

Watershed Protection and Restoration Program

Financial Assurance Plan

Charles County, Maryland

Fiscal Year 2023

Executive Summary

Background

This Financial Assurance Plan (FAP) is prepared to fulfill requirements specified in the Annotated Code of Maryland (COMAR), Environment Article, § 4-202.1.

The purpose is to describe actions and revenue necessary to implement impervious surface restoration requirements of Charles County's National Pollutant Discharge Elimination System Municipal Separate Storm Sewer System (MS4) Permit Number MD0068365 and demonstrate sufficient funding for the 2-year period immediately following the filing date of the FAP. Although the County's new MS4 permit has not been issued, the public comment period has closed, and final determination is expected in 2022. The data in the FAP correlates to the new permit.

State law requires that the County hold a public hearing and approve the FAP prior to filing with Maryland Department of Environment.

Summary of Charles County FAP

Five elements are specified in COMAR as necessary to demonstrate financial assurance and are each represented by a corresponding table attached hereto. Information included on the FAP tables is prior actual costs and projections. The FAP is an evaluation tool, and not used for adopting new budgets or authorizing new projects. A summary of each table follows.

Table 1: All actions necessary to meet the Impervious Surface Restoration Plan (ISRP).

Current and future actions to achieve the ISRP are itemized into two parts: (1) obligations from the previous permit that must be continued totaling 138 acres, and (2) restoration required for the new permit totaling 1,083 acres. (Completed actions are on Table 5.)

Under the first part: 'Operational Programs' include storm drain vacuuming and septic pump-out programs, which will be maintained at prior levels. A 'Capital Project' is also included to replace street sweeping that was previously credited. The acres of restoration generated by operational programs are averaged over the permit term and the annual average is credited.

Under the second part: 'Capital Projects' to be implemented by the County are listed with status, and 'Other' projects to be implemented by private parties, non-profits, other agencies, and the County are listed. These include connection of septic systems to public sanitary

sewer systems, installation of septic system denitrification units, and nutrient trading from oyster restoration.

Table 2: Projected annual and 5-year costs to meet the ISRP.

This table includes Operational and Capital expenditures from the second half of FY 2020 through FY 2027. The total ISRP costs except debt service through FY 2027 are projected to be \$38.2 million.

Table 3: Projected annual and 5-year revenues and other funds that will be used to meet the costs of the ISRP.

By FY 2025, total revenue appropriated for the ISRP is projected to be \$59.2 million.

Table 4: Sources of funds that will be utilized by the County to meet the entire MS4 permit

Table 4 shows the funding to implement all requirements of the MS4 permit, which includes: permit administration, legal authority, permit geodatabase, stormwater management program, sediment and erosion control program, illicit discharge program, litter management, good housekeeping on County properties, public education and outreach, impervious surface restoration, watershed management and restoration plans, water quality monitoring, and program funding.

Funding to implement these programs is from the following: Watershed Protection and Restoration Fund, General Fund, Inspection and Review Fund, and General Obligation Bonds. The total projected through FY 2027 is \$98 million.

Table 5: Specific actions and expenditures that the county implemented in previous fiscal years to meet the ISRP.

Completed actions to achieve the ISRP are itemized into two parts: (1) obligations from the previous permit that must be continued totaling 138 acres, and (2) restoration required for the new permit totaling 1,083 acres.

Under the first part: ‘Operational Programs’ include storm drain vacuuming and septic pump-out programs, which will be maintained at prior levels. A ‘Capital Project’ is also included to replace street sweeping that was previously credited. To date the acres of restoration generated by operational programs, averaged over the permit term is 170 acres.

Under the second part: ‘Capital Projects’ completed by the County are listed, and ‘Other’ projects completed by private parties, non-profits, other agencies, and the County are listed. These include connection of septic systems to public sanitary sewer systems and installation of septic system denitrification units.

To date, the County has completed 502 acres of impervious surface restoration towards the new permit. This is 46% of the total goal.

Watershed Protection and Restoration Program

Financial Assurance Plan (FAP)

Filing Date: December 26, 2022

The purpose is to describe actions and revenue necessary to implement impervious surface restoration (ISR) requirements of Charles County’s National Pollutant Discharge Elimination System Municipal Separate Storm Sewer System (MS4) Permit Number MD0068365 and demonstrate sufficient funding for the 2-year period immediately following the filing date of the FAP.

MS4 Information	
Jurisdiction	Charles County
Contact Name	James Campbell
Phone	301-645-0598
Address	200 Baltimore Street
City	La Plata
State	Maryland
Zip	20646
Email	CampbelJ@CharlesCountyMD.gov
Continued Annual Alternative ISR (ac)	138
Required ISR New Permit (ac)	1,083
Total ISR (ac)	1,221
Current Permit Number	11-DP-3322
New Permit Period (CY) ^{1, 2}	2022-2027
Reporting FY	2023

¹ As of September 27, 2022 the County's new MS4 permit has not been issued by the Maryland Department of Environment (MDE).

² Data contained within this report correlates to the new MS4 permit.

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): 138 11%
Required ISR New Permit (ac): 1,083
Total ISR (ac): 1,221

REST BMP TYPE ¹	BMP CLASS	IMPERVIOUS ACRES	% ISR GOAL	IMPLEMENTATION COSTS	IMPLEMENTATION STATUS	IMPLEMENTATION COMPLETION YEAR (FY)
Obligations from Previous Permit That Must Be Continued or Met						
Operational Programs^{2,3}						
Storm Drain Vacuuming	A	40.23	29%	\$120,000	UNDER CONST	2023
Storm Drain Vacuuming	A	40.23	29%	\$120,000	PLANNING	2024
Storm Drain Vaccuming	A	40.23	29%	\$120,000	PLANNING	2025
Storm Drain Vacuuming	A	40.23	29%	\$120,000	PLANNING	2026
Storm Drain Vacuuming	A	40.23	29%	\$120,000	PLANNING	2027
Storm Drain Vaccuming	A	40.23	29%	\$120,000	PLANNING	2028
Septic Pumping	A	29.98	22%	\$265,100	UNDER CONST	2023
Septic Pumping	A	29.98	22%	\$265,100	PLANNING	2024
Septic Pumping	A	29.98	22%	\$265,100	PLANNING	2025
Septic Pumping	A	29.98	22%	\$265,100	PLANNING	2026
Septic Pumping	A	29.98	22%	\$265,100	PLANNING	2027
Septic Pumping	A	29.98	22%	\$265,100	PLANNING	2028
Operations Next Two Years (FY23-24) ⁴		70.2	51%	\$770,200		
Operations Next Five Years (FY23-27) ⁴		70.2	51%	\$1,925,500		
Capital Projects (Completed to Replace Annual Obligations)^{2,3}						
SHST	A	70.2	51%	\$1,364,385	COMPLETE	2022
Subtotal Capital Next Two Years		0	0%	\$0		
Subtotal Capital Next Five Years (FY23-27)		0	0%	\$0		
Other (Completed to Replace Annual Obligations)^{2,3}						
N/A			0%			N/A
N/A			0%			N/A
Subtotal Other Next Two Years (FY23-24)		0	0%	\$0		
Subtotal Other Next Five Years (FY23-27)		0	0%	\$0		

Total Continued Obligations Next Two Years (FY23-24)		70	51%	\$770,200			
Total Continued Obligations Next Five Years (FY23-27)		70	51%	\$1,925,500			
Restoration for the New Permit							
Operational Programs^{3,5}							
N/A			0%				N/A
N/A			0%				N/A
Operations Next Two Years (FY23-24) ⁴		0	0%	\$0			
Operations Next Five Years (FY23-27) ⁴		0	0%	\$0			
Capital Projects^{3,5}							
STRE	A	53.5	5%	\$1,369,580	UNDER CONST	2023	CSM Tributaries Stream Restoration (3 parts)
STRE	A	17.08	2%	\$877,140	UNDER CONST	2023	Ruth B. Swann Tributary Stream Restoration
OUT	A	2.3	0%	\$119,610	UNDER CONST	2023	Ruth B. Swann Tributary Outfall Stabilizations
STRE	A	10.91	1%	\$1,248,810	UNDER CONST	2024	Acton Village - Westdale Drive Stream Restoration
PWET	S	21.01	2%	\$867,870	PLANNING	2024	White Oak Pond Retrofit
PPKT	S	10.24	1%	\$117,390	PLANNING	2024	Wilton Court Pond Retrofit
STRE	A	78.1	7%	\$1,697,700	PLANNING	2025	Ruth B. Swann Upper Stream Restoration
STRE	A	61.88	6%	\$1,816,398	PLANNING	2024	Marbella Stream Restoration
OUT	A	1.62	0%	\$46,325	PLANNING	2024	Marbella Outfall Stabilizations
STRE	A	84.6	8%	\$1,972,800	PLANNING	2025	Port Tobacco Stream Restoration
STRE	A	29.5	3%	\$1,261,665	PLANNING	2025	Milton Somers Stream Restoration
PWED	S	9.9	1%	\$420,555	PLANNING	2025	Milton Somers Pond Retrofit
MMBR	E	1.3	0%	\$75,000	PLANNING	2025	Walter Mitchell Bioretention
STRE	A	30.9	3%	\$887,655	PLANNING	2025	Walter Mitchell Stream Restoration
PWED	S	11.4	1%	\$598,958	PLANNING	2025	South Hampton-Greenville Pond
PWED	S	4.3	0%	\$226,320	PLANNING	2025	South Hampton-Walden Pond
PWED	S	3.5	0%	\$184,214	PLANNING	2025	South Hampton-Sir Douglas Pond
OUT	A	15.9	1%	\$401,333	PLANNING	2025	South Hampton-Amherst Step Pool Stream
SPSC	A	2.3	0%	\$121,055	PLANNING	2025	South Hampton-Amherst Step Pool - WQ _v
STRE	A	120.72	11%	\$1,500,000	PLANNING	2025	Oak Ridge Park West Stream Restoration
STRE	A	18	2%	\$1,500,000	PLANNING	2026	Oak Ridge Park East Stream Restoration
STRE	A	16.45	2%	\$810,500	PLANNING	2026	Locust Grove Farm Stream Restoration
PWET	S	16.66	2%	\$366,069	PLANNING	2026	White Plains Golf Course Pond Retrofit
STRE	A	10	1%	\$1,000,000	PLANNING	2027	Stream Restoration - Port Tobacco Watershed TBD
TBD	S	10	1%	\$750,000	PLANNING	2027	Stormwater Management Retrofits - TBD
STRE	A	21.1	2%	\$1,000,000	PLANNING	2027	Stream Restoration - Strawberry Hills

TBD	S	10	1%	\$500,000	PROPOSED	2027	Full Delivery Contract Projects
STRE	A	5	0%	\$1,000,000	PROPOSED	2028	Stream Restoration - Port Tobacco Watershed TBD
TBD	S	10	1%	\$750,000	PROPOSED	2028	Stormwater Management Retrofits - TBD
TBD	S	10	1%	\$500,000	PROPOSED	2028	Full Delivery Contract Projects
Subtotal Capital Next Two Years (FY23-24)		179	16%	\$6,463,123			
Subtotal Capital Next Five Years (FY23-27)		673	62%	\$21,736,946			
Other^{3,5}							
SEPD	A	1.5	0%	\$150,000	UNDER CONST	2023	Septic Denitrif. Units-Bay Restoration Fund Grant
SEPD	A	1.5	0%	\$150,000	PLANNING	2024	Septic Denitrif. Units-Bay Restoration Fund Grant
SEPD	A	1.5	0%	\$150,000	PLANNING	2025	Septic Denitrif. Units-Bay Restoration Fund Grant
SEPD	A	1.5	0%	\$150,000	PLANNING	2026	Septic Denitrif. Units-Bay Restoration Fund Grant
SEPD	A	1.5	0%	\$150,000	PLANNING	2027	Septic Denitrif. Units-Bay Restoration Fund Grant
SEPD	A	1.5	0%	\$150,000	PLANNING	2028	Septic Denitrif. Units-Bay Restoration Fund Grant
SEPC	A	0.5	0%	\$40,000	UNDER CONST	2023	Septic Connect to WWTP-Bay Restoration Fund Grant
SEPC	A	0.5	0%	\$40,000	PLANNING	2024	Septic Connect to WWTP-Bay Restoration Fund Grant
SEPC	A	0.5	0%	\$40,000	PLANNING	2025	Septic Connect to WWTP-Bay Restoration Fund Grant
SEPC	A	0.5	0%	\$40,000	PLANNING	2026	Septic Connect to WWTP-Bay Restoration Fund Grant
SEPC	A	0.5	0%	\$40,000	PLANNING	2027	Septic Connect to WWTP-Bay Restoration Fund Grant
SEPC	A	0.5	0%	\$40,000	PLANNING	2028	Septic Connect to WWTP-Bay Restoration Fund Grant
OTHER	A	3	0%		PLANNING	2027	Oyster Restoration
Subtotal Other Next Two Years (FY23-24)		4	0%	\$380,000			
Subtotal Other Next Five Years (FY23-27)		13	1%	\$950,000			
Total Next Two Years (FY23-24)		183	17%	\$6,843,123			
Total Next Five Years (FY23-27)		686	63%	\$22,686,946			

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.

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	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 ⁴
Operating Expenditures (costs)								
Inlet Cleaning	\$595,046	\$440,500	\$494,200	\$504,100	\$514,200	\$524,600	\$535,200	\$3,607,847
Support of Capital Projects	\$284,486	\$280,647	\$331,200	\$263,300	\$230,500	\$236,600	\$261,400	\$1,888,133
Debt Service Payment ¹	\$496,295	\$564,599	\$690,285	\$1,052,278	\$1,623,405	\$1,839,988	\$2,051,405	\$8,318,256
Septic Pump-Out Program	\$316,293	\$116,317	\$150,000	\$153,000	\$156,100	\$159,200	\$162,400	\$1,213,309
Capital Expenditures (costs)³								
Debt Service	\$7,629,273	\$1,050,000	\$1,932,100	\$5,564,723	\$8,779,621	\$3,329,409	\$3,250,000	\$31,535,126
Subtotal operation and paygo:	\$1,692,120	\$1,402,063	\$1,665,685	\$1,972,678	\$2,524,205	\$2,760,388	\$3,010,405	\$15,027,544
Total expenditures:	\$9,321,393	\$2,452,063	\$3,597,785	\$7,537,401	\$11,303,826	\$6,089,797	\$6,260,405	\$46,562,670

Total ISRP costs except debt service: \$38,244,414

Compare ISRP costs (except debt service) / total ISRP proposed actions for next five years: 169%

Total capital expenditures: \$31,535,126

Compare total capital expenditures / total ISRP proposed actions capital costs for next five years: 145%

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 permit cycle.
4. Total cycle includes FY 2021 (costs associated with capital projects attributed to the current permit) to FY 2027.

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	PAST UP THRU FY 21	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 ¹	TOTAL
Annual Revenue ² Appropriated for ISRP	\$14,847,703	\$9,651,380	\$12,903,900	\$12,866,900	\$13,442,400	\$14,025,900	\$14,614,100	\$25,770,800	\$92,352,282
Annual Costs towards ISRP ³	\$9,321,393	\$2,452,063	\$3,597,785	\$7,537,401	\$11,303,826	\$6,089,797	\$6,260,405	\$11,135,186	\$46,562,670

Compare revenue appropriated / annual costs: **231%**

Reporting Criteria: **100%**

Notes:

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 FY22.
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 23 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	PAST UP THRU¹ FY 21	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
Paygo Sources								
Stormwater Remediation Fees (WPR Fund)	\$ 6,699,757	\$ 5,915,720	\$ 6,607,400	\$ 6,708,900	\$ 6,781,300	\$ 6,861,700	\$ 6,946,700	\$ 46,521,477
Miscellaneous Fees (WPR Fund)	\$ 53,701	\$ 14,343	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 93,044
General Fund	\$ 575,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 575,000
Fund Balance (WPR Fund)	\$ 402,953	\$ 105,000	\$ 81,500	\$ -	\$ -	\$ -	\$ -	\$ 589,453
Sediment & Erosion Control Fees (Insp & Review Fund)	\$ 531,912	\$ 585,285	\$ 364,000	\$ 364,000	\$ 364,000	\$ 364,000	\$ 364,000	\$ 2,937,197
Stormwater Maintenance Inspection Fees (Insp & Review Fund)	\$ 725,993	\$ 762,007	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 3,988,000
Subtotal Paygo Sources	\$ 8,989,315	\$ 7,382,355	\$ 7,557,900	\$ 7,577,900	\$ 7,650,300	\$ 7,730,700	\$ 7,815,700	\$ 54,704,170
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).								
County Transportation Bonds								\$ -
General Obligation Bonds	\$ 6,800,000	\$ 3,500,000	\$ 6,060,000	\$ 6,000,000	\$ 6,500,000	\$ 7,000,000	\$ 7,500,000	\$ 43,360,000
Revenue (Utility) Bonds								\$ -
State Revolving Loan Fund								\$ -
Public-private partnership (debt service)								\$ -
Subtotal Debt Service	\$ 6,800,000	\$ 3,500,000	\$ 6,060,000	\$ 6,000,000	\$ 6,500,000	\$ 7,000,000	\$ 7,500,000	\$ 43,360,000
Grants and Partnerships (no payment is expected)								
State funded grants								\$ -
Federal funded grants								\$ -
Public-private partnership (matched grant)								\$ -
Subtotal Grants and Partnerships	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Annual Sources of Funds	\$ 15,789,315	\$ 10,882,355	\$ 13,617,900	\$ 13,577,900	\$ 14,150,300	\$ 14,730,700	\$ 15,315,700	\$ 98,064,170
Percent of Funds Directed Toward ISRP								

Compare total permit term paygo ISRP costs / subtotal permit term paygo sources: **22%**
 Compare total ISRP expenditures / total permit term annual sources of funds: **23%**

* WPR Fund: Watershed Protection and Restoration Fund.

Note:
 1. Previous accumulated revenue should be specifically designated for use for the new MS4 permit.

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.

REST BMP ID	REST BMP TYPE ¹	BMP CLASS ¹	NUM BMP	IMPERVIOUS ACRES	% ISRP COMPLETE	IMPLEMEN-TATION COST	BUILT DATE	IMPLEMENTATION STATUS	GENERAL COMMENTS
Obligations from Previous Permit That Must Be Continued or Met				138.00					
Operational Programs^{2,3}									
Storm Drain Vacuuming	SDV	A	150	62.16	45%	\$99,991	6/30/2020	Complete	155.4 tons removed (0.4 ac/ton)
Storm Drain Vacuuming	SDV	A	123	127.68	93%	\$147,784	6/30/2021	Complete	319.2 tons removed (0.4 ac/ton)
Storm Drain Vacuuming	SDV	A	TBD	24.26	18%	\$148,979	6/30/2022	Complete	60.65 tons removed (0.4 ac/ton)
Septic Pumping	SEPP	A	946	22.40	16%	\$123,289	6/30/2020	Complete	Cost of Septic Pump-out Reimbursement Program
Septic Pumping	SEPP	A	1627	32.54	24%	\$254,648	6/30/2021	Complete	Cost of Septic Pump-out Reimbursement Program
Septic Pumping	SEPP	A	1499	29.98	22%	\$116,317	6/30/2022	Complete	Cost of Septic Pump-out Reimbursement Program
Subtotal Operations ⁴			4345	99.67	217%	\$891,008			
Capital Projects (Completed to Replace Annual Obligations)^{2,3}									
CH20ALN000028	SHST	A	1	70.2	51%	\$1,391,444	6/30/2020	Complete	Potomac Heights Shoreline Stabilization
Subtotal Capital			1	70	51%	\$1,391,444			
Other (Completed to Replace Annual Obligations)^{2,3}									
N/A				0	0%	\$0		N/A	N/A
Subtotal Other			0	0	0%	\$0			
Total Continued Obligations from Previous Permit			4,346	170	123%	\$2,282,452			
Restoration for the New Permit				1083.00					
Operational Programs^{3,5}									
N/A				0	0%	\$0		N/A	N/A
Subtotal Operations ⁴			0	0	0%	\$0			
Capital Projects^{3,5}									
CH17ALN000011	STRE	A	1	18.02	2%	\$816,760	3/31/2020	Complete	Apple Creek Stream Restoration
CH16RST000097	PWED	S	1	29	3%	\$793,680	5/30/2020	Complete	La Plata High School Pond Retrofit
CH17ALN000014	STRE	A	1	50	5%	\$965,268	6/30/2020	Complete	Higdon Elementary School Stream Restoration
CH17ALN000005	STRE	A	1	7.1	1%	\$689,233	6/30/2020	Complete	St. Charles Parkway Stream Restoration
CH18ALN000004	SHST	A	1	82.16	8%	\$1,432,670	7/31/2020	Complete	Cliffton Shoreline Stabilization Phase 1
CH20ALN000027	SHST	A	1	92.72	9%	\$1,616,710	7/31/2020	Complete	Cliffton Shoreline Stabilization Phase 2
CH16RST000014	BIO	E	1	2.07	0%	\$252,450	9/30/2020	Complete	General Smallwood Middle School Bioretention
CH17RST000067	BIO	E	1	2.57	0%	\$252,450	9/30/2020	Complete	General Smallwood Middle School Bioretention
CH17RST000062	ODSW	S	1	1.15	0%	\$78,461	11/30/2020	Complete	Bensville Park Dry Swale with 2 Check Dams
CH17RST000002	ODSW	S	1	1.69	0%	\$145,713	11/30/2020	Complete	Bensville Park Dry Swale
CH17RST000063	FSND	S	1	3.33	0%	\$116,083	11/30/2020	Complete	Bensville Park Sand Filter
CH17APY000456	FPU	A	1	1.76	0%	\$88,795	11/30/2020	Complete	Bensville Park Reforestation
CH19RST000005	PWET	S	1	12.66	1%	\$286,000	5/28/2021	Complete	Best Buy Wetpond Expansion
CH19RST000006	PPKT	S	1	3.61	0%	\$95,000	6/30/2021	Complete	Cedar Tree Pond Retrofit
CH17ALN000013	STRE	A	1	106.07	10%	\$1,050,000	7/28/2022	Complete	Ruth B. Swann Park Main Stream Restoration
CH17ALN000013	STRE	A	1	73.28	7%	\$1,081,110	8/28/2022	Complete	Hunt Club - Bridle Path Stream Restoration

Subtotal Capital			16	487.19	45%	\$9,760,383			
Other^{3,5}									
	SEPD	A	36	5.76	1%	\$270,863	6/30/2020	Complete	Septic Denitrif. Units-Bay Restoration Fund Grant
	SEPD	A	15	2.4	0%	\$167,405	6/30/2021	Complete	Septic Denitrif. Units-Bay Restoration Fund Grant
	SEPD	A	32	5.12	0%	\$382,861	6/30/2022	Complete	Septic Denitrif. Units-Bay Restoration Fund Grant
	SEPC	A	2	0.46	0%	\$3,226	6/30/2020	Complete	Septic Connect to WWTP-Bay Restoration Fund Grant
	SEPC	A	3	0.69	0%	\$37,686	6/30/2021	Complete	Septic Connect to WWTP-Bay Restoration Fund Grant
	SEPC	A	3	0.69	0%	\$15,988	6/30/2022	Complete	Septic Connect to WWTP-Bay Restoration Fund Grant
Subtotal Other			91	15.12	1%	\$878,029			
Total Additional Restoration			107	502	46%	\$10,638,412			

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.

Code Description	Code	Class
Ponds		
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
Wetlands		
ED Shallow Wetland	WEDW	S
Pocket Wetland	WPKT	S
Pond Wetland System	WPWS	S
Shallow Marsh	WSHW	S
Infiltration		
Infiltration Basin	IBAS	S
Infiltration Trench	ITRN	S
Landscape Infiltration	MILS	E
Infiltration Berm	MIBR	E
Dry Well	MIDW	E
Filtering Systems		
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
Open Channel Systems		
Dry Swale	ODSW	S
Wet Swale	OWSW	S
Bio-Swale	MSWB	E
Grass Swale	MSWG	E
Wet Swale	MSWW	E
Alternative Surfaces		
Green Roof - Extensive	AGRE	E
Green Roof - Intensive	AGRI	E
Permeable Pavement	APRP	E
Reinforced Turf	ARTF	E

Code Description	Code	Class
Nonstructural Techniques		
Non-Rooftop Disconnect	NDNR	E
Rooftop Disconnect	NDRR	E
Sheetflow to Conservation Area	NSCA	E
Other Systems		
Rainwater Harvesting	MRWH	E
Other Practices		
Extended Detention Structure, Dry	XDED	S
Detention Structure (Dry Pond)	XDPD	S
Flood Management Area	XFLD	S
Oil Grit separator	XOGS	S
Other	OTH	
Alternative BMP		
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 Dry Channel Regenerative Step Pool)	UTC	A
	SPSD	A