

**COUNTY COMMISSIONERS OF CHARLES COUNTY, MARYLAND**  
**RESOLUTION NO. 2018- 08**

A RESOLUTION providing for the approval of the Watershed Protection and Restoration Program Financial Assurance Plan, a copy of which is attached hereto.

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

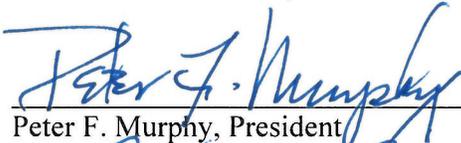
WHEREAS, the Fiscal Year 2019 Charles County Budget was adopted on May 15, 2018, by the County Commissioners of Charles County, Maryland; and

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

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

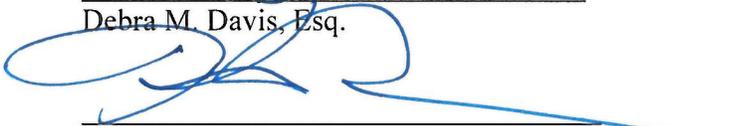
NOW, THEREFORE, upon motion made, duly seconded, and carried, it is this 5<sup>th</sup> day of June 2018, RESOLVED, that the Financial Assurance Plan is hereby approved and shall be submitted to the Maryland Department of the Environment for its review.

COUNTY COMMISSIONERS OF  
CHARLES COUNTY, MARYLAND

  
Peter F. Murphy, President

  
Bobby Rucci, Vice President

  
Debra M. Davis, Esq.

  
Ken Robinson

ATTEST:

  
Danielle Mitchell, Clerk

  
Amanda M. Stewart, M.Ed.

# Watershed Protection and Restoration Program

## Financial Assurance Plan

Charles County, Maryland

June 2018

### Executive Summary

#### **Background**

The enclosed document is Charles County's second biannual Financial Assurance Plan (FAP) prepared to fulfill requirements specified in the Annotated Code of Maryland (COMAR), Environment Article, § 4-202.1.

State law requires that the County hold a public hearing and approve the FAP prior to filing with Maryland Department of Environment (MDE). The FAP is to describe actions, revenues and costs necessary to implement 20% impervious surface restoration (ISR) by the end date of the County's five-year National Pollutant Discharge Elimination System Municipal Separate Storm Sewer System Permit (MS4 Permit) issued on December 26, 2014.

The FAP must demonstrate the jurisdiction has sufficient funding in the current fiscal year and subsequent budgets to meet its anticipated costs for the 2-year period immediately following the filing date of the FAP.

Due to the MS4 Permit requirements stretching the limits of the county's financial capabilities and short time frames for implementation, Charles County has reiterated throughout the Permit reissuing process, that the 20% ISR requirement exceeds the County's maximum extent practicable (MEP). MEP is the legal compliance standard for MS4 Permits established by the federal Clean Water Act.

In good faith the County continues a high level of effort on the 20% ISR. However, this FAP should be read in the context of the County's continuing concern that meeting the 20% ISR requires a level of effort beyond legal authority. Thus, the County requested and was granted a temporary stay on the 20% ISR requirement in the Circuit Court for Charles County, until the issues are resolved by the judicial system.

The County's first FAP proposed a temporary nutrient trade with the Mattawoman Waste Water Treatment Plant to meet the 20% ISR requirement until enough stormwater projects could be constructed to offset the trade. The Mattawoman Waste Water Treatment Plant is not in a position to provide a temporary nutrient trade, so other trading options may be explored.

#### **Summary of Charles County FAP**

The FAP includes five elements specified in COMAR. Each element has a corresponding table attached hereto. Information included on the FAP tables is intended to directly correlate to the Fiscal Year (FY) 2019 adopted budget of Charles County. A summary of each table follows.

**Table 1: All actions necessary to meet the 20% ISR plan.**

Actions to achieve the ISR are itemized into three categories: Operational Programs, Capital Projects and Other. Each category is subtotaled to include previously completed projects and to determine whether the project will achieve the County’s ISR goal of 1,480 acres by the end date of the permit. A total of 892 acres ISR is shown from FY 2008 through FY 2020.

‘Operational Programs’ include Mechanical Street Sweeping, Storm Drain Vacuuming, and Septic Pump Out Reimbursement Programs. The acres of restoration generated by these programs are averaged over the permit term, and the annual average is credited towards the ISR requirement. Currently the programs generate 127 acres towards the ISR requirement.

‘Capital Projects’ include projects to be designed and constructed by the County. The implementation status and projected implementation year are shown for each project. Currently the County proposes an additional 183 acres to be constructed by FY 2020. Capital Projects are expected to generate 1,060 acres towards ISR between FY 2015-FY 2023.

‘Other’ includes projects implemented by private individuals or companies, non-profits, and other agencies that the County credits towards its goal. These projects primarily include shoreline stabilizations, redevelopment projects, installation of septic system denitrification units, and connection of septic systems to public sanitary sewer systems. These projects are anticipated to generate 378 acres towards the ISR requirement by FY 2020.

**Table 2: Projected annual and 5-year costs to meet the ISR plan.**

This table includes Operational and Capital expenditures from FY 2016 through FY 2023. The FY 2018 total expenditure is \$6.8 million, and the projected FY 2023 expenditure is \$18.3 million. The total expenditures from FY 2016 through FY 2023 are projected to be \$114 million.

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

Annual revenue appropriated for the ISR plan in FY 2018 is \$8.4 million. By FY 2020, total appropriation for the ISR plan is projected to be \$19.8 million. These revenues are primarily from the Watershed Protection and Restoration Fund, but also include \$100,000 annually from the Environmental Service Fund to cover the Septic Pump Out Reimbursement Program.

**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 comes from the Watershed Protection and Restoration Fund, General Fund, Inspection and Review Fund, and General Obligation Bonds. The FY 2018 total cost is \$9.1 million, and the total for the permit cycle is \$115.1 million. Descriptions of the MS4 permit sections follow.

Permit Administration: A liaison shall be designated to coordinate with the MDE for implementation of the permit, and an organizational chart, detailing personnel and groups responsible for major MS4 program tasks shall be provided.

Legal Authority: County shall maintain adequate legal authority in according with NPDES regulations.

Source Identification: Geographical information system (GIS) format data shall be provided for the storm drain system, industrial and commercial sources, urban best management practices, impervious surfaces, monitoring locations, and water quality improvement projects.

Management Programs: Programs shall be maintained for: stormwater management and sediment and erosion control development review, triennial maintenance inspections of all stormwater facilities, illicit discharge and elimination, litter and floatables, property management and maintenance, and public education.

Restoration Plans and Total Maximum Daily Loads: Detailed watershed assessments shall be conducted for the entire county by the end of the permit term. An impervious surface assessment and restoration baseline shall be completed in the first year of the permit. By the end of the permit term, 20% of the impervious surface baseline shall be restored. Within one year of the permit issuance, a detailed restoration plan for each watershed with an approved waste load allocation, shall be completed.

Assessment of Controls: Chemical monitoring shall be performed annually for eight storm events at two monitoring stations and annual biological and physical monitoring shall be completed. Annual physical monitoring shall also continue for determining the effectiveness of stormwater practices for stream channel protection.

Program Funding: Adequate program funding to comply with the permit conditions shall be maintained.

**Table 5: Specific actions and expenditures that the county implemented in previous fiscal years to meet its impervious surface restoration requirements.**

Specific actions and expenditures to achieve the ISR are itemized into three categories: Operational Programs, Capital Projects, and Other. Number of projects, ISR achieved, and cost is subtotaled for each category.

‘Operational Programs’ include Mechanical Street Sweeping, Storm Drain Vacuuming, and Septic Pump Out Reimbursement Programs. The acres of restoration generated by these programs are averaged over the permit term, and the annual average is credited towards the ISR requirement. Currently the programs generate 130 acres towards the ISR requirement.

‘Capital Projects’ include projects designed and constructed by the County. The completion year and individual cost is shown for each project. The Capital Projects have generated 202 acres towards the ISR requirement to date.

'Other' includes projects implemented by private individuals or companies, non-profits, and other agencies that the County credits towards its goal. These projects primarily include shoreline stabilizations, redevelopment projects, installation of septic system denitrification units, and connection of septic systems to public sanitary sewer systems. These projects have generated 339 acres towards the ISR requirement.

### **Future Considerations:**

Several factors could affect implementation and accounting of the ISR requirement.

*New Crediting Methods* – MDE has developed 2011 and 2014 versions of a guidance manual for jurisdictions on acceptable ISR practices and crediting methods titled, 'Accounting for Stormwater Wasteload Allocations and Impervious Acres Treated.' MDE is currently in the process of developing a third version of this manual. The manual may affect the projects and credits used in this FAP and may provide additional opportunities for ISR practices.

*Nutrient Trading Program* – MDE has promulgated nutrient trading regulations and plans to adopt them by July 1, 2018. To allow nutrient trading to be permissible under the MS4 permits, MDE will open of the permits and insert a modification. The public comment period and finalization of the permits is expected in October 2018.

*Stormwater Best Management Practices Completion Dates for MS4 Permitting Purposes* – MDE issued a memo on May 2, 2018 outlining minimum criteria on establishing water quality treatment provided by regional flood control ponds, that were constructed prior to 2000. If the criteria can be met, this could reduce the impervious surface baseline for Charles County since there are several of these facilities that previously could not be credited.

*Inspection and Verification* – MDE requires inspection and verification of all practices that count towards the ISR requirement, or the practices are subject to removal from the total. Maintaining an accurate and complete database of inspections is critical in getting the full credit.

*Permit Area and Maximum Extent Practicable* – The County's legal challenge regarding these issues has not yet been resolved, which could affect the 20% ISR requirement.

*Next Generation MS4 Permit* – MDE is drafting the next generation of the permit and has submitted it to Environmental Protection Agency (EPA) for review and concurrence. The draft next generation permit includes a provision to allow any part of the 20% ISR not met under the current permit to be completed under the next permit. However, if the current permit is not met by the end of its term using nutrient trading or another means, it may become subject to enforcement.

These considerations will be tracked to determine if there will be impacts to current accounting methods for the ISR and potential opportunities for additional ISR credits.

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MS4 Information	
Jurisdiction	Charles County
Contact Name	Jason Groth
Phone	301-396-5814
Address	200 Baltimore Street
City	La Plata
State	MD
Zip	20646
Email	<a href="mailto:GrothJ@CharlesCountyMD.gov">GrothJ@CharlesCountyMD.gov</a>
Baseline Treatment Requirement (Acres)	7402.00
Permit Num	11-DP-3322
Reporting Year	2018

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**Check with MDE Geodatabase:**

Should match Permit info table of Geodatabase, except for Impervious Acre Baseline-- that should match Impervious Surface Table.

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**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.

**Baseline:** 7,402 **Requirement:** 20%

REST BMP TYPE*	BMP CLASS	IMP ACRES	EST IMPL COST	% ISRP COMPLETE	IMP STATUS**	PROJECTED IMPL YR	
<b>Operational Programs</b>							
MSS	A	80	\$50,000	1.1%	Planning	FY 2019	
SDV	A	14	\$72,000	0.2%	Planning	FY 2019	
SEPP	A	25	\$100,000	0.3%	Planning	FY 2019	
MSS	A	80	\$50,000	1.1%	Planning	FY 2020	
SDV	A	14	\$72,000	0.2%	Planning	FY 2020	
SEPP	A	25	\$100,000	0.3%	Planning	FY 2020	
MSS	A	80	\$50,000	1.1%	Planning	FY 2021	
SDV	A	14	\$72,000	0.2%	Planning	FY 2021	
SEPP	A	25	\$100,000	0.3%	Planning	FY 2021	
MSS	A	80	\$50,000	1.1%	Planning	FY 2022	
SDV	A	14	\$72,000	0.2%	Planning	FY 2022	
SEPP	A	25	\$100,000	0.3%	Planning	FY 2022	
MSS	A	80	\$50,000	1.1%	Planning	FY 2023	
SDV	A	14	\$72,000	0.2%	Planning	FY 2023	
SEPP	A	25	\$100,000	0.3%	Planning	FY 2023	
Average Operations Next Two Years (FY2019-FY2020)		119.0	\$444,000	2%			
Average Operations Permit Term (FY2015-FY2020)		127.40	\$2,404,774	1.7%			
Average Operations Permit Term & Projected Years (FY2015-FY2023)		125.0	\$3,070,774	1.7%			
<b>Capital Projects</b>							<u>Project Name</u>
MSGW	S	18.64	\$1,059,500	0.3%	Under Construction	FY2019	Charles County Plaza
MSGW, WSHW	S	34.9	\$1,691,190	0.5%	Under Construction	FY2020	Acton Hamilton Sub Gravel Wetlands
SHST	S	59.5	\$1,668,500	0.8%	Under Construction	FY2020	Swann Point WWTP Shoreline
SPSC, MRNG	S, E	29.5	\$1,395,000	0.4%	Under Construction	FY2020	Public Works Campus
SHST	A	18	\$971,100	0.2%	Under Construction	FY2020	Benedict Ave Shoreline Rest
OUT	A	1.74	\$93,970	0.0%	Under Construction	FY2020	Longmeade Lot 9 Outfall Restoration
FPU	A	8.59	\$283,470	0.1%	Planning	FY2020	Mattawoman Reforestation Sites from KCI (14 site)
FPU	A	7.6	\$250,800	0.1%	Planning	FY2020	Zekiah Reforestation Sites from KCI (7 sites)
FPU	A	4.46	\$147,180	0.1%	Planning	FY2020	Port Tobacco Reforestation Sites from KCI (2 sites)
FPU	A	0.53	\$17,490	0.0%	Planning	FY2020	Gilbert Reforestation Sites from KCI (1 site)
SHST	A	82	\$1,430,099	1.1%	Planning	FY2021	Cliffton Shoreline Stabilization Phase 1
SHST	A	92.7	\$1,616,710	1.3%	Planning	FY2021	Cliffton Shoreline Stabilization Phase 2
MSGW, FBIO	S, E	6.14	\$616,628	0.1%	Planning	FY2021	Lackey High
MSHW, FBIO, MSWB	S, E	1.69	\$197,600	0.0%	Planning	FY2021	TC Martin Elem
OUT, PWET	S	6.81	\$436,020	0.1%	Planning	FY2021	Piccowaxen Middle/Higdon Elem
MSGW, FBIO	S, E	7.11	\$513,588	0.1%	Planning	FY2021	McDonough High (3 Gravel Wetlands & 1 Bio)

PWED	S	29	\$1,913,942	0.4%	Planning	FY2021	La Plata High
MSWG	S	3.86	\$347,162	0.1%	Planning	FY2021	General Smallwood Middle
MSHW	S	11.83	\$310,420	0.2%	Planning	FY2021	JC Parks Elem/Matthew Henson Middle
STRE	S, A	6.4	\$519,980	0.1%	Planning	FY2021	Laurel Branch - Apple Creek Ct
ODSW, FSND, OUT	S, A	13.76	\$1,003,733	0.2%	Planning	FY2021	Bensville Park Outfalls, Retrofits & Tree Planting
STRE	A	14.8	\$977,613	0.2%	Planning	FY2021	Higdon Elem Stream Restoration
STRE	A	5.52	\$689,233	0.1%	Planning	FY2021	St. Charles Parkway Stream Restoration
PWED	S	7.27	\$784,370	0.1%	Planning	FY2021	South Hampton Pond Retrofits
STRE	A	16	\$1,455,900	0.2%	Planning	FY2022	Bridle Path Stream Restoration
STRE	A	24	\$1,548,000	0.3%	Planning	FY2022	Marbella Stream Restoration
STRE	A	18.58	\$2,009,100	0.3%	Planning	FY2022	Ruth B. Swann Stream Restoration
STRE	A	18.5	\$1,206,000	0.2%	Planning	FY2022	Ruth B. Swann Tributary Stream Restoration
STRE	A	32	\$2,064,000	0.4%	Planning	FY2022	Oak Ridge Park - Western Stream Restoration
STRE	A	20	\$1,290,000	0.3%	Planning	FY2022	Oak Ridge Park - Eastern Stream Restoration
STRE	A	17.5	\$1,128,750	0.2%	Planning	FY2022	CSM Tributaries Stream Restoration
PWED, STRE	S, A	17.2	\$1,353,300	0.2%	Planning	FY2022	Milton Somers Pond Retrofit (10.2 ac.) and Stream
SHST	A	70	\$2,488,289	0.9%	Planning	FY2022	Potomac Heights Shoreline Stabilization
STRE	A	28	\$1,806,000	0.4%	Planning	FY2023	Port Tobacco Stream Restoration
MSGW	S	12.66	\$683,640	0.2%	Planning	FY2023	Warren Drive Submerged Gravel Wetland
STRE	A	6	\$387,000	0.1%	Planning	FY2023	Warren Drive Stream Restoration
PWED	S	3.25	\$214,494	0.0%	Planning	FY2023	Cedar Tree Lane Pond Retrofit
PWED	S	9.07	\$844,190	0.1%	Planning	FY2023	Wilton Court Pond Retrofit
STRE	A	87	\$5,611,500	1.2%	Planning	FY2023	King Edward Stables Stream Restoration
STRE	A	5.5	\$354,750	0.1%	Planning	FY2023	Peach Run Stream Restoration
Subtotal Capital Next Two Years (FY2019-FY2020)		183.46	\$7,578,200	2.5%			
Subtotal Capital Permit Term (FY2015-FY2020)		386.3	\$19,161,868	5.2%			(Includes projects since FY2008)
Subtotal Capital Permit Term & Projected Years (FY2015-FY2023)		1060.45	\$54,963,879	14.3%			(Includes projects since FY2008)
<b>Other</b>							
SEPD	A	7.28	\$0	0.1%	Planning	FY2019	28 Septic Denitrification Units 28 x .26 acres)
SEPC	A	1.95	\$0	0.0%	Planning	FY2019	5 Septic Connections (5 x 0.39 acres)
SHST	A	10	\$0	0.1%	Planning	FY2019	250 l.ft. of private shoreline stabilization
MRWH	E	0.04	\$0	0.0%	Planning	FY2019	20 Rain barrel installations (20 x .002)
SEPD	A	7.28	\$0	0.1%	Planning	FY2020	28 Septic Denitrification Units 28 x .26 acres)
SEPC	A	1.95	\$0	0.0%	Planning	FY2020	5 Septic Connections (5 x 0.39 acres)
SHST	A	10	\$0	0.1%	Planning	FY2020	250 l.ft. of private shoreline stabilization
MRWH	E	0.04	\$0	0.0%	Planning	FY2020	20 Rain barrel installations (20 x .002)
SEPD	A	7.28	\$0	0.1%	Planning	FY2021	28 Septic Denitrification Units 28 x .26 acres)
SEPC	A	1.95	\$0	0.0%	Planning	FY2021	5 Septic Connections (5 x 0.39 acres)
SHST	A	10	\$0	0.1%	Planning	FY2021	250 l.ft. of private shoreline stabilization
MRWH	E	0.04	\$0	0.0%	Planning	FY2021	20 Rain barrel installations (20 x .002)
SEPD	A	7.28	\$0	0.1%	Planning	FY2022	28 Septic Denitrification Units 28 x .26 acres)
SEPC	A	1.95	\$0	0.0%	Planning	FY2022	5 Septic Connections (5 x 0.39 acres)
SHST	A	10	\$0	0.1%	Planning	FY2022	250 l.ft. of private shoreline stabilization
MRWH	E	0.04	\$0	0.0%	Planning	FY2022	20 Rain barrel installations (20 x .002)

SEPD	A	7.28	\$0	0.1%	Planning	FY2023	28 Septic Denitrification Units 28 x .26 acres)
SEPC	A	1.95	\$0	0.0%	Planning	FY2023	5 Septic Connections (5 x 0.39 acres)
SHST	A	10	\$0	0.1%	Planning	FY2023	250 l.ft. of private shoreline stabilization
MRWH	E	0.04	\$0	0.0%	Planning	FY2023	20 Rain barrel installations (20 x .002)
Subtotal Other Next Two Years (FY2019-FY2020)		39	\$0	0.52%			
Subtotal Other Permit Term (FY2015-FY2020)		378	\$0	5.1%			
Subtotal Other Permit Term & Projected Years (FY2015-FY2023)		436	\$0	5.9%			
<b>Total Next Two Years (FY2019-FY2020)</b>		<b>341.0</b>	<b>\$8,022,200</b>	<b>4.6%</b>			
<b>Total Permit Term (FY2015-FY2020)</b>		<b>892.1</b>	<b>\$21,566,642</b>	<b>12.1%</b>			(Includes projects since FY2008)
<b>Total Permit Term &amp; Projected Years (FY2015-FY2023)</b>		<b>1621.7</b>	<b>\$58,034,653</b>	<b>21.9%</b>			(Includes projects since FY2008)

**Notes:**

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.

BMP domains are from MDE Geodatabase.

IMPL STATUS domains are: Complete (End of 1-Year Warranty Period), Under Construction, or Planning, per MDE Geodatabase.

IMPL COST is a summation and not an average.

King, D. and Hagan, P., (2011) *Costs of Stormwater Management Practices in Maryland Counties*, UMCES.

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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	PAST UP THRU FY2016-FY2017	CURRENT YEAR FY 2018	PROJECTED YEAR 1 FY 2019	PROJECTED YEAR 2 FY 2020	PROJECTED YEAR 3 FY 2021	PROJECTED YEAR 4 FY 2022	PROJECTED YEAR 5 FY 2023	TOTAL COSTS
<b>Operating Expenditures (costs)</b>								
Street Sweeping Program (Watershed Protection and Restoration)	\$107,007	\$105,200	\$107,000	\$109,100	\$111,300	\$113,600	\$115,800	\$769,007
Inlet Cleaning (Watershed Protection and Restoration)	\$224,554	\$201,600	\$204,900	\$209,100	\$213,300	\$217,700	\$222,000	\$1,493,154
Support of Capital Projects (Watershed Protection and Restoration)	\$403,261	\$107,500	\$102,400	\$104,500	\$106,900	\$109,200	\$111,500	\$1,045,261
Debt Service Payment (Watershed Protection and Restoration)	\$1,635,710	\$1,413,100	\$1,653,800	\$2,519,400	\$4,070,000	\$5,049,800	\$5,742,600	\$22,084,410
Septic Pump-Out (Environmental Service Fund)	\$172,391	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$772,391
<b>Capital Expenditures (costs)</b>								
General Fund (Paygo)								\$0
WPR Fund (Paygo)	\$1,061	\$120,000	\$67,000	\$70,000	\$74,000			\$332,061
Debt Service	\$8,878,976	\$4,800,000	\$7,000,000	\$15,958,500	\$27,237,500	\$11,652,000	\$12,063,000	\$87,589,976
Grants & Partnerships								\$0
Other (please stipulate capital expenditure)*	-	-	-	-	-	-	-	\$0
Subtotal operation and paygo:	\$2,543,984	\$2,047,400	\$2,235,100	\$3,112,100	\$4,675,500	\$5,590,300	\$6,291,900	\$26,496,284
<b>Total expenditures:</b>	<b>\$11,422,960</b>	<b>\$6,847,400</b>	<b>\$9,235,100</b>	<b>\$19,070,600</b>	<b>\$31,913,000</b>	<b>\$17,242,300</b>	<b>\$18,354,900</b>	<b>\$114,086,260</b>

Total ISRP costs except debt service: \$92,001,850  
 Compare ISRP costs (except debt service) / total ISRP proposed actions: 159%

**Check with MDE Geodatabase:**

The total current FY 2018 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 2019 expenditure should be less than the combined total of the "OP\_budget" and "CAP\_budget" fields in the fiscal analyses table of the geodatabase.

\*Insert additional rows as necessary.

**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 2017	CURRENT YEAR FY 2018	PROJECTED YEAR 1 FY 2019	PROJECTED YEAR 2 FY 2020	PROJECTED YEAR 3 FY 2021	PROJECTED YEAR 4 FY 2022	PROJECTED YEAR 5 FY 2023	TOTAL NEXT 2-YEARS FY 19-20*	TOTAL
Annual Revenue** Appropriated for ISRP***	\$11,739,405	\$8,459,400	\$10,919,600	\$19,888,700	\$31,213,700	\$15,596,100	\$16,047,200	\$30,808,300	\$113,864,105
Annual Costs towards ISRP***	\$11,422,960	\$6,847,400	\$9,235,100	\$19,070,600	\$31,913,000	\$17,242,300	\$18,354,900	\$28,305,700	\$114,086,260
<b>Compare revenue appropriated / annual costs:</b>								<b>109%</b>	
<b>WPRP 2018 Reporting Criteria</b>								<b>100%</b>	

ISRP = Impervious Surface Restoration Program, or 20% Restoration Requirement

\* 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 2020.

\*\* 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 2018 at the time of FAP reporting.

\*\*\* See table of ISRP Cost.

\*\*\*\* Annual Revenues include revenues from the Environmental Service Fund that is dedicated for the Septic Pump Out Reimbursement Program: \$100,000.

**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 THRU FY 2017	CURRENT YEAR FY 2018	PROJECTED YEAR 1 FY 2019	PROJECTED YEAR 2 FY 2020	PROJECTED YEAR 3 FY 2021	PROJECTED YEAR 4 FY 2022	PROJECTED YEAR 5 FY 2023	TOTAL PERMIT CYCLE
<b>Paygo Sources</b>								
Stormwater Remediation Fees (WPR Fund)	\$ 3,733,100	\$ 2,781,500	\$ 3,094,700	\$ 3,141,400	\$ 3,182,300	\$ 3,223,100	\$ 3,262,100	\$ 22,418,200
Miscellaneous Fees (WPR Fund)	\$ 119,065	\$ 57,900	\$ 57,900	\$ 68,800	\$ 69,900	\$ 71,000	\$ 72,100	\$ 516,665
General Fund	\$ 623,158	\$ 550,000	\$ 550,000	\$ 550,000	\$ 550,000	\$ 550,000	\$ 550,000	\$ 2,273,158
Fund Balance (WPR Fund)	\$ 203,066	\$ 170,000	\$ 117,000	\$ 70,000	\$ 74,000	\$ -	\$ -	\$ 634,066
Sediment & Erosion Control Fees (Inspection & Review)	\$ 774,981	\$ 377,500	\$ 377,500	\$ 377,500	\$ 377,500	\$ 377,500	\$ 377,500	\$ 1,907,481
Stormwater Maintenance Inspection Fees (Inspection)	\$ 665,870	\$ 350,000	\$ 350,000	\$ 350,000	\$ 350,000	\$ 350,000	\$ 350,000	\$ 1,715,870
Subtotal Paygo Sources	\$ 6,119,240	\$ 4,286,900	\$ 4,547,100	\$ 4,557,700	\$ 4,603,700	\$ 4,571,600	\$ 4,611,700	\$ 29,465,440
<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 2017).</b>								
County Transportation Bonds								\$ -
General Obligation Bonds	\$ 6,880,000	\$ 4,800,000	\$ 7,000,000	\$ 15,958,500	\$ 27,237,500	\$ 11,652,000	\$ 12,063,000	\$ 85,591,000
Revenue (Utility) Bonds								\$ -
State Revolving Loan Fund								\$ -
Public-private partnership (debt service)								\$ -
Subtotal Debt Service	\$ 6,880,000	\$ 4,800,000	\$ 7,000,000	\$ 15,958,500	\$ 27,237,500	\$ 11,652,000	\$ 12,063,000	\$ 85,591,000
<b>Grants and Partnerships (no payment is expected)</b>								
State funded grants								\$ -
Federal funded grants								\$ -
Public-private partnership (matched grant)								\$ -
Subtotal Grants and Partnerships	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Annual Sources of Funds</b>	<b>\$ 12,999,240</b>	<b>\$ 9,086,900</b>	<b>\$ 11,547,100</b>	<b>\$ 20,516,200</b>	<b>\$ 31,841,200</b>	<b>\$ 16,223,600</b>	<b>\$ 16,674,700</b>	<b>\$ 115,056,440</b>
<b>Percent of Funds Directed Toward ISRP</b>	<b>97.30%</b>	<b>80.94%</b>	<b>84.57%</b>	<b>95.89%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	

Compare total permit term paygo ISRP costs / subtotal permit term paygo sources: 90%  
 Compare total permit term ISRP costs / total permit term annual sources of funds: 99%

\* WPR Fund: Watershed Protection and Restoration Fund.

**Check with MDE Geodatabase:**

The total sources related to WPR Funds in Current FY 2018 should march the "WPR\_Fund" field of the geodatabase.

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

Baseline: 7,402

Requirement: 20%

REST BMP ID	REST BMP TYPE	BMP CLASS	NUM BMP	IMP ACRES	BUILT DATE	IMPL COST	% ISRP Complete	IMPL STATUS	GEN COMMENTS
<b>Operational Programs</b>									
Mechanical Street	MSS	A	1	80	6/30/2015	\$48,750	1.1%	Complete	FY 2015 (200 Tons x 0.40 acres)
Storm Drain Vacuuming	SDV	A	468	14.44	6/30/2015	\$72,182	0.2%	Complete	FY 2015 (36.1 Tons x 0.40 acres)
Septic Pump-Out	SEPP	A	821	24.63	6/30/2015	\$98,755	0.3%	Complete	FY 2015 (821 x 0.03 acres)
Mechanical Street	MSS	A	1	85.24	6/30/2016	\$50,682	1.2%	Complete	FY 2016 (213.1 Tons x 0.04 acres)
Storm Drain Vacuuming	SDV	A	192	22.96	6/30/2016	\$75,613	0.3%	Complete	FY 2016 (57.4 Tons x 0.04 acres)
Septic Pump-Out	SEPP	A	764	22.9	6/30/2016	\$90,130	0.3%	Complete	FY 2016 (764 x 0.03 acres)
Mechanical Street	MSS	A	1	76.8	6/30/2017	\$50,705	1.0%	Complete	FY 2017 (192 Tons x 0.40 acres)
Storm Drain Vacuuming	SDV	A	109	12.24	6/30/2017	\$78,104	0.2%	Complete	FY 2017 (30.6 Tons x 0.40 acres)
Septic Pump-Out	SEPP	A	649	19.47	6/30/2017	\$82,260	0.3%	Complete	FY 2017 (649 x 0.03 acres)
Mechanical Street	MSS	A	1	66.8	6/30/2018	\$100,632	0.9%	Complete	FY 2018 (167 Tons x 0.40 acres)
Storm Drain Vacuuming	SDV	A	170	11.8	6/30/2018	\$90,359	0.2%	Complete	FY 2018 (29.5 Tons x 0.40 acres)
Septic Pump-Out	SEPP	A	711	21.33	6/30/2018	\$91,822	0.3%	Complete	FY 2018 (711 x 0.03 acres)
Storm Drain Vacuuming	SDV	A	21	94	10/10/2017	\$1,030,780	1.3%	Complete	FY 2018 Pinefield Drainage Impr.
Average Operations Complete To Date*			3,909	130.38		\$1,960,774	1.8%		
<b>Capital Projects</b>									
CH14RST000001	WSHW	S	1	12	4/16/2008	\$143,143.00	0.2%	Complete	Middleton Elem Shallow Marsh
CH14RST000002	WSHW	S	1	25.33	4/16/2008	\$1,464,000.00	0.3%	Complete	Brown Elem Shallow Marsh
CH14RST000003	WPWS	S	1	3	4/16/2008	\$201,610.00	0.0%	Complete	Fillmore Wet Swale
CC14RST000009	WPWS	S	1	5	4/16/2008	\$58,467.00	0.1%	Complete	Middleton Elem Wet Swale
CH14RST000007	ODSW	E	2	0.73	5/8/2013	\$133,900.00	0.0%	Complete	Bryans Road Dry Swales (A&B)
CC15RST000004	FUND	S	1	8.92	5/8/2013	\$1,778,955.00	0.1%	Complete	Bryans Road Underground Filter
CH14RST000004	WPWS	S	1	22.34	5/17/2013	\$1,092,695.00	0.3%	Complete	Pinefield Pond Expansion
CH15RST000002	MSWG	E	1	0.95	4/22/2014	\$121,716.00	0.0%	Complete	Ryon Woods Grass Swale
CC15RST000010	MRNG	E	1	0.15	9/12/2014	\$42,000.00	0.0%	Complete	Benedict Rain Garden
CH15RST000001	WPWS	S	1	8	5/6/2015	\$282,676.00	0.1%	Complete	Action Lane Roadway Pond
CH15RST000006	SPSC	S	1	9.51	6/8/2015	\$930,632.00	0.1%	Complete	Fox Run Step Pools
CH16RST000001	SPSC	S	1	11.97	8/31/2016	\$1,315,613.00	0.2%	Complete	Tanglewood Step Pools
CH16RST000005	MSGW	S	1	5.8	1/5/2017	\$531,088.00	0.1%	Complete	White Plains Gravel Wetland
CH15RST000009	MSGW	S	1	2.6	5/18/2017	\$97,239.00	0.0%	Complete	Tenth District VFD Gravel Wetland
CH16RST000002	SPSC	S	1	49.22	8/4/2017	\$1,608,703.00	0.7%	Complete	Holly Tree Lane Step Pools
CH16RST000003	MSGW	S	1	15.2	8/15/2017	\$1,068,248.00	0.2%	Complete	Pinefield Temi Gravel Wetland
CH16RST000004	PWED	S	1	1.68	9/12/2017	\$49,909.00	0.0%	Complete	Potomac Heights Pond
CH18RST000007	MSWG	E	21	20.44	9/12/2017	\$663,074.00	0.3%	Complete	Potomac Heights Grass Swales
Subtotal Capital Complete To Date			39	202.84		\$11,583,668	2.74%		

Other									
	REDE	A	1	0.46	8/25/2015	\$0.00	0.0%	Complete	Vivian Adams Drive 090101_1
	REDE	A	2	0.48	5/12/2015	\$0.00	0.0%	Complete	SMO-Smallwood Drive 120109
	SEPC	A	2	0.78	6/30/2010	\$0.00	0.0%	Complete	Septic Connection to Sewer
	SEPC	A	8	3.12	6/30/2011	\$0.00	0.0%	Complete	Septic Connection to Sewer
	SEPC	A	4	1.56	6/30/2012	\$0.00	0.0%	Complete	Septic Connection to Sewer
	SEPC	A	5	1.95	6/30/2013	\$0.00	0.0%	Complete	Septic Connection to Sewer
	SEPC	A	1	0.39	6/30/2014	\$0.00	0.0%	Complete	Septic Connection to Sewer
	SEPC	A	1	0.39	6/30/2015	\$0.00	0.0%	Complete	Septic Connection to Sewer
	SEPC	A	1	0.39	6/30/2016	\$0.00	0.0%	Complete	Septic Connection to Sewer
	SEPC	A	2	0.78	6/30/2017	\$0.00	0.0%	Complete	Septic Connection to Sewer
	SEPC	A	0	0	6/30/2018	\$0.00	0.0%	Complete	Septic Connection to Sewer
	SEPD	A	13	3.38	6/30/2008	\$0.00	0.0%	Complete	Septic Denitrification
	SEPD	A	19	4.94	6/30/2009	\$0.00	0.1%	Complete	Septic Denitrification
	SEPD	A	53	13.78	6/30/2010	\$0.00	0.2%	Complete	Septic Denitrification
	SEPD	A	3	0.78	6/30/2011	\$0.00	0.0%	Complete	Septic Denitrification
	SEPD	A	7	1.82	6/30/2012	\$0.00	0.0%	Complete	Septic Denitrification
	SEPD	A	12	3.12	6/30/2013	\$0.00	0.0%	Complete	Septic Denitrification
	SEPD	A	18	4.68	6/30/2014	\$0.00	0.1%	Complete	Septic Denitrification
	SEPD	A	29	7.54	6/30/2015	\$0.00	0.1%	Complete	Septic Denitrification
	SEPD	A	28	7.28	6/30/2016	\$0.00	0.1%	Complete	Septic Denitrification
	SEPD	A	35	9.1	6/30/2017	\$0.00	0.1%	Complete	Septic Denitrification
	SEPD	A	36	9.36	6/30/2018	\$0.00	0.1%	Complete	Septic Denitrification
	SHST	A	15	57.16	6/30/2013	\$0.00	0.8%	Complete	Private Shoreline Stabilizations
	SHST	A	20	81.8	6/30/2015	\$0.00	1.1%	Complete	Private Shoreline Stabilizations
	SHST	A	11	62.08	6/30/2016	\$0.00	0.8%	Complete	Private Shoreline Stabilizations
	SHST	A	6	25.88	6/30/2017	\$0.00	0.3%	Complete	Private Shoreline Stabilizations
	SHST	A	3	36.76	6/30/2018	\$0.00	0.5%	Complete	Private Shoreline Stabilizations
	MRWH	E	4	0.008	6/30/2015	\$0.00	0.0%	Complete	Rainbarrel Installations
	MRWH	E	10	0.02	6/30/2016	\$0.00	0.0%	Complete	Rainbarrel Installations
	MRWH	E	30	0.06	6/30/2017	\$0.00	0.0%	Complete	Rainbarrel Installations
	MRWH	E	22	0.044	6/30/2018	\$0.00	0.0%	Complete	Rainbarrel Installations
Subtotal Other Complete To Date			401	339.89		\$0	4.6%		
<b>Total Complete to Date</b>			<b>4,349</b>	<b>673.11</b>		<b>\$13,544,442</b>	<b>9.1%</b>		

**Check with MDE Geodatabase:**

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

**Notes:**

For street sweeping indicate the annual frequency that the streets are swept and for inlet cleaning indicate the number of inlets cleaned-out.

\*IMPL COST and NUM BMP is a summation and not an average.

## Attachment: Restoration BMP Type Codes

Code	Code Description
AGRE	Green Roof - Extensive
AGRI	Green Roof - Intensive
APRP	Permeable Pavements
ARTF	Reinforced Turf
BRCT	Bio-Reactor Carbon Filter
DID	Disconnection of Illicit Discharges
EDU	Education
FBIO	Bioretention
FORG	Organic Filter (Peat Filter)
FPER	Perimeter (Sand) Filter
FPRES	Floodplain Restoration
FSND	Sand Filter
FUND	Underground Filter
IBAS	Infiltration Basin
ITRN	Infiltration Trench
MENF	Enhanced Filters
MIBR	Infiltration Berms
MIDW	Dry Well
MILS	Landscape Infiltration
MMBR	Micro-Bioretention
MRNG	Rain Gardens
MRWH	Rainwater Harvesting
MSGW	Submerged Gravel Wetlands
MSWB	Bio-Swale
MSWG	Grass Swale
MSWW	Wet Swale
NDNR	Disconnection of Non-Rooftop Runoff
NDRR	Disconnection of Rooftop Runoff
NSCA	Sheetflow to Conservation Areas
ODSW	Dry Swale
PET	Pet Waste Management
PMED	Micropool Extended Detention Pond
PMPS	Multiple Pond System

Code	Code Description
PPKT	Pocket Pond
PWED	Extended Detention Structure, Wet
PWET	Retention Pond (Wet Pond)
RBS	River Bank Stabilization
SPSC	Step Pool Storm Conveyance
SUB	Sub-Soiling
TRA	Trash Removal
WEDW	Extended Detention - Wetland
WPKT	Pocket Wetland
WPWS	Wet Pond - Wetland
WSHW	Shallow Marsh
XDED	Extended Detention Structure, Dry
XDPD	Detention Structure (Dry Pond)
XFLD	Flood Management Area
XOGS	Oil Grit Separator
OTH	Other

Code	Code Description
OUT	Outfall Stabilization
SHST	Shoreline Stabilization
STRE	Stream Restoration
SEPC	Septic Connection to WWTP
SEPD	Septic Denitrification
SEPP	Septic Pumping
CBC	Catch Basin Cleaning
IMPF	Impervious Surface Elimination (to Forest)
IMPP	Impervious Surface Elimination (to Pervious)
MSS	Mechanical Street Sweeping
FPU	Planting Trees or Forestation on Previous Urban
GMB	Grass/Meadow Buffers
FB	Forest Buffers
VSS	Regenerative/Vacuum Street Sweeping
SDV	Storm Drain Vacuuming

\*Codes and descriptions from *MDE NPDES MS4, Geodatabase Design and User's Guide, May 2017*