

Harford County Financial Assurance Plan (November 2022)

MS4 Information	
Jurisdiction	Harford County
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Continued Annual Alternative ISR (ac)	1369
Required ISR New Permit (ac)	1093
Total ISR (ac)	2461
Permit Num	TBD
Permit Period (FY)	TBD
Reporting (FY)	2022

**Check with MDE Geodatabase:**

Should match Permit info table of Geodatabase, except for ISR requirements for continuing alternative controls and additional- that should match permit language of E.1.b and E.3

**Check with Permit Language:**

Continued annual alternative ISR and required ISR new permit should match MS4 Permit condition E. Stormwater Restoration.

## Harford County Financial Assurance Plan (November 2022)

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		

**Check with MDE Geodatabase:**

Type, class, impervious acres, implementation cost and implementation status should match the various geodatabase tables for BMPs (AltBMPLine, AltBMPPoint, AltBMPPoly, and RestBMP)-- aggregated by type and status.

**Notes**

1. Use BMP domains from MDE Geodatabase.
2. % ISR Complete compared to continued annual alternative ISR.
3. Insert additional rows as necessary.
4. Impervious Acres are the average for the time period, Implementation Costs are totaled.
5. % ISR Complete compared to ISR new permit.

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Note: some retrofit costs are included with stream restoration

Harford County Financial Assurance Plan (November 2022)

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)							
Street Sweeping Program							\$0
Inlet Cleaning							\$0
IDDE							\$0
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
Debt Service Payment							\$0
Other							\$0

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
General Fund (Paygo)							\$0
WPR Fund (Paygo)							\$0
Debt Service							\$0
Grants & Partnerships <sup>1</sup>	\$0	-\$1,500,000	-\$1,500,000	-\$1,500,000	-\$1,500,000	-\$1,500,000	-\$7,500,000
Other							\$0
Subtotal operation and paygo:	\$1,054,829	\$1,110,034	\$1,185,000	\$1,300,000	\$1,435,000	\$1,565,000	\$7,649,863
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

Total ISRP costs except debt service:	\$53,254,863
Compare ISRP costs (except debt service) / total ISRP proposed actions for next five years:	171%
Total capital expenditures:	\$45,605,000
Compare total capital expenditures / total ISRP proposed actions capital costs for next five years:	146%

**Check with MDE**

**Geodatabase:**

The total current FY 2022 expenditure should be less than the combined total of the "OP\_cost" and "CAP\_Cost" fields in the fiscal analyses table of the geodatabase.

The total projected FY 2023 expenditure should be less than the combined total of the "OP\_budget" and "CAP\_budget" fields in the fiscal analyses table of the geodatabase.

**Notes:**

1. Debt service payments include debt service used to support capital projects from current and previous permit.
2. Insert additional rows as necessary.
3. Capital costs shown in FY 2021 include costs in FY 2021 and previous years, spent on capital projects attributed to the current permit. Total permit cycle includes the previous year.
4. Total cycle includes FY 2021 (costs associated with capital projects attributed to the current permit) to FY 2026

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## Harford County Financial Assurance Plan (November 2022)

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%

**Note**

1. Article 4-202.1(j)(2): Demonstration that county or municipality has sufficient funding in the current fiscal year and subsequent fiscal year budgets to meet its estimated cost for the 2-year period immediately following the filing date
2. Revenue means "dedicated revenues, funds, or sources of funds (per Article 4-202.1(j)(4)(ii)). Note that budget appropriations have only been approved by governing bodies through FY XX at the time of FAP reporting.
3. See table of ISRP Cost.



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

**Compare total permit term paygo ISRP costs / subtotal permit term paygo sources: 25%**

**Compare total ISRP expenditures / total permit term annual sources of funds: 31%**

\* WPR Fund: Watershed Protection and Restoration Fund.

**Check with MDE**

**Geodatabase:**

The total sources related to WPR Funds in Current FY 22 should march the "WPR\_Fund" field of the geodatabase.

**Note**

1. Previous accumulated revenue should be specifically designated for use for this current permit.

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## Harford County Financial Assurance Plan (November 2022)

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			

**Check with MDE Geodatabase:**

Rest BMP ID, type, class, number of BMPs, impervious acres, built date, implementation cost should match the various geodatabase tables for BMPs (AltBMPLine, AltBMPPoint, AltBMPPoly, and RestBMP)-- aggregated by type and status.

**Notes:**

1. Use BMP domains from MDE Geodatabase.
2. % ISR Complete compared to continued annual alternative ISR.
3. Insert additional rows as necessary.
4. Impervious Acres are the average for the time period, Implementation Costs are totaled.
5. % ISR Complete compared to ISR new permit.

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<b>Code Description</b>	<b>Code</b>
<b>Ponds</b>	
Micro-Pool Extended Detention Pond	PMED
Multiple Pond	PMPS
Pocket Pond	PPKT
Wet Extended Detention Pond	PWED
Wet Pond	PWET
<b>Wetlands</b>	
ED Shallow Wetland	WEDW
Pocket Wetland	WPKT
Pond Wetland System	WPWS
Shallow Marsh	WSHW
<b>Infiltration</b>	
Infiltration Basin	IBAS
Infiltration Trench	ITRN
Landscape Infiltration	MILS
Infiltration Berm	MIBR
Dry Well	MIDW
<b>Filtering Systems</b>	
Surface Sand Filter	FSND
Underground Filter	FUND
Perimeter Filter	FPER
Organic Filter	FORG
Pocket Filter	FPKT
Bioretention	FBIO
Submerged Gravel Wetland	MSGW
Micro-Bioretention	MMBR
Rain Garden	MRNG
Enhanced Filter	MENF
<b>Open Channel Systems</b>	
Dry Swale	ODSW
Wet Swale	OWSW
Bio-Swale	MSWB
Grass Swale	MSWG
Wet Swale	MSWW
<b>Alternative Surfaces</b>	
Green Roof - Extensive	AGRE
Green Roof - Intensive	AGRI
Permeable Pavement	APRP
Reinforced Turf	ARTF
<b>Nonstructural Techniques</b>	
Non-Rooftop Disconnect	NDNR
Rooftop Disconnect	NDRR
Sheetflow to Conservation Area	NSCA
<b>Other Systems</b>	
Rainwater Harvesting	MRWH

<b>Other Practices</b>	
Extended Detention Structure, Dry	XDED
Detention Structure (Dry Pond)	XDPD
Flood Management Area	XFLD
Oil Grit separator	XOGS
Other	OTH
<b>Alternative BMP</b>	
Mechanical Street Sweeping	MSS
Regenerative/Vacuum Street Sweeping (i.e., Advanced Street Sweeping)	VSS
Catch Basin Cleaning	CBC
Storm Drain Vacuuming (i.e., Storm Drain Cleaning)	SDV
Stream Restoration	STRE
Outfall Stabilization	OUT
Shoreline Management	SHST
Septic Connections to WWTP	SEPC
Septic Denitrification	SEPD
Septic Pumping	SEPP
Elimination of Discovered Nutrient Discharges from Grey Infrastructure	DGI
Floating Treatment Wetlands	XFTW
Impervious Surface Reduction (i.e., impervious to pervious)	IMPP
Impervious Surface to Forest (i.e., IMPP + FPU)	IMPF
Forestation on Pervious Urban (i.e., Forest Planting)	FPU
Conservation Landscaping	CLTM
Forest Conservation	FCO
Riparian Conservation Landscaping	RCL
Riparian Forest Planting	RFP
Street Trees	STCI
Urban Soil Restoration (Compacted Pervious Surfaces)	USRP
Urban Soil Restoration (Removed Impervious Surfaces)	USRI
Urban Tree Canopy (i.e., Pervious Turf to Tree Canopy over Turf)	UTC
Dry Channel Regenerative Step Pool Stormwater Conveyance System	SPSD

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