000	-\$1,500,000	-\$7,500,000
Total expenditures:	\$5,426,829	\$11,320,034	\$10,415,000	\$7,067,000	\$9,398,000	\$9,628,000	\$53,254,863

1 - Grants are shown as negative values since they are included in costs above

Harford County Financial Assurance Plan

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.

DESCRIPTION	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY2023 - 2024	TOTAL
Annual Revenue Appropriated for ISRP	\$12,084,647	\$12,127,142	\$12,427,000	\$12,699,000	\$12,971,000	\$13,251,500	\$24,554,142	\$75,560,289
Annual Costs towards ISRP	\$5,426,829	\$11,320,034	\$10,415,000	\$7,067,000	\$9,398,000	\$9,628,000	\$21,735,034	\$53,254,863

Compare revenue appropriated / annual costs: 113%

Reporting Criteria: 100%

Harford County Financial Assurance Plan

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.

DESCRIPTION	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	TOTAL
Paygo							
Recordation Tax - capital	\$ 850,000	\$ 850,000	\$ 900,000	\$ 950,000	\$ 1,000,000	\$ 1,050,000	\$ 5,600,000
Recordation Tax - operating	\$ 1,962,403	\$ 2,332,192	\$ 2,450,000	\$ 2,580,000	\$ 2,710,000	\$ 2,850,000	\$ 14,884,595
Recordation Tax - interest	\$ 654,829	\$ 635,034	\$ 670,000	\$ 710,000	\$ 750,000	\$ 790,000	\$ 4,209,863
Bonds ¹							
General Obligation Bonds	\$ 6,750,000	\$ 8,450,000	\$ 8,600,000	\$ 8,700,000	\$ 8,800,000	\$ 8,900,000	\$ 50,200,000
Grants and Partnerships (Projected)							
Grants	\$ 4,000,000	\$ 2,000,000	\$ 2,000,000	\$ 2,000,000	\$ 2,000,000	\$ 2,000,000	\$ 14,000,000
Total Annual Sources of Funds	\$ 14,217,232	\$ 14,267,226	\$ 14,620,000	\$ 14,940,000	\$ 15,260,000	\$ 15,590,000	\$ 88,894,458
Percent of Funds Directed Toward ISRP	85%	85%	85%	85%	85%	85%	

1 - Annual principal payments on bonds are not included in the table.

Harford County Financial Assurance Plan

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.

Continued Annual Alternative ISR (ac)	1,369	56%
Required ISR New Permit (ac):	1,093	
Total ISR (ac):	2,461	

RESTORATION ID	RESTORATION TYPE	IMPERVIOUS ACRES	% ISR COMPLETE	COST	BUILT DATE	STATUS	GENERAL COMMENTS
Obligations from Previous Permit That Must Be Continued or Met							
Operational Programs (for previous permit)							
Septic System Pumping	Septic System Pumping	135.5	10%	\$0	2020	Complete	
Septic System Pumping	Septic System Pumping	95.7	7%	\$0	2021	Complete	
Septic System Pumping	Septic System Pumping	70.0	5%	\$0	2022	Complete	Estimated
Subtotal Operation		70.0	5%	\$0			
Capital Projects (for previous permit)							
HA22APY000032	Tree Canopy Planting	0.3	0%	\$80,000	2020	Complete	
Septic Connection	Septic Connection	0.8	0%	\$9,000	2020	Complete	
Septic Connection	Septic Connection	3.5	0%	\$40,500	2021	Complete	
Septic Connection	Septic Connection	6.2	0%	\$72,000	2022	Complete	
WP000033	Stormwater (Upgrade)	3.5	0%	\$0	2020	Complete	included in costs for stream restoration

WP000033	Stormwater (Upgrade)	2.2	0%	\$0	2020	Complete	included in costs for stream restoration	
WP000033	Stormwater (New)	6.6	0%	\$0	2020	Complete	included in costs for stream restoration	
WP000039	Stormwater (New)	6.2	0%	\$0	2020	Complete	included in costs for stream restoration	
WP000039	Stormwater (New)	0.6	0%	\$0	2020	Complete	included in costs for stream restoration	
WP000039	Stormwater (New)	0.4	0%	\$0	2020	Complete	included in costs for stream restoration	
WP000039	Stormwater (New)	1.0	0%	\$0	2020	Complete	included in costs for stream restoration	
WP000039	Stormwater (New)	1.6	0%	\$0	2020	Complete	included in costs for stream restoration	
WP000104	Stormwater (New)	0.7	0%	\$170,000	2020	Complete		
WP000102	Stormwater (Upgrade)	1.5	0%	\$300,000	2022	Complete		
WP000037	Stormwater (New)	4.4	0%	\$0	2022	Complete	included in costs for stream restoration	
HA20ALN000018	Stream Restoration	151.5	11%	\$1,900,000	2020	Complete	Includes costs for stormwater retrofit	
HA22ALN000023	Stream Restoration	82.6	6%	\$3,400,000	2020	Complete	Includes costs for stormwater retrofit	
HA21ALN000019	Stream Restoration	58.5	4%	\$790,000	2021	Complete		
HA22ALN000020	Stream Restoration	45.6	3%	\$1,500,000	2022	Complete		
HA22ALN000021	Stream Restoration	28.5	2%	\$1,100,000	2022	Complete	Includes costs for stormwater retrofit	
HA22ALN000022	Stream Restoration	75.2	5%	\$1,900,000	2022	Complete		
Subtotal Capital		481.4	35%	\$11,261,500				

Other (for previous permit)							
Nutrient Trade	Nutrient Trade	975	N/A	\$0	2020	Complete	
Nutrient Trade	Nutrient Trade	953	N/A	\$0	2021	Complete	
Nutrient Trade	Nutrient Trade	818	N/A	\$0	2022	Complete	
Subtotal Other				\$0			
Total (for previous permit)		551.4	40%	\$11,261,500			
Restoration for the New Permit							
Operational Programs							
			0%				
Subtotal Operations		0.0	0%	\$0			
Capital Projects							
			0%				
Subtotal Capital		0.0	0%	\$0			
Other							
			0%				
Subtotal Other		0.0	0%	\$0			
Total for New Permit		0.0	0%	\$0			