

COUNTY COUNCIL OF ANNE ARUNDEL COUNTY, MARYLAND

Legislative Session 2022, Legislative Day No. 16

Resolution No. 37-22

Introduced by Ms. Rodvien, Chair  
(by request of the County Executive)

By the County Council, September 6, 2022

1 RESOLUTION approving Anne Arundel County’s 2022 Financial Assurance Plan for  
2 compliance with the National Pollutant Discharge Elimination Phase I Municipal Separate  
3 Storm Sewer System Permit

4  
5 WHEREAS, § 4-202.1(j)(1) of the Environment Article of the State Code requires  
6 that every two years on the anniversary date of the issuance of a county’s National  
7 Pollutant Discharge Elimination Phase I Municipal Separate Storm Sewer System  
8 Permit (“NPDES MS4 Permit”), a county shall file a financial assurance plan with  
9 the Maryland Department of the Environment (“MDE”) regarding compliance with  
10 the county’s NPDES MS4 Permit; and

11  
12 WHEREAS, the anniversary date of the County’s NPDES MS4 Permit is  
13 November 5, 2022; and

14  
15 WHEREAS, § 4-202.1(j)(3) of the Environment Article of the State Code provides  
16 that a county may not file a financial assurance plan with the MDE until the local  
17 governing body of the county holds a public hearing on the financial assurance plan  
18 and approves the financial assurance plan; and

19  
20 WHEREAS, § 4-202.1(j)(1) of the Environment Article of the State Code requires  
21 that a financial assurance plan shall clearly identify: (1) actions that will be required  
22 by the county to meet the requirements of the NPDES MS4 Permit; (2) projected  
23 annual and five-year costs for the county to meet the impervious surface restoration  
24 plan requirements of its NPDES MS4 Permit; (3) projected annual and five-year  
25 revenues or other funds that will be used to meet the costs for the county to meet  
26 the impervious surface restoration plan requirements of its NPDES MS4 Permit;  
27 (4) any sources of funds that will be utilized by the county to meet the requirements  
28 of its NPDES MS4 Permit; and (5) specific actions and expenditures that the county  
29 implemented in the previous fiscal years to meet its impervious surface restoration  
30 plan requirements under its NPDES MS4 Permit; and

31  
32 WHEREAS, § 4-202.1(j)(4)(iii) of the Environment Article of the State Code  
33 provides that funding in the financial assurance plan is sufficient if it demonstrates  
34 that the county has dedicated revenues, funds, or sources of funds to meet, for the  
35 two-year period immediately following the filing date of the financial assurance  
36 plan, 100% of the projected costs of compliance with the impervious surface  
37 restoration plan requirements of the county under its NPDES MS4 Permit over that  
38 two-year period; and

1 WHEREAS, Anne Arundel County's 2022 Financial Assurance Plan, which  
2 addresses the requirements of § 4-202.1(j) of the Environment Article of the State  
3 Code has been prepared at the direction of and approved by the County Executive  
4 and is attached hereto as Exhibit A, and a certified copy of the "Anne Arundel  
5 County's 2022 Financial Assurance Plan" shall be permanently kept on file at the  
6 Department of Public Works; now, therefore, be it

7

8 *Resolved by the County Council of Anne Arundel County, Maryland, That Anne*  
9 *Arundel County's 2022 Financial Assurance Plan, attached hereto as Exhibit A, is hereby*  
10 *approved; and be it further*

11

12 *Resolved, That a copy of this Resolution be sent to County Executive Steuart Pittman*  
13 *and to Stewart Comstock, P.E. Chief, Program Review Division, Stormwater, Dam Safety,*  
14 *and Flood Management Program, Water and Science Administration, Maryland*  
15 *Department of the Environment.*

READ AND PASSED this 3<sup>rd</sup> day of October, 2022.

By Order:



Laura Corby  
Administrative Officer

I HEREBY CERTIFY THAT RESOLUTION NO. 37-22 IS TRUE AND CORRECT AND DULY  
ADOPTED BY THE COUNTY COUNCIL OF ANNE ARUNDEL COUNTY.



Lisa D. B. Rodvien  
Chair

# Anne Arundel County Financial Assurance Plan to Meet the Requirements of the NPDES Municipal Separate Storm Sewer System (MS4) Permit

*July 1, 2022*

## Executive Summary

### Introduction

Anne Arundel County's NPDES MS4 permit, issued November 5, 2021, requires that the County complete restoration efforts to achieve the equivalent of treating 2,998 acres of impervious surfaces not previously restored to the maximum extent practicable. In addition, the County must continue the same level of programmatic implementation for its annual alternative control practices, equivalent to 199 acres of impervious surface restored, to maintain compliance with the prior MS4 permit's restoration requirement.

The submission of Anne Arundel County's Financial Assurance Plan (FAP), as well as the submission of the Bureau of Watershed Protection and Restoration (BWPR) annual report, is required for compliance with the Maryland Annotated Code, Environment, § 4-202.1. The attached FAP is submitted to show that the County has the financial means to achieve the permit requirements. This FAP addresses the activities completed by the County's BWPR from FY21 through FY22, and the planned and programmed activities from FY23 through FY27.

The completion and submission of the FAP is required every two years. This, the first FAP under the County's new MS4 permit, is to be submitted on or before the December 31, 2022 due date for the MS4 permit annual progress report.

According to the requirements for completing the attached FAP, all restoration activities completed by June 30, 2022 are classified as completed and their actual costs are reported. These activities include a variety of projects with a variety of funding sources, as described below.

- Capital improvement projects (CIP) from the BWPR class that were completed in FY21 and FY22 were funded by Watershed Protection and Restoration Fund (WPRF) bonds. Additionally, supplemental funding was provided for various projects through grants and a select number of shoreline stabilization projects were funded through general fund County bonds.
- Street sweeping and inlet cleaning were funded out of the BWPR operating budget.

Other restoration actions include septic system connections to water reclamation facilities (WRFs), septic system upgrades to denitrification systems, and restoration projects completed by non-governmental organizations (NGO). Septic system connections to WRFs and septic system upgrades to denitrification systems are funded through Bay Restoration Fund (BRF) grants. Funding for restoration projects completed by NGOs include both County WPRF funds made available through the ongoing BWPR grant program, and grant funding to the NGOs from other

entities resulting in no cost to the County. Private individuals or communities also funded restoration projects. Comments are included in the FAP to denote the funding sources for completed projects where the implementation costs are noted as \$0.

Projections are also made for programmed projects that will be completed by June 30, 2027 (end of FY27). Programmed projects not completed by June 30, 2022 are classified as either under construction, planned, or proposed. Projects considered “under construction” were in the construction phase as of the end of FY22, and are anticipated to be complete at the end of FY23. “Planned projects” are those activities where a design contract has been issued by June 30, 2022. “Proposed projects” include restoration activities that had been identified by County project managers but design work has not been initiated. Projections are also included for the ongoing operating activities and other restoration actions, as well as the addition of septic pumping performed by local contractors. Septic pumping can provide credit for the County and requires no general fund or WPRF fund expenditures.

Included in the FAP are cost and revenue information. Costs identified include the operating costs for the BWPR, debt service on WPRF bonds, and the County’s BWPR grant program to fund restoration projects completed by NGOs for which the County takes equivalent impervious treatment credit. Actual costs are reported for FY21 through FY22, and budgeted costs are included for FY23 through FY27. These budgeted costs were obtained from the County Budget Office’s WPRF Affordability Model and Capital Budget Program.

#### **Sources of Funds to Meet the MS4:**

A variety of funding sources (revenue) are recognized in this FAP. WPRF revenues include actual stormwater remediation fee revenue amounts for FY21 through FY22, and projected revenues for FY23 through FY27. These revenue projections assume no stormwater remediation fee increases over this time frame and include an adjustment for a 1% increase in the collection of stormwater remediation fees due to development.

Grant sources include State-funded grants for CIP restoration projects (e.g., MD DNR Chesapeake Bay Trust Fund) as well as BRF grants. BWPR is actively pursuing additional grant opportunities for future projects, and it is anticipated that the use of grant funds will allow for the implementation of CIP restoration projects that are not currently included as part of this FAP.

The attached FAP indicates that approximately 3,754 acres, or 125%, of the County’s restoration will be completed by the end of FY26, the end of the current NPDES MS4 permit term. The restoration completed in exceedance of the County’s goal is due in large part to the accrual of credit while the County’s previous permit was administratively continued through FY21.

#### **Projected Annual and 5-Year Costs and Revenues to Meet the MS4:**

Total program projected restoration and MS4 compliance activity costs through FY27 are \$477 million, and \$486 million in revenue is expected, which demonstrates that the funding sources enumerated in the FAP are adequate to meet the permit requirements, treating approximately 3,470 impervious acres, which is estimated to be sufficient to cover the restoration requirements of the current MS4 permit and beyond.

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MS4 Information	
Jurisdiction	Anne Arundel County
Contact Name	Erik Michelsen
Phone	410-222-7520
Address	2662 Riva Road
City	Annapolis
State	MD
Zip	21401
Email	<a href="mailto:pwmich20@aacounty.org">pwmich20@aacounty.org</a>
Continued Annual Alternative ISR (ac)	199
Required ISR New Permit (ac)	2,998
Total ISR (ac)	3,197
Permit Num	20-DP-3316 MD0068306
Permit Period (FY)	2022-2027
Reporting FY	2022

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**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.

**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.**

Note: To identify all "actions" required under the MS4 permit, provide an executive summary of the jurisdiction's MS4 programs. See MDE's FAP Guidance. For proposed actions to meet the impervious surface restoration plan, fill in the table below.

**Continued Annual Alternative ISR (ac)            199       6%**  
**Required ISR New Permit (ac):                2,998**  
**Total ISR (ac):                                      3,197**

REST BMP TYPE <sup>1</sup>	BMP CLASS	IMPERVIOUS ACRES	% ISR GOAL	IMPLEMENTATION COSTS	IMPLEMENTATION STATUS	IMPLEMENTATION COMPLETION YEAR (FY)
<b>Obligations from Previous Permit That Must Be Continued or Met</b>						
<b>Operational Programs<sup>2,3</sup></b>						
CBC	A	37.5	19%	\$291,353	PLANNING	2023
CBC	A	37.5	19%	\$300,093	PROPOSED	2024
CBC	A	37.5	19%	\$309,096	PROPOSED	2025
CBC	A	37.5	19%	\$318,369	PROPOSED	2026
CBC	A	37.5	19%	\$327,920	PROPOSED	2027
SEPP	A	124.3	62%	\$0	PLANNING	2023
SEPP	A	124.3	62%	\$0	PROPOSED	2024
SEPP	A	124.3	62%	\$0	PROPOSED	2025
SEPP	A	124.3	62%	\$0	PROPOSED	2026
SEPP	A	124.3	62%	\$0	PROPOSED	2027
VSS	A	37.6	19%	\$372,313	PLANNING	2023
VSS	A	37.6	19%	\$383,483	PROPOSED	2024
VSS	A	37.6	19%	\$394,987	PROPOSED	2025
VSS	A	37.6	19%	\$406,837	PROPOSED	2026
VSS	A	37.6	19%	\$419,042	PROPOSED	2027
Operations Next Two Years (FY23-24) <sup>4</sup>		199	100%	\$1,347,242		
Operations Next Five Years (FY23-27) <sup>4</sup>		199	100%	\$3,523,493		
Operations Permit Term (FY22-26) <sup>4,6</sup>		249	1.25%	\$4,060,997		
<b>Capital Projects (Completed to Replace Annual Obligations)<sup>2,3</sup></b>						
		0	0%			
Subtotal Capital Next Two Years (FY23-24)		0	0%	\$0		
Subtotal Capital Next Five Years (FY23-27)		0	0%	\$0		
Subtotal Capital Permit Term (FY22-26) <sup>6</sup>		0	0%	\$0		
<b>Other (Completed to Replace Annual Obligations)<sup>2,3</sup></b>						
		0	0%			
Subtotal Other Next Two Years (FY23-24)		0	0%	\$0		
Subtotal Other Next Five Years (FY23-27)		0	0%	\$0		

Subtotal Other Permit Term (FY22-26) <sup>6</sup>		0	0%	\$0		
<b>Total Continued Obligations Next Two Years (FY23-24)</b>		<b>199</b>	<b>100%</b>	<b>\$1,347,242</b>		
<b>Total Continued Obligations Next Five Years (FY23-27)</b>		<b>199</b>	<b>100%</b>	<b>\$3,523,493</b>		
<b>Total Continued Obligations Permit Term (FY22-26)<sup>6</sup></b>		<b>249</b>	<b>125%</b>	<b>\$4,060,997</b>		
<b>Restoration for the New Permit</b>						
<b>Operational Programs<sup>3,5</sup></b>						
		0	0%			
Operations Next Two Years (FY23-24) <sup>4</sup>		0	0%	\$0		
Operations Next Five Years (FY23-27) <sup>4</sup>		0	0%	\$0		
Operations Permit Term (FY22-26) <sup>4,6</sup>		0	0%	\$0		
<b>Capital Projects<sup>3,5</sup></b>						
PWED	S	45.85	1.529%	\$3,923,270	UNDER CONST	2023
SEPC	A	113.50	3.786%	\$1,705,707	UNDER CONST	2023
FSND	S	25.94	0.865%	\$1,505,082	PLANNING	2023
IBAS	S	19.44	0.648%	\$1,951,031	PLANNING	2023
IMPP	A	0.02	0.001%	\$1,123	PLANNING	2023
MIBR	E	7.72	0.258%	\$1,261,438	PLANNING	2023
MSWG	E	0.13	0.004%	\$2,292,709	PLANNING	2023
PWET	S	5.07	0.169%	\$687,785	PLANNING	2023
SHST	A	12.95	0.432%	\$1,995,443	PLANNING	2023
SPSC	A	48.29	1.611%	\$11,917,917	PLANNING	2023
STRE	A	146.50	4.887%	\$5,683,024	PLANNING	2023
WEDW	S	18.13	0.605%	\$249,653	PLANNING	2023
WPWS	S	22.76	0.759%	\$2,064,584	PLANNING	2023
OUT	A	88.04	2.937%	\$3,056,516	PLANNING	2024
PWED	S	60.90	2.031%	\$762,491	PLANNING	2024
SPSC	A	65.85	2.196%	\$2,342,520	PLANNING	2024
STRE	A	353.01	11.775%	\$3,700,579	PLANNING	2024
OUT	A	0.39	0.013%	\$60,119	PLANNING	2025
PWED	S	22.51	0.751%	\$1,827,623	PLANNING	2025
SPSC	A	44.95	1.499%	\$1,317,347	PLANNING	2025
STRE	A	461.55	15.395%	\$18,159,995	PLANNING	2025
WEDW	S	40.20	1.341%	\$1,170,466	PLANNING	2025
STRE	A	410.95	13.707%	\$15,958,395	PLANNING	2026
OUT	A	40.46	1.350%	\$3,012,945	PROPOSED	2027
STRE	A	1150.83	38.387%	\$25,419,030	PROPOSED	2027
SPSC	A	7.43	0.248%	\$553,292	PROPOSED	2028
STRE	A	945.69	31.544%	\$50,783,262	PROPOSED	2028
<b>Subtotal Capital Next Two Years (FY23-24)</b>		<b>1,034</b>	<b>34%</b>	<b>\$45,100,873</b>		

Subtotal Capital Next Five Years (FY23-27)		3,206	107%	\$112,026,794		
Subtotal Capital Permit Term (FY22-26) <sup>6</sup>		3,428	114%	\$133,673,331		
<b>Other<sup>3,5</sup></b>						
SHST	S	100	3%	\$0	PLANNING	2023
SHST	S	35.02	1%	\$0	PLANNING	2024
SHST	S	14.33	0%	\$0	PLANNING	2024
SHST	S	8.2	0%	\$0	PLANNING	2025
SPSC	S	80.34	3%	\$0	PLANNING	2026
STRE	S	26.35	1%	\$0	PLANNING	2026
Subtotal Other Next Two Years (FY23-24)		149	5%	\$0		
Subtotal Other Next Five Years (FY23-27)		264	9%	\$0		
Subtotal Other Permit Term (FY22-26) <sup>6</sup>		326	11%	\$0		
<b>Total Next Two Years (FY23-24)</b>		<b>1,183</b>	<b>39%</b>	<b>\$45,100,873</b>		
<b>Total Next Five Years (FY23-27)</b>		<b>3,470</b>	<b>116%</b>	<b>\$112,026,794</b>		
<b>Total Permit Term (FY22-26)<sup>6</sup></b>		<b>3,754</b>	<b>125%</b>	<b>\$133,673,331</b>		

**Check with MDE Geodatabase:**

Type, class, impervious acres, implementation cost and implementation status should match the various geodatabase tables for BMPs

**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.

**Anne Arundel County Notes**

Version 6-22-22

6. Permit Term includes FY21 projects and credit completed after attainment of the County's 4th Generation MS4 Permit ISR goal, as shown in tab "Comp Actions 4-202.1(j)(1)(i)5".



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 II permit, which is a separate Storm Sewer System Permit.

DESCRIPTION	PREVIOUS YEAR FY 2021	CURRENT YEAR FY 2022	PROJECTED YEAR 1 FY 2023	PROJECTED YEAR 2 FY 2024	PROJECTED YEAR 3 FY 2025	PROJECTED YEAR 4 FY 2026	PROJECTED YEAR 5 FY 2027	TOTAL PERMIT CYCLE <sup>4</sup>
<b>Operating Expenditures (costs)</b>								
Street Sweeping Program	\$338,087	\$361,469	\$372,313	\$383,483	\$394,987	\$406,137	\$419,042	\$2,256,476
Inlet Cleaning	\$259,084	\$282,867	\$291,353	\$300,093	\$309,096	\$318,369	\$327,920	\$1,760,862
IDDE	\$92,719	\$78,529	\$76,568	\$76,568	\$76,568	\$76,568	\$79,586	\$477,519
Support of Capital Projects	\$11,505,110	\$11,822,935	\$11,417,966	\$11,638,568	\$11,865,321	\$12,097,104	\$12,328,879	\$70,347,005
Debt Service Payment <sup>1</sup>	\$8,567,100	\$10,445,000	\$11,455,600	\$13,526,443	\$15,818,619	\$18,381,739	\$21,251,817	\$78,194,501
Other (please stipulate program expenditure) <sup>2</sup>	-	-	-	-	-	-	-	\$0
<b>Capital Expenditures (costs)<sup>3</sup></b>								
General Fund (Paygo)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
WPR Fund (Paygo)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Debt Service	\$25,000,000	\$33,000,000	\$36,000,000	\$39,000,000	\$45,000,000	\$50,000,000	\$55,000,000	\$228,000,000
Grants & Partnerships	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$6,000,000
Other (please stipulate capital expenditure) <sup>2</sup>	-	-	-	-	-	-	-	\$0
Subtotal operation and paygo:	\$20,762,100	\$22,990,800	\$23,613,800	\$25,925,155	\$28,464,591	\$31,279,917	\$34,407,244	\$153,036,363
<b>Total expenditures:</b>	<b>\$46,762,100</b>	<b>\$56,990,800</b>	<b>\$60,613,800</b>	<b>\$65,925,155</b>	<b>\$74,464,591</b>	<b>\$82,279,917</b>	<b>\$90,407,244</b>	<b>\$387,036,363</b>

Total ISRP costs except debt service: \$308,841,862

Compare ISRP costs (except debt service) / total ISRP proposed actions for permit term: 231%

Total capital expenditures: \$234,000,000

Compare total capital expenditures / total ISRP proposed actions capital costs for permit term: 175%

**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 permit cycle includes FY 2021 (costs associated with capital projects attributed to the current permit) to FY 2026

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	PREVIOUS YEAR FY 2021	CURRENT YEAR FY 22	PROJECTED YEAR 1 FY 23	PROJECTED YEAR 2 FY 24	PROJECTED YEAR 3 FY 25	PROJECTED YEAR 4 FY 26	PROJECTED YEAR 5 FY 27	TOTAL NEXT 2-YEARS FY 23-24 <sup>1</sup>	TOTAL
Annual Revenue <sup>2</sup> Appropriated for ISRP	\$53,362,247	\$64,442,985	\$65,302,443	\$67,054,874	\$73,443,728	\$78,760,753	\$84,028,981	\$132,357,317	\$486,396,011
Annual Costs towards ISRP <sup>3</sup>	\$46,762,100	\$56,990,800	\$60,613,800	\$65,925,155	\$74,464,591	\$82,279,917	\$90,407,244	\$126,538,955	\$477,443,607

Compare revenue appropriated / annual costs: 105%  
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 of the FAP. Note that the appropriations and expenditures include time period up to FY 22.
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.

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.

SOURCE	PREVIOUS YEAR FY 2021	CURRENT YEAR FY 22	PROJECTED YEAR 1 FY 23	PROJECTED YEAR 2 FY 24	PROJECTED YEAR 3 FY 25	PROJECTED YEAR 4 FY 26	PROJECTED YEAR 5 FY 27	TOTAL PERMIT CYCLE
<b>Paygo Sources</b>								
Stormwater Remediation Fees (WPR Fund)	\$ 23,619,255	\$ 23,906,821	\$ 24,033,400	\$24,273,741	\$24,516,478	\$24,761,643	\$25,009,259	\$ 145,111,338
Miscellaneous Fees (WPR Fund)	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$ -
General Fund	\$ 2,874,354	\$ 3,979,639	\$ 1,995,443	\$-	\$-	\$-	\$-	\$ 8,849,436
Investment Income	\$ 132,468	\$ 108,512	\$ 443,600	\$861,133	\$827,250	\$749,110	\$619,722	\$ 3,122,073
Interfund Recoveries	\$ 909,170	\$ 720,313	\$ 1,080,000	\$ 1,170,000	\$ 1,350,000	\$ 1,500,000	\$ 1,650,000	\$ 6,729,483
Other Funds 3 (please stipulate funding source)	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$ -
Subtotal Paygo Sources	\$ 27,535,247	\$ 28,715,285	\$ 27,552,443	\$ 26,304,874	\$ 26,693,728	\$ 27,010,753	\$ 27,278,981	\$ 163,812,330
<b>Debt Service (paygo sources will be used to pay off debt service. Note that previous appropriations for debt service used for ISRP is listed in FY 2021).</b>								
County Transportation Bonds	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$ -
General Obligation Bonds	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$ -
Revenue (WPRF/BWPR) Bonds	\$ 25,000,000	\$ 33,000,000	\$ 36,000,000	\$ 39,000,000	\$ 45,000,000	\$ 50,000,000	\$ 55,000,000	\$ 228,000,000
State Revolving Loan Fund	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$ -
Public-private partnership (debt service)	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$ -
Subtotal Debt Service	\$ 25,000,000	\$ 33,000,000	\$ 36,000,000	\$ 39,000,000	\$ 45,000,000	\$ 50,000,000	\$ 55,000,000	\$ 228,000,000
<b>Grants and Partnerships (no payment is expected)</b>								
State funded grants	\$ 827,000	\$ 2,727,700	\$ 1,750,000	\$ 1,750,000	\$ 1,750,000	\$ 1,750,000	\$ 1,750,000	\$ 10,554,700
Federal funded grants	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$ -
Public-private partnership (matched grant)	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$ -
Subtotal Grants and Partnerships	\$ 827,000	\$ 2,727,700	\$ 1,750,000	\$ 1,750,000	\$ 1,750,000	\$ 1,750,000	\$ 1,750,000	\$ 10,554,700
<b>Total Annual Sources of Funds</b>	<b>\$ 53,362,247</b>	<b>\$ 64,442,985</b>	<b>\$ 65,302,443</b>	<b>\$ 67,054,874</b>	<b>\$ 73,443,728</b>	<b>\$ 78,760,753</b>	<b>\$ 84,028,981</b>	<b>\$ 250,162,549</b>
<b>Percent of Funds Directed Toward ISRP</b>								

Compare total permit term paygo ISRP costs / subtotal permit term paygo sources: 93%

Compare total ISRP expenditures / total permit term annual sources of funds: 92%

\* 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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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

REST BMP ID	REST BMP TYPE <sup>1</sup>	BMP CLASS <sup>1</sup>	NUM BMP	IMPERVIOUS ACRES	% ISRP COMPLETE	IMPLEMEN-TATION COST	BUILT DATE	IMPLEMENTATION STATUS	GENERAL COMMENTS
<b>Obligations from Previous Permit That Must Be Continued or Met</b> <span style="float: right;"><b>1.9%</b></span>									
<b>Operational Programs<sup>2,3</sup></b>									
	CBC	A	167	35.1	18%	\$302,166	06/30/2021	COMPLETE	Assumes 50% organic and 50% inorganic material collected.
	CBC	A	75	15.8	8%		06/30/2022	COMPLETE	Full implementation for FY22 not available at time of FAP compilation; full credit will be included in the MS4 Annual Report and geodatabase. Assumes 50% organic and 50% inorganic material collected.
	SEPP	A	19,323	386.5	194%	\$0	06/30/2021	COMPLETE	Funding Source: Private septic tank owners.
	SEPP	A	18,864	377.3	190%		06/30/2022	COMPLETE	Full implementation for FY22 not available at time of FAP compilation; full credit will be included in the MS4 Annual Report and geodatabase.
	VSS	A	256	39.9	20%	\$337,964	06/30/2021	COMPLETE	256 lane miles swept.
	VSS	A	256	39.9	20%	\$361,469	06/30/2022	COMPLETE	256 lanes miles swept.
<b>Subtotal Operations<sup>1,6</sup></b>			<b>38941</b>	<b>447</b>	<b>225%</b>	<b>\$1,284,466</b>			
<b>Capital Projects (Completed to Replace Annual Obligations)<sup>2,3</sup></b>									
<b>Subtotal Capital</b>			<b>0</b>	<b>0</b>	<b>0%</b>	<b>\$0</b>			
<b>Other (Completed to Replace Annual Obligations)<sup>2,3</sup></b>									
<b>Subtotal Other</b>			<b>0</b>	<b>0</b>	<b>0%</b>	<b>\$0</b>			
<b>Total Continued Obligations from Previous Permit</b>			<b>38,941</b>	<b>447</b>	<b>225%</b>	<b>\$1,284,466</b>			
<b>Restoration for the New Permit</b> <span style="float: right;"><b>2.9%</b></span>									
<b>Operational Programs<sup>3,5</sup></b>									
<b>Subtotal Operations<sup>4</sup></b>			<b>0</b>	<b>0.00</b>	<b>0%</b>	<b>\$0</b>			
<b>Capital Projects<sup>3,5</sup></b>									
AA18RST000028	FBIO	S	1	5.08	0.169%	\$903,159	6/6/2021	COMPLETE	
AA16RST000063	FSND	S	1	6.45	0.215%	\$558,232	1/29/2021	COMPLETE	
AA21APY000003	IMPP	A	1	0.06	0.002%	\$1,504	4/30/2021	COMPLETE	
AA17RST000002	ITRN	S	1	2.64	0.088%	\$652,419	1/5/2022	COMPLETE	
AA21RST000012	MIBR	E	1	0.11	0.004%	\$5,265	4/30/2021	COMPLETE	
AA21RST000013	MIBR	E	1	0.11	0.004%	\$7,521	4/30/2021	COMPLETE	
AA21RST000014	MIBR	E	1	0.30	0.010%	\$24,068	4/30/2021	COMPLETE	
AA20RST000008	MRNG	E	1	0.12	0.004%	\$6,300	9/25/2020	COMPLETE	
AA20RST000009	MRNG	E	1	0.06	0.002%	\$3,150	9/25/2020	COMPLETE	
AA20RST000010	MRNG	E	1	0.18	0.006%	\$9,450	9/25/2020	COMPLETE	
AA19RST000013	PWED	S	1	19.34	0.645%	\$491,092	5/4/2021	COMPLETE	
AA19RST000014	PWED	S	1	44.24	1.476%	\$1,123,368	5/4/2021	COMPLETE	
AA18ALN000012	SHST	A	1	31.93	1.065%	\$231,709	8/27/2020	COMPLETE	
AA21ALN000013	SHST	A	1	18.28	0.610%	\$133,105	8/27/2020	COMPLETE	
AA20ALN000015	SHST	A	1	18.00	0.600%	\$129,034	10/27/2020	COMPLETE	
AA20ALN000006	SHST	A	1	134.33	4.481%	\$2,078,677	12/1/2020	COMPLETE	
AA20ALN000007	SHST	A	1	47.36	1.580%	\$733,023	12/1/2020	COMPLETE	
AA20ALN000014	SHST	A	1	1.59	0.053%	\$32,277	2/23/2021	COMPLETE	
AA19ALN000027	SHST	A	1	4.18	0.139%	\$639,981	3/21/2021	COMPLETE	
AA21ALN000004	SHST	A	1	6.06	0.202%	\$298,868	4/30/2021	COMPLETE	
AA20ALN000008	SHST	A	1	4.91	0.164%	\$751,882	6/30/2021	COMPLETE	
AA20ALN000017	SHST	A	1	110.12	3.673%	\$2,369,719	11/16/2021	COMPLETE	
AA20ALN000018	SHST	A	1	26.78	0.893%	\$2,002,664	12/31/2021	COMPLETE	
AA20ALN000016	SHST	A	1	30.05	1.002%	\$647,113	12/31/2021	COMPLETE	
AA17ALN000017	SHST	A	1	10.24	0.342%	\$2,070,593	2/28/2022	COMPLETE	
AA17ALN000008	SHST	A	1	9.78	0.326%	\$1,909,045	2/28/2022	COMPLETE	
AA18RST000014	SPSC	A	1	71.32	2.379%	\$2,178,172	8/21/2020	COMPLETE	Project has Protocol 1 or 5.
AA19RST000007	SPSC	A	1	1.81	0.060%	\$23,084	12/10/2020	COMPLETE	Project has Protocol 1 or 5.
AA19RST000008	SPSC	A	1	111.39	3.715%	\$1,420,606	12/10/2020	COMPLETE	Project has Protocol 1 or 5.
AA20RST000007	SPSC	A	1	1.02	0.034%	\$66,870	2/1/2021	COMPLETE	
AA19RST000004	SPSC	A	1	24.89	0.830%	\$383,915	2/7/2021	COMPLETE	Project has Protocol 1 or 5.
AA21RST000015	SPSC	A	1	0.95	0.032%	\$34,729	5/24/2021	COMPLETE	
AA16RST000069	SPSC	A	1	5.05	0.168%	\$722,643	5/30/2021	COMPLETE	

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AA18RST000023	SPSC	A	1	106.05	3.537%	\$1,485,426	9/7/2021	COMPLETE	Project has Protocol 1 or 5.
AA17RST000001	SPSC	A	1	4.77	0.159%	\$1,178,803	9/23/2021	COMPLETE	
AA16RST000065	SPSC	A	1	7.46	0.249%	\$645,645	11/30/2021	COMPLETE	
AA19RST000003	SPSC	A	1	0.96	0.092%	\$24,911	12/1/2021	COMPLETE	
AA22RST000002	SPSC	A	1	3.98	0.133%	\$102,355	4/27/2022	COMPLETE	Project has Protocol 1 or 5.
AA19ALN000022	STRE	A	1	22.01	0.734%	\$7,293,014	9/3/2020	COMPLETE	
AA21ALN000001	STRE	A	1	7.40	0.247%	\$7,776,098	9/18/2020	COMPLETE	
AA18ALN000007	STRE	A	1	9.50	0.317%	\$645,192	12/1/2020	COMPLETE	
AA16ALN000008	STRE	A	1	40.74	1.359%	\$519,575	12/10/2020	COMPLETE	
AA19ALN000006	STRE	A	1	204.29	6.814%	\$378,487	1/15/2021	COMPLETE	
AA21ALN000009	STRE	A	1	19.48	0.650%	\$349,700	2/5/2021	COMPLETE	
AA21ALN000015	STRE	A	1	5.92	0.197%	\$158,211	3/4/2021	COMPLETE	
AA20ALN000009	STRE	A	1	42.63	1.422%	\$1,358,152	3/15/2021	COMPLETE	
AA20ALN000010	STRE	A	1	4.17	0.139%	\$145,471	3/15/2021	COMPLETE	
AA18ALN000005	STRE	A	1	6.11	0.204%	\$523,700	3/15/2021	COMPLETE	
AA19ALN000029	STRE	A	1	90.95	3.034%	\$1,834,936	3/19/2021	COMPLETE	
AA19ALN000021	STRE	A	1	40.90	1.364%	\$423,000	3/31/2021	COMPLETE	
AA19ALN000020	STRE	A	1	19.85	0.662%	\$515,089	11/28/2021	COMPLETE	
AA19ALN000008	STRE	A	1	13.70	0.457%	\$1,313,996	11/28/2023	COMPLETE	
AA19RST000009	WEDW	S	1	1.78	0.059%	\$22,701	12/10/2020	COMPLETE	
AA16RST000060	WSHW	S	1	12.44	0.415%	\$741,412	9/14/2020	COMPLETE	
Subtotal Capital			54	1,414	47%	\$50,078,512			
Other <sup>3,5</sup>									
AA21RST000004	MMBR	E	1	0.34	0.0113%	\$0	6/30/2021	COMPLETE	Funding Source: Severn Riverkeeper Program (NGO).
AA19RST000018	MSGW	E	1	0.40	0.0133%	\$0	7/9/2020	COMPLETE	Funding Source: Private waterfront community.
AA19RST000019	MSGW	E	1	0.95	0.0317%	\$0	7/9/2020	COMPLETE	Funding Source: Private waterfront community.
AA21ALN000022	OUT	A	1	2.79	0.0931%	\$0	6/1/2021	COMPLETE	Funding Source: Anne Arundel Soil Conservation District.
					0.2702%			COMPLETE	Aggregated records. FY22 data not available at time of FAP compilation; full credit will be included in the MS4 Annual Report and geodatabase, showing FY21 only.
	SEPC	A	25	8.10		\$0	6/30/2021		Funding Source: Bay Restoration Fund Grant; private homeowners.
					1.0240%			COMPLETE	Aggregated records. FY22 data not available at time of FAP compilation; full credit will be included in the MS4 Annual Report and geodatabase, showing FY21 only.
	SEPD	A	191	30.70		\$0	6/30/2021		Funding Source: Bay Restoration Fund Grant; private homeowners.
AA21ALN000010	SHST	A	1	11.06	0.3689%	\$0	8/3/2021	COMPLETE	Funding Source: Alliance for the Chesapeake Bay (NGO).
AA21RST000005	SPSC	A	1	0.70	0.0233%	\$0	12/31/2021	COMPLETE	Funding Source: Alliance for the Chesapeake Bay (NGO).
AA21RST000006	SPSC	A	1	0.66	0.0220%	\$0	12/31/2021	COMPLETE	Funding Source: Alliance for the Chesapeake Bay (NGO).
AA21ALN000029	STRE	A	1	6.00	0.2001%	\$0	6/24/2021	COMPLETE	Funding Source: Private developer.
Subtotal Other			224	62	2%	\$0			
<b>Total Additional Restoration</b>			<b>278</b>	<b>1,476</b>	<b>49%</b>	<b>\$50,078,512</b>			

**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.

**Anne Arundel County Notes:**

6. Adjusted the formula for Subtotal Operations %ISRP Complete from adding annual percentages to calculating Subtotal Impervious Acres as a percent of Permit Obligation.

Code Description	Code	Class
<b>Ponds</b>		
Micro-Pool Extended Detention Pond	PMED	S
Multiple Pond	PMPS	S
Pocket Pond	PPKT	S
Wet Extended Detention Pond	PWED	S
Wet Pond	PWET	S
<b>Wetlands</b>		
ED Shallow Wetland	WEDW	S
Pocket Wetland	WPKT	S
Pond Wetland System	WPWS	S
Shallow Marsh	WSHW	S
<b>Infiltration</b>		
Infiltration Basin	IBAS	S
Infiltration Trench	ITRN	S
Landscape Infiltration	MILS	E
Infiltration Berm	MIBR	E
Dry Well	MIDW	E
<b>Filtering Systems</b>		
Surface Sand Filter	FSND	S
Underground Filter	FUND	S
Perimeter Filter	FPER	S
Organic Filter	FORG	S
Pocket Filter	FPKT	S
Bioretention	FBIO	S
Submerged Gravel Wetland	MSGW	E
Micro-Bioretention	MMBR	E
Rain Garden	MRNG	E
Enhanced Filter	MENF	E
<b>Open Channel Systems</b>		
Dry Swale	ODSW	S
Wet Swale	OWSW	S
Bio-Swale	MSWB	E

Grass Swale	MSWG	E
Wet Swale	MSWW	E
<b>Alternative Surfaces</b>		
Green Roof - Extensive	AGRE	E
Green Roof - Intensive	AGRI	E
Permeable Pavement	APRP	E
Reinforced Turf	ARTF	E
<b>Nonstructural Techniques</b>		
Non-Rooftop Disconnect	NDNR	E
Rooftop Disconnect	NDRR	E
Sheetflow to Conservation Area	NSCA	E
<b>Other Systems</b>		
Rainwater Harvesting	MRWH	E
<b>Other Practices</b>		
Extended Detention Structure, Dry	XDED	S
Detention Structure (Dry Pond)	XDPD	S
Flood Management Area	XFLD	S
Oil Grit separator	XOGS	S
Other	OTH	
<b>Alternative BMP</b>		
Mechanical Street Sweeping	MSS	A
Regenerative/Vacuum Street Sweeping (i.e., Advanced Street Sweeping)	VSS	A
Catch Basin Cleaning	CBC	A
Storm Drain Vacuuming (i.e., Storm Drain Cleaning)	SDV	A
Stream Restoration	STRE	A
Outfall Stabilization	OUT	A
Shoreline Management	SHST	A
Septic Connections to WWTP	SEPC	A
Septic Denitrification	SEPD	A
Septic Pumping	SEPP	A
Elimination of Discovered Nutrient Discharges from Grey Infrastructure	DGI	A
Floating Treatment Wetlands	XFTW	A
Impervious Surface Reduction (i.e., impervious to pervious)	IMPP	A

Impervious Surface to Forest (i.e., IMPP + FPU)	IMPF	A
Forestation on Pervious Urban (i.e., Forest Planting)	FPU	A
Conservation Landscaping	CLTM	A
Forest Conservation	FCO	A
Riparian Conservation Landscaping	RCL	A
Riparian Forest Planting	RFP	A
Street Trees	STCI	A
Urban Soil Restoration (Compacted Pervious Surfaces)	USRP	A
Urban Soil Restoration (Removed Impervious Surfaces)	USRI	A
Urban Tree Canopy (i.e., Pervious Turf to Tree Canopy over Turf)	UTC	A
Dry Channel Regenerative Step Pool Stormwater Conveyance System	SPSD	A